UNIVERSIDADE CATÓLICA PORTUGUESA

SECOND LIFE:

REPRESENTATION AND REMEDIATION OF SOCIAL SPACE

Tese apresentada à Universidade Católica Portuguesa
para obtenção do grau de doutor em Ciências da Comunicação

por

Cátia Sofia Afonso Ferreira

Faculdade de Ciências Humanas

Setembro de 2012

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Sob orientação de Professora Doutora Isabel Capeloa Gil

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RESUMO

Ao longo da última década os jogos online e as plataformas sociais têm-se tornado cada vez mais populares, tendo vindo a contribuir para o desenvolvimento da internet. Os jogos online m*ultiplayer* têm conquistado cada vez mais utilizadores. Estes têm como *locus* a realidade virtual e como objetivo a recriação de um novo mundo. Um exemplo deste tipo de jogos é o S*econd Life*, um jogo social que conta com um elevado número de utilizadores – cerca de 31 milhões de utilizadores registados. Esta plataforma foi desenvolvida pela Linden Lab e reúne as características de um mundo virtual: é um cenário digital tridimensional, no qual utilizadores de todo o mundo, representados por avatares, interagem em tempo real formando diversos tipos de redes sociais. Uma das suas características distintivas é o facto de 99% do conteúdo existente dentro do espaço virtual ter sido desenvolvido pelos utilizadores. Os jogadores, denominados residentes, estão a contribuir não só na construção do espaço, mas também para o desenvolvimento social deste mundo virtual. Para além disto, existem mais quatro características que tornam o *Second Life* um objeto de estudo interessante: todos os avatares são controlados por seres humanos em tempo real; o reconhecimento de direitos de propriedade intelectual; a existência de uma micro-moeda – o Linden Dollar; e o facto de todos os jogadores terem acesso a ferramentas básicas de construção, e à linguagem de programação desenvolvida pela Linden Lab, a Linden Scripting Language, essenciais para criar objetos.

O *Second Life* é um espaço colaborativo e participativo que, apesar de ser um jogo, oferece aos seus utilizadores uma experiência muito diferente da vivida nos videojogos tradicionais. Por ser um jogo do tipo caixa de areia os jogadores podem estabelecer uma relação diferente com esta plataforma, pois podem contribuir para as diversas dimensões da vida dentro do jogo. Devido às suas características, este mundo virtual tem despertado o interesse de investigadores de diferentes áreas que têm procurado perceber o seu impacto para a interação social, educação, economia, lei, e indústrias criativas. No entanto, tendo em conta que o 'espaço' é um elemento fulcral na investigação em Ciências Humanas e uma das áreas priveligiadas pela European Science Foundation para a investigação em Ciências Sociais e Humanas, há, ainda, a necessidade de perceber como é que este espaço digital está a ser desenvolvido, e que narrativas culturais o estão a moldar. Uma vez que o *Second Life* reflete a importância dos mundos virtuais para a interação online, torna-se

fundamental compreender que impacto a virtualização das relações sociais pode ter para a interação interpessoal e para o desenvolvimento de um novo tipo de 'comunidades imaginadas'.

A presente investigação centra-se no *Second Life* e procura perceber de que forma poderá este novo espaço de interação estar a contribuir para o aparecimento de uma nova dimensão social. Uma dimensão resultante das possibilidades oferecidas por uma plataforma tecnológica apenas disponível através da internet, combinadas com o potencial criativo dos seus utilizadores. Com o intuito de contribuir para um melhor entendimento do potencial sociocultural deste mundo virtual, este estudo tem como base uma investigação empírica desenvolvida a partir de uma metodologia qualitativa específica para o estudo de comunidades online, a netnografia. Os métodos de recolha de dados adotados são: observação participante, auto-netnografia, entrevista e análise de conteúdo dos perfis dos utilizadores entrevistados. Os dados são analisados seguindo uma abordagem indutiva.

A principal hipótese deste estudo centra-se na premissa que se o *Second Life* é um mundo virtual que está a ser coproduzido pela Linden Lab e pelos utilizadores, é provável que o envolvimento dos residentes com a realidade virtual resulte na criação de um sistema de representação re-mediado. Partindo desta hipótese, os objetivos principais desta investigação são confirmar se de facto os mundos virtuais estão a ser usados para representar e re-mediar o espaço social, e perceber que efeito isto tem nos jogadores. Uma das principais conclusões retiradas prende-se com o facto de os utilizadores estarem a tirar partido deste mundo virtual para renegociarem os modelos socioculturais que informam as suas 'primeiras vidas'. Após a análise da relação que os utilizadores estabelecem com o espaço virtual, com os seus próprios avatares e entre si, concluiu-se que são três as principais narrativas culturais que estão a resultar das experiências vividas pelos residentes deste mundo virtual. As primeiras intrinsecamente relacionadas com a organização geográfica da vida humana – narrativas de espaço; as segundas, com a necessidade de nos compreendermos a nós mesmos, narrativas identitárias; e as terceiras, com o facto de os seres humanos serem na sua essência seres sociais, narrativas resultantes da interação social com outros residentes. A 're-mediação' de narrativas culturais dentro de um ambiente online, anónimo e flexível evidencia a necessidade que os seres humanos têm de

reconhecer os espaços sociais que frequentam, de modo a envolverem-se e atribuírem significado às experiências digitais vividas.

PALAVRAS-CHAVE: Mundos virtuais, *Second Life*, representação, remediação, narrativas culturais, netnografia.

ABSTRACT

Over the past decade online games and social platforms became very popular and contributed to the internet development. The massive multiplayer online games have conquered a high number of users. The *locus* of these games is virtual reality, and the main goal is the recreation of a new world. *Second Life* is one of these games, a tridimensional social platform which counts with a high number of users – around 31 million registered users. It was developed by Linden Lab and it assembles the main characteristics of a virtual worlds: it is a tridimensional digital setting where users from all over the world represented by avatars interact in real time, and develop diversified social networks. One of its main characteristics is the prevalence of *prodused* content – 99 per cent of the content existing in-world was created by residents. Players, designated residents, are not only contributing to the space construction, but also to the social development of this virtual world. Apart from this, there are four more characteristics that make this multiuser environment interesting as an object of study: all the avatars existent in-world are playing characters controlled by human beings in real time; the recognition of intellectual property rights; the existence of a micro-currency – the Linden Dollar; and all the players have access to simple building tools, and to the Linden Scripting Language, which are essential to create objects.

Second Life is a collaborative and participative space that, despite being a game, offers its users a very different experience from that lived within traditional video games. Because it is a sandbox game players are able to establish a different kind of relationship with the platform, once they can contribute to the different dimensions of the life in-world. Due to its intrinsic characteristics, this virtual world has caught the attention of researchers from several areas that showed interest in understanding the impact this virtual world may have in social interaction, education, economy, law and creative industries. Notwithstanding, considering that 'space' is a key element in the Humanities, and one of the privileged areas by the European Science Foundation for the research in Social Sciences and Humanities, it is necessary to better understand how this digital space is being developed, and which cultural narratives are shaping it. Since *Second Life* reflects the relevance of virtual worlds to online interaction, it is essential to comprehend the impact that the 'virtualization' of

social relationships may have for interpersonal interaction, and for the emergence of a new type of 'imagined communities'.

The present research is centered on *Second Life* and looks forward to understand how this new interaction space could be contributing to the emergence of a new social dimension. A dimension resulting from the possibilities offered by a technology platform only available through the internet, combined with the creative potential of its users. In order to contribute to a better understanding of the sociocultural potential of this virtual world, this study is grounded on an empirical research based on a specific qualitative methodology for studying online communities, the netnography. The methods adopted for data collection are: participant observation, auto-netnography, interview, and content analysis of the interviewees' profiles. The data collected is analyzed through an inductive approach.

The main hypothesis framing this research is the premise that if *Second Life* is a virtual world that is being *prodused* by its residents, it is probable that users' involvement with the virtual reality would result in the creation of a remediated system of representation. Based on this hypothesis, the main goals then are to confirm if virtual worlds are indeed representing and remediating social space, and to understand the effect this has on players. One of the main conclusions reached is that the users are taking advantage of the affordances of this virtual world to renegotiate the sociocultural models that frame their first lives. Through the analysis of the relationship users are establishing with the virtual space, with their own avatars, and with each other, it is concluded that there are three main cultural narratives emerging from the in-world experience lived by the residents. The first intrinsically related with the geographical organization of human life – spatial narratives; the second, with the need to make sense of oneself – narratives of identity; and the third, with the fact that humans are social beings in essence – social interaction narratives resulting from the interaction with other residents. The remediation of cultural narratives into an online, anonymous, and flexible environment evinces the need humans have for recognizable social spaces in order to be able to get involved and attribute meaning to the lived digital experiences.

TABLE OF CONTENTS

LIST OF CHARTS

INTRODUCTION

> Have you ever had a dream, Neo, that you were so sure was real? What if you were unable to wake from that dream, Neo? How would you know the difference between the dream world and the real world?[1]

> (Wachowski and Wachowski, 1999)

There are two realities, one 'real' and another that is beyond the material dimension within the virtuality created by the platform Matrix. Here, everyone lives in a simulated reality created by computers that resulted from the development of artificial intelligence. In order to control human beings, machines log them through their neurological systems into the Matrix, while their bodies are kept in capsules that reutilize all the energy produced to generate electricity. The Matrix is a simulated representation of the world as it was in 1999, developed by machines to keep the human population obedient in their captivity. However, one group of human beings escaped from life in the simulated reality, and they are trying to set humanity free from the dominion of the machines. Computer programmer Thomas A. Anderson has a second life as hacker through his alter ego Neo. Neo has inhabited the Matrix since birth, but as soon as he enters the Matrix system he realizes that "there is something wrong with the world". His search for the truth about the Matrix brought him near the group led by Morpheus, a visionary who believes that Neo is 'the One', the man prophesied to end the war against the machines. This is the motto of the science fiction (sci-fi) trilogy *The Matrix*, directed by Andy and Larry Wachowski (1999-2003). These movies introduce a future characterized by the supremacy of virtual reality.

Technological evolution has been a recurrent theme in literature and cinema since the beginning of 20th century.[2] In the beginning of the 1980s a new literary and aesthetic project began to take shape within the sci-fi genre. The main goal of this project was to bridge computer culture with pop culture. The technological future came to be associated with the urban life lived on the streets in order to exceed the utopic scenarios offered by the sci-fi works developed in the 1960s and the 1970s. This sub-genre of science fiction is called cyberpunk, and *The Matrix* trilogy is considered as some of the movies that have best explored the cyberpunk elements (cf. Gillis, 2005).

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[1] Morpheus's preparing Neo to his introduction to the Matrix.
[2] Science fiction is a genre that appeared in the 19th century. Science evolution has been the main theme of the first sci-fi narratives.

The artistic project of cyberpunk was organized by a group of writers who considered it important to represent the growing importance of information technologies in their works in a dystopian but conceivable way. They looked forward presenting readers with new imaginary worlds that should somehow be related with 'reality': "the representational apparatus of science fiction, here refined and transistorized in all kinds of new and productive ways, sends back more reliable information about the contemporary world than an exhausted realism (or an exhausted modernism either)" (Jameson, 2005: 384). Cyberpunk then is an aesthetic project characteristic of late modernity.[3] It is a hybrid genre, combining elements from prior artistic genres with an imaginary where technological development plays a main role. This imaginary is produced, and produces, a technological context that foresees a future where human and machine will be inseparable. Despite being a sub-genre of sci-fi, cyberpunk rapidly evolved from a subculture into an element of the mainstream culture. This was possible mainly because it was easier to identify the settings and plots of these narratives; in spite of being focused on a highly technological future, they were closely related to the daily experiences of the contemporary societies of the time. The eighties was the decade when personal computers started to invade people's homes, and when the internet began to assert itself as crucial communication technology, despite still being in its infancy.

The term cyberpunk has its origins in the concept coined by Norbert Wiener 'cybernetics' (Wiener, 1965 [1948]) in order to describe a new science which articulated communication and control theory: "the science of control and communication in the animal and the machine". It was used for the first time by Bruce Bethke, an American writer, in a short-story entitled 'Cyberpunk' (1983).[4] Among the most prominent authors representing this fictional genre are William Gibson, Pat Cadigan, Bruce Sterling, Lewis Shiner and Greg Bear (cf. Featherstone and Burrows, 1995). Besides postmodern literature, the cyberpunk project was also developed through cinema (film noir), crime fiction, and Japanese animation (anime). One of the primary elements of cyberpunk narratives is the constitution

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[3] Fredric Jameson (1991) proposes that late modernity is the most appropriate term to understand the cultural logic of late capitalism. Jameson articulates the conceptualization of late modernity with that of postmodernism aiming to de-characterize the conventional form of periodization.
[4] This short-story was originally published in *Amazing Science Fiction Stories*, 57: 4, November 1983. A full version was made available by the author online and may be read at http://www.infinityplus.co.uk/stories/cpunk.htm (last visited September 2012).

of cyberspace as an alternative dimension for social experience. The technological development is seen as the trigger of a radical change in the social order:

> [c]lassic cyberpunk characters were marginalized, alienated loners who lived on the edge of society in generally dystopic futures where daily life was impacted by rapid technological change, an ubiquitous datasphere of computerized information, and invasive modification of the human body.[5]

Due to the proximity of these narratives to the social context lived throughout the 1980s – the emergence of a consumer society and the development of new communication, information and entertainment technologies, Jameson considers that "cyberpunk constitutes a kind of laboratory experiment in which the geographical-cultural light spectrum and band-widths of the new system are registered" (Jameson, 2005: 385). This sub-genre, contrary to the classical sci-fi, drew the attention of different audiences, inclusively calling the attention of the youngsters. The cyberpunk aficionados seemed to be eager to get more and more involved with the technological worlds made available by the fictional works. This may be explained because it was the first time science fiction did not seem so far in the future, and "[i]t should, perhaps, come as no surprise to us that, in an increasingly hyper-aestheticized everyday life, it is through various fictions that we endeavor to come to know ourselves" (Featherstone and Burrows, 1995: 13).

The cyberpunk movement and its legitimation through the constant affirmation of communication technologies as central elements of contemporary life are paradigmatic of the postmodern 'politics of imagination' – like represented in *The Matrix*, the offline and online realms of experience have been merged through technological development. The postmodernisms characteristic from the end of the first millennium arose as a reaction against the established modernist models. They resulted from the correlation and negotiation of "the emergence of new formal features in culture with the emergence of a new type of social life and a new economic order" (Jameson, 1998: 2). The organization of a globalized public sphere made possible through advances in the modes of transportation and in the means of communication, contributed to a change in the modes of production of information, knowledge and content. Access to what is produced had also changed radically. The conventional consumer was transformed into a user, and now a new figure is

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[5] Lawrence Person, 'Notes Toward a Postcyberpunk Manifesto', available at http://project.cyberpunk.ru/idb/notes_toward_a_postcyberpunk_manifesto.html (last visited September 2012).

affirming itself, the *produser*.[6] The postmodern imagination is being shaped around these sociocultural modifications since "our imaginations are hostages to our own mode of production" (Jameson, 2005: xiii). Cyberpunk narratives are central to the postmodern imagination(s) mainly because, as Jameson calls attention to, this genre appeared as an attempt to "think the impossible totality of the contemporary world system" (Jameson, 2003 [1991]: 38). The impact of cyberpunk in popular culture has been fueled by the extension of the cyberpunk narratives in the cinema. The improvement of the special effects and the adoption of new cinematic techniques allowed the production of movies like *The Matrix* trilogy, which transport the audience to a not very distant future, where it will be possible to neurologically plug into virtual reality. The technological development of the last decade made possible the emergence of networked digital environments resembling many of the worlds described by the cyberpunk narratives. The Matrix is a virtual world in which first life reality is remediated through high-end technological devices. Despite its immateriality this digital environment is extremely complex; as Neo puts it the Matrix is a world without borders or boundaries, at least without geographical borders as we know them. The emerging interaction-rich online social spaces are also spaces where boundaries seem to be blurring – boundaries between digital and physical, first lives and second lives,[7] and between fantasy and reality.

Nowadays there are several different types of web-based environments; virtual worlds are the ones closest to the reality proposed by *The Matrix* due to its complexity. In order to better contextualize the present research, the research context will be first discussed by analyzing the role performed by virtual worlds within the scope of the state of the art of the internet. Then, the research design, and an outline of the research's organization will be presented.

1. Research Context

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[6] Produsage "[…] highlights that within the communities which engage in the collaborative creation and extension of information and knowledge […] the role of 'consumer' and even that of 'end user' have long disappeared, and the distinctions between producers and users of content have faded into comparative insignificance. [...] [R]egardless of whether they are aware of this role – they have become a new, hybrid, *produser*" (Bruns, 2008: 2). The emergence of produsage within the actual stage of development of the internet will be further explored in the section regarding the research context.

[7] Meaning physical and digital lives, respectively.

The certainty of a highly technological future has been the inspiration for many artists and, in fact technological evolution is leading towards the path foreseen by literary and audiovisual works – human experience is becoming more and more mediated, remediated,[8] and premediated[9] by technology. Over the last decade, online games and social platforms have become very popular and have contributed to the development of the internet. Virtual worlds have attracted a vast number of users: in 2007 the number of users of these virtual environments was between twenty and thirty million, but it was expected that it would grow rapidly (Castronova, 2007). And it did: according to Kzero's[10] latest report the number of registered accounts in virtual worlds in the first quarter of 2012 almost reached two billion – 1,921,000,000 registered accounts.[11] Due to the growth of the number of users registered in virtual worlds, it is necessary to research them, and to understand how users are appropriating these digital landscapes. Studying these environments may be important to 'premediate' the increasing impact new media will have in the organization of social life. The research object of this investigation is an open-ended virtual world of the sandbox type. In fact, *Second Life* takes these characteristics further by offering its players the opportunity to take part not only in world's history but also in its geographical development. Within this platform users are in fact *produsers*, they are *produsing* the landscape they inhabit, their own representatives, and the in-world society.

Second Life was developed by Linden Research, Inc. commonly known as Linden Lab, and launched on 23rd June, 2003. Nevertheless, it was only by the end of 2006 and the beginning of 2007 that this platform captivated the interest of media and new media

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[8] Jay David Bolter and Richard Grusin in their book *Remediation – Understanding New Media* (2000) propose remediation as a keyword to understand new media – new media remediate their predecessors once they refashion some of their characteristics. For instance, the internet allows users to watch movies just like TV, to listen to radio like traditional radio systems and to see pictures like painting.

[9] "Where remediation characterized what was "new" about new media at the end of the twentieth century as its insistent re-mediation of prior media forms and practices, premediation characterizes the mediality of the first decade of the twenty-first century as focused on the cultural desire to make sure that the future has already been pre-mediated before it turns into the present (or the past) – in large part to try to prevent the media, and hence the American public, from being caught unawares as it was on the morning of 11 September 2001" (Grusin, 2010: 4).

[10] Kzero is a consulting company specializing in virtual worlds, virtual goods, augmented reality and social gaming. Amongst Kzero's outputs are reports regarding the growth of virtual worlds. The main results of these reports are published on the company's website and blog – www.kzero.co.uk, and www.kzero.co.uk/blog/.

[11] Report results available at http://www.kzero.co.uk/blog/slideshare-q1-2012-universe-chart/, last visited September 2012.

researchers – from various areas such as new technologies, media and culture studies, as well as from sociology, economy and educational studies.

This platform is located in cyberspace and is available through the internet. In order to enter it one must create a profile and download the *Second Life* viewer. After logging in users may interact with each other creating a social network of contacts and services. Apart from socialization this space offers different possibilities for individual and group activities such as exploring the territory, attending concerts and theater shows, going to the cinema, creating and trading products (considered virtual property), and taking advantage of several services: banks, communication and marketing agencies, stores and even embassies, universities and religious spaces. The access to this virtual dimension is free; however there are paid activities and functionalities like owning land. Regarding the goal, in this game there is neither an ending line to cross nor knights or aliens to defeat, players just have to live and to explore available resources. Some players use this space as an alternative dimension of their social lives, while others use it as an entertainment platform. *Second Life* was not the first online social game to appear, but it is seen as one of the most important since it has a high number of users – more than 31 million registered users.[12] One of *Second Life*'s main components is *prodused* content: within this digital environment residents are active contributors to in-world development, and only one per cent of the content available was created by Linden Lab (Ondrejka, 2006: 163). Players are not only contributing to space construction – buildings, green spaces and general surroundings, but also to its social development – institutions and groups that contribute to in-world's economy, culture, identity, and hierarchical organization. Besides this, there are four more characteristics that make this multiuser virtual environment interesting as an object of study: all the avatars existent in-world are playing characters controlled by human beings in real time; intellectual property is recognized – meaning that avatars own everything they create; it has its own micro-currency – the Linden Dollar, that may be exchanged for 'real value currencies' through Linden Lab's exchange platform – LindeX; and all the players have access to simple building tools and to the Linden Scripting Language, which are the 'ingredients' to create objects (animated or not) within this virtual world.

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[12] According to Kzero – http://www.kzero.co.uk/blog/slideshare-q1-2012-universe-chart/, last visited September 2012.

The development of the internet and growth of the number of users of this technology have been very important in bringing reality near to fiction's technological worlds. In the year of the 10th anniversary of the World Wide Web, 2005, a new concept rose – a concept that intends to characterize the state of the art of the internet: web 2.0 (Musser, 2007; O'Reilly, 2005). This new expression represents not only the technical development of the network, but mainly the fact that this network has evolved quicker due to the participation of experts and users from all over the world. Web 2.0 is the result of the development of a more and more social network: "Collaboration, contribution and community are the order of the day and there is a sense in which some think that a new 'social fabric' is being constructed before our eyes" (Anderson, 2007: 4). In the last years several social applications have been developed. The goal of all of them is to induce interaction, collaboration and sharing among their users. Blogs, podcasts, wikis, social networking sites (*Facebook*, *MySpace*), content sharing networks (*YouTube*, *Flickr*) and massive multiplayer online social games (*Second Life*, *Habbo Hotel*) are among the most popular web 2.0 applications (Pascu, 2008).

The concept web 2.0 was first proposed by Tim O'Reilly[13] who set the distinction between the first stage of the commercial internet – web 1.0, and the social web emerging from the transformation of the World Wide Web into a platform. The concept was rapidly adopted, and it began to be used as a buzzword. Nevertheless, the web 2.0 phenomenon cannot be fully understood unless one sees it as something that is in permanent adjustment: "Web 2.0 is a set of social, economic, and technology trends that collectively form the basis for the next generation of the Internet – a more mature, distinct medium characterized by user participation, openness, and network effects" (Musser, 2007: 10). In a first approach to web 2.0 O'Reilly pointed out the seven principles that characterize this new understanding of the internet: web as platform, harnessing collective intelligence, data is the next 'Intel Inside',[14] end of the software release cycle, lightweight programming models, software above the level of a single device, and rich user experiences. In 2007 these principles were updated and it was proposed that they should not only be understood as principles, but above all as patterns because "the impact of Web 2.0 is now accelerating as the network

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[13] Tim O'Reilly, 'What is Web 2.0: Design Patterns and Business Models for the Next Generation of Software' (2005). Retrieved, July 2009, from http://oreilly.com/pub/a/web2/archive/what-is-web-20.html.
[14] In other words, users will trust in more extensive and precise databases as they trust that computers with the reference "Intel inside" have a trustworthy processor.

grows and becomes more ingrained into the daily lives of individuals and organizations" (Musser, 2007: 10). The core patterns considered essential to achieve success in what concerns web 2.0 then are: (1) harnessing collective intelligence – participation should be encouraged; (2) data is the next 'Intel Inside' – in order to become meaningful to users platforms should rely on databases difficult to recreate; (3) innovation in assembly – practices of remix should be welcome and fostered; (4) rich user experiences – users should be able to interact with the published content; (5) software above the level of a single device – the software should be developed for the different internet connected devices available; (6) perpetual beta – software in permanent updating; (7) leveraging the long tail – taking advantage of niche markets through online networks; and (8) lightweight models and cost-effective scalability.

I would like to suggest that the social turn of the internet is representative of the importance of technology – particularly cybernetics, within the scope of the cultural narratives that are framing postmodernity. Markham and Baym (2009) even consider that the internet is involved in the four major transformations of our era: media convergence, mediated identities, redefinition of social boundaries, and the transcendence of geographical boundaries. The internet users are the central figures in the reconfiguration of the web. Due to the importance of their role as users of the online technologies, as well as enthusiastic consumers of digital content in different formats – text, audio, video, or image, a new concept is needed to name these 'enhanced' users. Axel Bruns (2008) proposes *produsage* "as a means of connecting such developments in the cultural, social, commercial, intellectual, economic, and societal realms" (5). *Produsage* is emerging as the opposite to the industrial model of production which sees producers, distributors, and consumers as distinct entities with well-defined roles. The technological development along with the diversification of the consumer research techniques contributed to the adjustment of this model in order to include consumer feedback. The aim was to enable producers to respond exactly to consumers' needs and desires. Another development of this model was proposed by Alvin Toffler who acknowledged the existence of a new type of consumer, the *prosumer*. In order to set the difference between what Toffler call *prosumption* and what he defines as *produsage*, Bruns explains:

> what prosumption appears to envision is not a shifting of the balance between
> producers and consumers, but merely the development of even more advanced

consumption skills by consumers […] [p]rosumption, if understood in this way, therefore describes merely the perfection of the feedback loop from consumer to producer; it sketches a capitalist paradise […] where production and distribution remain driven very much by corporate interests. (Bruns, 2008: 11-12)

Produsage is taking shape around the affordances of web 2.0: its potential to encourage the formation of networks of communication and content production, decentralization, and openness. The models of *produsage* tend to be probabilistic, not hierarchic, modular, and based on sharing practices. The figure of the *produser* is a hybrid one. He may assume the role of producer of content, or just be user of what others produce. More important than trying to define under which circumstances he is being a user or a producer, one should understand these 'interactive audiences' as being able to assume both roles depending on their will. The model of *produsage* is the base of several platforms relying on users' capacity to collaborate and participate in the formation of complex digital networks.

Social games, like *Second Life*, are one of the characteristic applications of the web 2.0. They are a sub-genre of the massive multiplayer online games. These games have revolutionized not only the video games industry but the entertainment industry in general. The first online multiplayer games were remarkable, they allowed players from all over the world to get together, and play in a shared digital space. The virtualization of social space had a notorious impact on the entertainment industry and the number of networked players had grown rapidly. The first virtual multiplayer games had similar characteristics to the 'traditional' computer games of that time (end of 1990's). The great innovation was the possibility of playing not only with game characters but also with players from any part of the world. The virtual worlds made available through these games were mainly developed by video game creators, from the action spaces to the script. In some cases the players were able create their own characters and even to contribute to the plot's development. However, the goal of these games was similar to the majority of games – to win, to be the most powerful, and eventually the most feared.

The distinctiveness of massive multiplayer online social games within the scope of the massive multiplayer online games is their aim: to live. The challenge is not to be the first to achieve the end and to win the game, but to live an experience through an avatar,[15] a

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[15] The etymology of avatar proceeds from Sanskrit avatārah meaning the descending of a divinity from paradise to Earth. According to Boellstorff (2008) avatar means the incarnation of a Hindu deity (particularly

character created to live in this alternative space. This kind of game may take place in varied settings and offer different possibilities, but there is a common element – they recreate new worlds, new social spaces, second lives. Immersive social games were inspired by the cyberpunk artistic movement and its literary reference work *Neuromancer* by William Gibson (1984). These platforms are called virtual worlds, settings where humans represented by avatars interact in tridimensional digital spaces.

The will to develop alternative social spaces is becoming more and more evident with the emergence of online digital games that allow users from all over the world to interact in a highly mediated (and remediated) fictional environment. Throughout the last years many concepts were proposed to define and characterize the emerging computer-generated virtual worlds. Some of them are: synthetic world (Castronova, 2005), persistent world (Kushner, 2003), artificial world (Çapin, Pandzic, Magnenat-Thalmann, and Thalmann, 1999; Schroeder, 2002), digital world (Helmreich, 1998), mirror world (Gelernter, 1991), possible world (Ryan, 1991; Schroeder, 1996), virtual environment (Blascovich, 2002; Schroeder, 2006) and metaverse (Stephenson, 1993). The common element in the majority of these expressions is 'world', a "dangerously naturalistic metaphor" implying "an entity that has come into being without human agency and that is self-contained" (Boellstorff, 2008: 18). In the case of virtual worlds human agency may indeed be a certainty; nevertheless calling these digital complex environments worlds makes them more palpable and more 'real'. Following Ralph Schroeder's proposal (1996, 2006, 2008), within the scope of this research, virtual worlds are intended as computer-generated landscapes where users are compelled to interact with each other, but also with the environment, developing a sense of being there. The conceptualization of digital environments like *Second Life* as virtual worlds adds some elements to the equation. The 'real' world is compounded of land (territory), and inhabited by people that get organized through social structures. Virtual worlds also; only the materiality of these worlds is different, the virtual world is made of pixels, it only exists in a digital format, and it is accessed through technological devices. Nevertheless, I would like to contend that despite being highly mediated the experiences lived within these environments still are sensorial ones.

Vishnu), nevertheless "while 'avatar' […] historically referred to incarnation – a movement from virtual to actual – with respect to online worlds it connotes the opposite movement from actual to virtual, a decarnation or invirtualization" (Boellstorff 2008: 128).

According to the existence, or not, of a predetermined narrative, virtual worlds may be structured along two main types, the first invite players to take part in a predetermined narrative, while the second are sandbox games. In games having a predetermined narrative players are invited to choose an avatar that will represent them in the virtual environment. Usually there is a set of avatar types representing the different characters of the fictional world;[16] each type having their own skills. These game-worlds may be developed under different themes, but fantasy scenarios where players have to fulfill different quests and defeat monsters seem to be among the favorites.[17] While logged into these virtual environments players play the chosen role interacting with other players and with non-player characters. On the other hand, the second type has no conducting narrative; these worlds 'just' offer settings for virtual interaction. They are sandbox games: "authoring environments within which players can define their own goals and write their own stories" (Jenkins, 2007: 59). This type of virtual worlds offers players a digital space where they can build their own narratives and set the goals for being in-world. These narratives are built through the interaction with other avatars and with the setting. The majority of multiuser virtual environments are open-ended; the game does not have a determined finish line, the world exists while users inhabit it and/or until the company owner turns the servers off.

2. Research Design

The traditional approach to research design, which remains the most used by positivist sets of research, understands it as being linear, as having the need to be fulfilled in a specific order: from problem formulation to conclusions. Aiming at calling attention to the need of adjusting these models to qualitative research, Maxwell (2002) proposes an alternative model that takes into account the specificities of this type of research: "[s]uch sequential models are not a good fit for qualitative research, in which any component of the design may need to be reconsidered or modified during the study in response to new developments or to changes in some other component" (2). The alternative model proposed

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[16] In the majority of games despite having to choose a standard initial appearance, once logged in the avatar is customizable.
[17] *World of Warcraft* is the most popular game-based virtual world with over 12 million subscribers worldwide (http://www.businesswire.com/news/home/20101007005648/en).

by Maxwell is an interactive one. Despite having a definite structure, it is flexible. The model's structure is compound by five elements: goals, conceptual framework, research questions, methods, and validity. These elements are related to each other in different ways (see Figure 1).
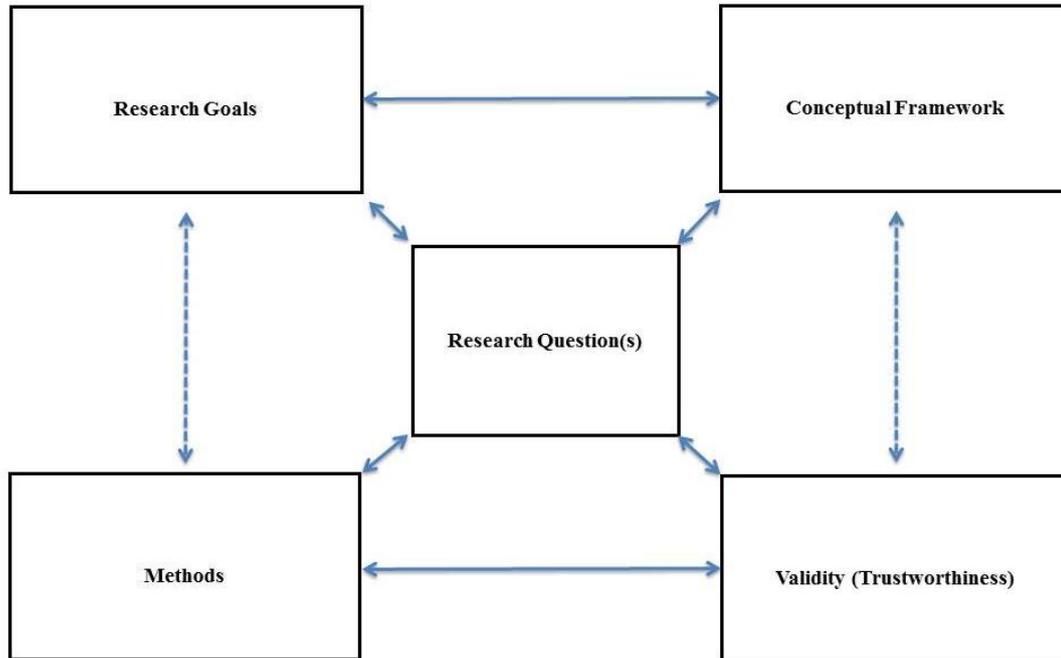
Figure 1: Interactive model of research design (adapted from Maxwell [2002])

The interactive model of research design was applied for the organization of the present research. It was considered that, in order to be able to understand *Second Life* from a sociocultural perspective, it would be very important to have the possibility of adjusting the research components throughout the study. To thoroughly characterize the elements constituting the design of the present research, each of them will be presented individually.

2.1. Goals

Previous research indicates that virtual worlds have the capacity to generate complex spaces, and researchers from several areas showed interest in understanding their impact in social interaction, education, economy, law, creative industries, and engineering. The importance of virtual worlds as a multi-modal object of study has been confirmed by scientific research conducted worldwide. Within the scope of the research conducted by

Portuguese researchers, virtual worlds have also been gaining relevance. The constitution of the Portuguese Society of Video Game Sciences,[18] which co-organizes an annual conference to promote the dissemination of the work developed by the academic community and by the industry, and the setting up of SLACTIONS,[19] an international annual conference which has been the first to be held simultaneously in several countries, as well as in *Second Life*, on the topic of metaverse platforms, indicate that the potential of these new media is being recognized. National and international research has already acknowledged that *Second Life* is allowing the emergence of a new social space.[20] Notwithstanding, considering that 'space' is a key element in the Humanities, and one of the privileged areas by the European Science Foundation for the research in Social Sciences and Humanities,[21] I would like to propose that it is necessary to broadly analyze how this social space is being developed, and how individual and collective identity narratives are being constructed within this virtual environment. Because *Second Life* reflects the importance virtual worlds have for online social interaction, I consider that it is necessary to better understand the impact that this 'virtualization' of social relations may have for interpersonal interaction, and for the constitution of a new type of 'imagined communities'. In order to contribute to a better understanding of *Second Life* and virtual worlds as alternative social spaces, the present research adopted a qualitative approach[22] aiming at comprehending the importance of this computer-generated environment to its users. The main hypothesis framing this research is the premise that if *Second Life* is a virtual world that is being *prodused* by its residents, it is probable that users' involvement with the virtual reality would result in the creation of a remediated system of representation. Based on this hypothesis, the main goals then were to confirm if virtual worlds are indeed representing and remediating social space, and to understand the effect this has on players. I would like to suggest that in order to grasp how this virtual world is being *prodused* it is necessary to recognize the impact of immersion and embodiment

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[18] More information available at http://www.spcvideojogos.org/ (last visited September 2012).

[19] More information available at http://www.slactions.org (last visited September 2012).

[20] The research on virtual worlds conducted so far in Portugal was mainly focused on specific communities of users (see, for instance, Boa-Ventura, 2011; Frias, 2010; Pita, 2008; and Pita and Pedro, 2011), and on technological applications of these platforms (see, for instance, Esteves, Fonseca, Morgado, and Martins, 2011; Lopes *et al.*, 2009; and Varejão and Morgado, 2012).

[21] One of the research programmes focusing on the relevance of space is the HERA (Humanities in the European Research Area) Joint Research Programme "Cultural Encounters" launched in 2012. More information available at http://heranet.info/hera-joint-research-programme-2 (last visited September 2012).

[22] The methods used will be further discussed in the Methods section.

within these virtual spaces; and to realize how the inhabitants of this shared environment are developing their digital existences, which cultural narratives are shaping their second lives. The main motivation for applying a sociocultural approach to this online environment was sustained by the fact that

> […] all social practices are meaningful practices, they are all fundamentally cultural. In order to conduct a social practice we need to give it a certain meaning, have a conception of it, be able to think meaningfully about it. The production of social meanings is therefore a necessary precondition for the functioning of all social practices and an account of the cultural conditions of social practices must form part of the sociological explanation of how they work. Cultural description and analysis is therefore increasingly crucial to the production of sociological knowledge. (du Gay *et. al*, 1997: 2)

The internet has played a major role in transforming the world into the global village foreseen by Marshall McLuhan (1994 [1964]). The development of this communication and information technology is allowing users from all over the world to become immersed in a virtual reality accessible through an internet-connected computer. Virtual worlds play a major role as online three-dimensional spaces for social interaction once they allow users to get immersed in an alternative reality, which has been considered as having a remarkable research potential (Bainbridge, 2007), and as being *petri dishes* for social and human sciences (Castronova, 2005).

The first multiplayer environments appeared in the 1970's, but as soon as the internet was made available for personal computers the number of these platforms rapidly increased. Nowadays there are more than 50 three-dimensional virtual environments; which are usually called massively multiplayer online games despite the existence of several types of these games. Among the most popular are the massively multiplayer online role-playing games, like *World of Warcraft* or *EverQuest*; the massive multiplayer online first-person shooters, like *PlanetSide* or *MAG*; the massive multiplayer online real-time strategy games, like *Age of Empires Online* or *Battleforge*; the massive multiplayer online sports games, *FIFA Online 2* or *Need for Speed – World*; or the massive multiplayer social games like *Second Life*. Not all these games should be classified as virtual worlds, since not all of them are persistent, nor allow players to freely explore the digital environment. The number of internet users that use this medium to play digital games is increasing.[23]

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[23] See, for instance, the 2012 report of the Entertainment Software Association, available at http://www.theesa.com/facts/pdfs/ESA_EF_2012.pdf (last visited September, 2012).

Persistent worlds are sought by an increasing number of people, and I would like to suggest that this growth reinforces the need to understand the role played by virtual worlds in contemporary social interaction.

2.2. Conceptual framework

The technological development is central to contemporary societies. The relationship between technology and society is evolving, making clear that it will be increasingly harder to separate 'actual' and digital experiences. The digital context is emerging as an alternative dimension for social interaction, a dimension which has the ability to extend human social skills beyond geographical limits in a way not offered by other means of communication. This perspective of the relationship between technology and society presumes that there is a dialogic relationship between these two elements: society shapes technology, but technology also shapes society. Lars Fuglsang (2001) considers that there are three main perspectives to understanding the relationship between society, and science and technology. These perspectives are: science and technology shape society; society shapes science and technology; and the interactive approach that considers that these elements influence each other. Despite having been developed in different historic moments, all these perspectives remain valid and are used to frame research from different fields.

The first perspective – that science and technology shape society, was settled in the years following the Second World War, and it is also designated as technological determinist approach. For the first time since the Enlightenment, science and technology were seen as the driving forces of socio-economic change (Fuglsang, 2001: 36). Despite the importance attributed to science and technology, this perspective includes the pessimist vision proposed by authors like Jacques Ellul and Jürgen Habermas, who defend science and technology as having an alienating effect upon its users. The second perspective, established during the 1970s and 1980s, sees in society the driver for socio-economic development, considering that it is society that defines the path followed by scientific and

technological innovation.[24] The third perspective, developed in the 1990s defends the interactivity between society, science, and technology. Within this scope technology is seen as having an 'interpretative flexibility': "[w]hich steps are taken in technology depends on the specific social constituencies that are involved with the technology" (*ibid*.: 40). The actor-network theory proposed by Bruno Latour and Michel Callon[25] is an example of an interactive approach to technology and society.

The perspective followed in the present research work is an interactive one. Within the scope of this study, *Second Life* will be analyzed as a technology product developed within a specific social context – that of late modernity, that is influencing, and being influenced by, users' behaviors and practices. This interactive perspective will be framed within the interpretive paradigm for the analysis of social theory (Burrell and Morgan, 2005 [1979]): "The interpretive paradigm is informed by a concern to understand the world as it is, to understand the fundamental nature of the social world at the level of subjective experience" (28). This interpretive approach is based on an ontology of change, a change that is gradual and not radical, and on a subjective epistemology. This conceptual positioning will be framed within a hybrid approach to the virtual worlds' phenomena. According to Williams (2010), the research on virtual worlds has followed two main paths, the first attempting to understand the phenomenon *per se* (see, for instance, Yee, 2006a, and Yee *et al*., 2007), and the second which sees virtual worlds as a parallel dimension for human experience (see, for instance, Bainbridge, 2007 and 2010a). For this research a hybrid approach is taken since the aim is to better comprehend the phenomenon of the *prodused* virtual world of *Second Life*, but at the same time, due to the engagement of internet users with social platforms, I also intend to understand how the in-world experience is shaped by users' offline individual and collective identities. Within this alternative approach to *Second Life* two main concepts inform the research design – representation and remediation. I suggest that the first is essential to the understanding of virtual worlds as systems of representation; and the second, to realize how the double logic of remediation – immediacy and hypermediacy, is negotiated in-world, and it is contributing to the remediation of reality.

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[24] One of the paradigmatic works reflecting this perspective is the book by Donald MacKenzie and Judy Wajcman, *The Social Shaping of Technology*, published in 1985.
[25] For instance in their works *Science in Action: How to Follow Scientists and Engineers Through Society* (1987) and 'The Sociology of an Actor-Network: The Case of the Electric Vehicle' (1986), respectively.

Representation is a key moment of the circuit of culture (du Gay *et. al*, 1997). This circuit results from the articulation of different processes and practices through which meaning is produced and shared by the members of a culture. The processes involved in the 'production' of culture are: representation, identity, production, consumption, and regulation. According to Hall (2003b [1997]), representation is a process to construct meaning that is historically and socially constituted: "[i]t does involve the use of language, of signs and images which stand for or represent things" (15). There are three main theoretical approaches to representation, all looking forward to understand where meanings come from and how they can be validated – the reflective, the intentional, and the constructionist. The first, also designated by mimetic approach, states that language, in a broad sense, only reflects meanings that already exist; the second, that language is a form of expressing what the speaker wants to say; and the third, that meaning is constructed in and through language. According to Hall (*ibid.*) the last perspective is the one which has had a greater impact on culture studies recently and because of its relevance it will be the one that will be further characterized. The two variants of the constructionist approach to representation are the semiotic and the discursive. The first is centered on how representation is constructed through language, signs, and signifiers, and has as founding father the Swiss linguist Ferdinand de Saussure.[26] The second sees the discourse as the main element of representation, considering that knowledge is produced through language. The second variant is rooted on the work developed by Michel Foucault.[27] Independently of the variant chosen to frame representation,

> "in the *constructionist perspective*, [it] involves making meaning by forging links between three different orders of things: what we might broadly call the world of things, people, events and experiences; the conceptual world – the mental concepts we carry around in our heads; and the signs, arranged into language, which 'stand for' or communicate these concepts. (Hall, 2003b [1997]: 61)

In order to understand *Second Life* as a *produced* system of representation a constructionist perspective of representation is followed. As Hall (*ibid.*: 62-3) calls attention to, both the semiotic and the discursive approach to representation have something to add to the perception of the producing of shared meanings. Throughout this research, despite the

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[26] The work developed by Saussure influenced the perspective that the relationship between representation and referent is conventional rather than essential.

[27] The main contribute of Foucault's work is the acknowledgement that representation, discourse, and knowledge are always dependent on the 'regime of truth' that contextualize them. Foucault argues that things only mean something within a specific context.

emphasis given to a more discursive approach, signs and signifiers produced in-world are also discussed.

The concept of remediation proposed by Bolter and Grusin (2000) is considered to be essential to understand *Second Life* as a representation system. This concept is focused on the intrinsic logics behind all new media forms, arguing that new media do not represent a rupture with traditional media, as initially proposed by some enthusiasts. On the contrary, new media tends to refashion some of the affordances offered by older media, combining them with attributes characteristic of the emerging digital communication. I suggest that remediation is an important concept not only to understand the role performed by new media within contemporary societies, but also to comprehend their capacity to be appropriated by users. As will be argued, within virtual worlds this appropriation results most of the time from the negotiation between offline and online individual and collective experiences, and it is essential to the production and exchange of meaning between the avatars inhabiting the virtual settlement. Due to its potential to contribute to meaning construction, I consider that remediation can be understood as a complementary process of the circuit of culture. The inclusion of remediation in this process may be justified by the fact that new media are preponderant elements of contemporary social life, and by the assertion of a new figure in the circuit of content production, the *produser*.

Since the present research aims at understanding the virtual world of *Second Life* in its communicational, social, and cultural dimensions these two core concepts need to be articulated with others considered relevant for achieving the defined goals. Throughout the different parts of this investigation concepts like virtual reality, immersion, embodiment, agency, cultural narratives, identity, cyborg, posthuman, community, performance, and interaction will be discussed in order to contribute to a broader understanding of the importance of virtual worlds. All these concepts will be analyzed under the understanding of communication and culture proposed by Carey (1992 [1989]), since the aim is to provide a sociocultural approach to virtual worlds.

Communication as symbolic culture was proposed by Carey (*ibid.*) as an alternative view of the communication process. The two more conventional approaches either saw communication as a simple process of transmission of information, or as a ritualistic activity. The perspective proposed by Carey does not exclude either of the other two, but

essentially suggests that "[t]o study communication is to examine the actual social process wherein significant symbolic forms are created, apprehended, and used" (*ibid*.: 24). It is important to understand communication as a symbolic process because the symbol systems constructed through and within communication processes are essential to make sense of reality. I would like to propose that when analyzing the development of shared social spaces like virtual worlds this understanding of communication is essential, otherwise it will not be possible to totally understand the complex phenomenon of living a digital existence through an avatar. The growth of the number of registered virtual world accounts evinces that these platforms' importance is increasing and that they are becoming more and more part of the media diet of people from all over the world, as such "they need to be understood as important systems of symbols which might have a broad social impact" (Williams, Martins, Consalvo, and Ivory: 2009: 816). Within this scope, and following the path proposed by Johnson (2010), *Second Life* will be analyzed as an online medium "for entertainment, information, socialization, business, and life in general" (xii).

2.3. Research questions

The sociocultural approach to *Second Life* aims at verifying how virtual worlds are contributing to new dimensions of experience. Within the scope of this research, besides being understood as a new media platform, *Second Life* will also be analyzed as a postmodern product which is giving its users the opportunity to extend their will of sociocultural negotiation into cyberspace.

The articulation of sociocultural theories based on the defined key concepts with an in-depth analysis of the chosen technological artifact will allow answering to questions like: To which extent are virtual worlds like *Second Life* being *prodused* as a representation of first life? Could one understand the result from the *produsage* as a remediation of social reality? What about the users, are they living in a posthuman dimension where they can reinvent themselves as cyborgs? If this transformation is indeed possible, which shape would the cybernetic organism take within this context? How do these cyborgs interact and develop meaningful digital social networks? How is social interaction organized? Are there emerging social interaction rituals that are proper from this specific interaction order?

By responding to these different questions, the ultimate goal is to look forward to answering the primary questions inherent to the defined research goals: (1) Is *Second Life* allowing the emergence of a new social space, a public-private space where cultural identities may be remediated, and where hybrid cultural narratives may rise? (2) Which is the role played by virtual worlds within the current postmodern gestuality within which social actors play not only with the available media but also with the body? In order to answer these questions it was necessary to choose the adequate research methods, as will be seen in the following section.

2.4. Methods

Quantitative and qualitative methodologies have been applied to the study of virtual environments. Despite the importance of both methods, after the review of the main studies developed within these online settings, it was considered that a qualitative approach would allow a greater knowledge of the research object. Following Robert V. Kozinets' (2010) proposal, the present research was based on netnographic research methods.

Several data collecting methods have been used in internet research, both quantitative and qualitative. Among the quantitative surveys are the most used method. There are two major methodologies for collecting data through surveys in a virtual world: the avatar managed by the researcher invites random or specific avatars to participate in the research and then apply the survey; the other hypothesis is to apply the survey through bots.[28] Amongst the qualitative ones ethnography has been the most used. Due to its social character, the internet has allowed the emergence of virtual cultures and the ethnographic method "can therefore be used to develop an enriched sense of the meanings of the technology and the cultures which enable it and are enabled by it" (Hine, 2000: 8). Among the ethnographic methods, virtual ethnography and netnography are the most used.

According to Hine (2000) there are two ways of understanding the internet: as a site where culture is formed and reformed, and as a cultural artifact. The majority of the first ethnographic studies conducted online focused on internet culture, neglecting its role as a

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[28] Bot, short form of robot. Automatic avatars that may be programmed to invite avatars to participate in a given research through answering a survey.

cultural artifact. Due to its complexity, in order to better understand the role of the internet the ideal is to combine the two approaches. Virtual ethnography is proposed by Hine (2000) as the best methodology to achieve it, once it is "an approach to the Internet which embraces the complexity offered by this form of mediated interaction" (Hine, 2000: 63).

Virtual ethnography presumes that the ethnographer is deeply engaged with cyberspace and mediated interaction, and that he is aware of the internet's main characteristics. This method is developed based in the understanding of the internet both as culture and cultural artifact. The process of developing a virtual ethnography is necessarily an adaptive one. Each researcher must adapt the method of virtual ethnography to his own research object. When describing her first virtual ethnography, Hine suggests that the ethnographer must assume that it is impossible to achieve a holistic perspective on a specific internet research object and that the ethnographic research plan must be developed according to research object intrinsic characteristics.

Due to virtual ethnography's adaptive nature, Kozinets (1998, 2002, 2006, 2010) suggests netnography as the follow-up of the first online research methodologies.[29] He argues that online research deserves its own research methods. Having Christine Hine's (2000) definition of virtual ethnography as starting point, Kozinets proposes netnography as the best methodology for online research once it is "a specialized form of ethnography adapted to the unique computer-mediated contingencies of today's social worlds" (Kozinets, 2010: 1). According to the study conducted by Bengry-Howell, Wiles, Nind, and Crow (2011) on innovation and social research methods, netnography is among the exemplary innovative methods developed within qualitative research. In order to be considered an exemplar case study, the methodologies should facilitate the study of a new area of social life; provide an understanding of the aspects of social life that are difficult to access through traditional methods; and deal with ethical, access or response issues raised by traditional approaches. The netnographic method was described and discussed in detail by Kozinets (2010), which is considered to be of major importance for the replication of the methodology (Bengry-Howell, Wiles, Nind, and Crow, 2011): "The netnographic approach is adapted to help the researcher study not only forums, chat, and newsgroups but also blogs, audiovisual,

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[29] Kozinets considers that netnography "is more an adaptation of a method, than proposing a new method" (2012).

photographic, and podcasting communities, virtual worlds, networked game players, mobile communities, and social networking sites" (Kozinets, 2010: 3).

The netnographic method is based on traditional participant-observation ethnographic procedures. As such it is very important to be accepted among the study community, and to conduct an ethical research. There are five essential steps to conduct a well-organized netnography: research plan, *entrée*, data collection, data analysis, and presentation and discussion of the results.[30] The organization of the netnographic research to be conducted began with the definition of the main goal – to understand virtual worlds as new spaces for social interaction. The research object chosen was *Second Life*, and the research question that framed the fieldwork was: Is *Second Life* being appropriated by its users and transformed into an alternative social space propitious to the remediation of cultural narratives? In order to achieve the defined goal I considered that it was necessary to understand the community of residents inhabiting this virtual world as a whole, and the first step to enter the research setting was to create an avatar. In order to analyze *Second Life*'s social context a multimodal netnographic research was conducted. The data collection methods used were detailed observational data collection, auto-netnography, informal interviews, and content analysis of interviewed users profiles. The data analysis followed an inductive approach, and the last step of this netnographic research is the present doctoral dissertation presenting and discussing the global results, as well as other preliminary pieces of research discussing specific topics resulting from the fieldwork (Ferreira, 2009, 2011a, 2011b, 2011c, 2012).

The detailed observational data collection was based on participant observation of 64 locations within *Second Life*. These locations were organized in ten thematic groups: 'newbie friendly places', 'interesting places', 'communities' spaces', 'role-playing spaces', 'wonders of *Second Life*', 'spaces for learning', 'artificial life', 'spaces for spirituality', 'spaces for dating', and 'spaces for shopping'. The choice of these locations was not

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[30] The first step includes setting the goals, choosing the research object, and defining the research question. The e*ntrée* implies the identification of the community that will be studied, and the 'entrance' into that community. Then the researcher needs to select suitable methods for his qualitative analysis. There are three types of data one can collect: archival data (data produced by the members of the community), elicited data (resulting from the interaction between the researcher and the members of the culture under analysis), and fieldnote data (resulting from the experiences lived by the researcher). The fourth stage is data analysis; the researcher should decide which is the more appropriate technique to analyze the collected data. And the fifth, and last, step concerns the presentation and discussion of the results.

arbitrary; I followed the proposal presented in *Second Life's Official Guide* (Rymaszewski *et al.*, 2008 [2007]). In the case of spaces that no longer existed, they were replaced by others from the same group that were part of *Second Life Hot Spots*[31] at the time of the selection process.

As the goal was to analyze *Second Life*'s social context, the research categories defined *a priori* were:[32] logged in users, place, region, owner, general place characteristics (area in square meters, access restrictions, main characteristics), traffic, number of avatars in the visited place, zones of higher avatar concentration, complexity level (low, medium or high), interaction potential, sub-locations, avatars description, and avatars interaction. The data collection applying this technique began in September 2009, and was concluded by June 2010. It was organized in two different phases. In the first one each of the selected locations were visited in mid-afternoon (the average login hour was around 4 p.m., Portuguese time); in the second one, the same places were re-visited at night (the average login hour was around 9 p.m.). The observation was divided into two different phases not only to check if the real time element was significant to the number and characteristics of avatars online; but also to verify if these locations suffered changes during the over nine months of the observational research. During the data collection the research avatar travelled almost two million square meters within *Second Life*. The average number of online users during the visits was 59.647, and an average of 7 avatars was met per destination.[33] Two hours was the average time spent in each location.[34]

The participant observation was combined with an auto-netnographic experience. Kedzior and Kozinets (2009) suggest that auto-netnography may be a valuable technique for data collection in virtual worlds, since:

> [a]uto-netnography is a more participative and autobiographical style of netnography that attends more closely to first-hand personal reflection as captured in fieldnotes. Because virtual worlds involve a 're-embodiment', a new sense of world or 'reworlding', and an ability to inhabit multiple worlds in multiple bodies or multiperspectivality, many of the most interesting aspects of the phenomena are

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[31] A roll provided by Linden Lab where one can find the most visited places of *Second Life*.
[32] The auto-netnographic experience was crucial to validate these categories.
[33] Among the visited locations there were those which had over 30 visitors, and others that have no visitors at that time.
[34] 4 hours and 50 minutes was the maximum period of time spent observing a single location; the minimum was half an hour.

experienced from a subjective point of view that is not easily captured through interactions or interviews with others. (Kozinets, 2010: 181)

The goal of using an auto-netnographic approach to complement the detailed observation of this virtual world, was to be able to include the firsthand experiences and challenges lived in-world in the analysis that was being developed. This stage of the fieldwork began in January 2009 and accompanied the investigation until the end.

Despite the fact that I have already played different types of video games – multi- and single-player, on and offline, getting used to *Second Life* took some time. The auto-netnography began by following the recommended path for newbies: Orientation Island, Help Island, Mainland, and then the numerous islands available in-world. To manage the avatar in a natural way took some time, it is not just a question of moving forward or picking objects; there are many options for interacting with our own avatar and with the surroundings spaces and objects, and it is necessary to get used to them. Visiting several different locations besides the ones chosen for the participant observation allowed me to better understand *Second Life*'s creative potential. In addition to the interaction with space, it is also possible to interact with the avatar by customizing it. During the auto-netnographic research different possibilities offered by this virtual world were explored: avatar personalization, shopping, camping,[35] traveling, and socializing with other avatars.

The implementation of the detailed observation and of the auto-netnography led to the conclusion that it would be necessary to use other methods in order to collect data appropriate to a better understanding of the identity dynamics occurring in-world. The complementary methods used were the informal interview and the content analysis of the interviewees' public profiles. The interviews were conducted in June 2011, using a sample of fifteen avatars. Those were selected in the top fifteen locations regarding the number of visitors by the time of the second visit during the participant observation. Each interview had an average duration of twelve minutes. The means of communication used was the built-in tool of instant messaging. The only precondition to being able to participate was the filling out of an informed consent form. This form was organized as an online survey, and asked participants to declare they will to take part in the research. Additionally, it asked permission to collect, analyze and present the results (see Appendix D). The content

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[35] A very common job in *Second Life* – business owners pay visiting avatars to 'populate' their commercial spaces. Avatars tend to prefer highly populated places to the emptiest ones.

analysis of the profiles aimed at understanding to what extent the public profile tool is used by the residents of this virtual world, and which kind of information is preferably filled. The profile is a way of publicly presenting an avatar, since the information posted may be seen by anyone interested. There are seven sections that may be filled: 2nd Life, Web, Interests, Picks, Classified, 1st Life, and My Notes. The focus of the content analysis was the information published in 2nd Life and 1st Life sections.

The data analysis followed an inductive approach, anchored on an interpretative research paradigm: "the primary purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant, or significant themes inherent in raw data, without the restraints imposed by structured methodologies" (Thomas, 2006: 237). The achieved results will be presented, framed and discussed throughout the present research work. The choice for this data analysis method was influenced by Kozinets suggestion that "[i]nductive data analysis is a way to manipulate the whole body of recorded information that you have collected over the course of your netnography" (Kozinets, 2010: 119). Combining my own experience within *Second Life* with the data collected through the detailed observation, interviews, and content analysis, would allow better understanding those that have been defined as the three main components of this type of virtual social spaces: geography, cultural identity and in-world interaction.

2.5. Validity

The validity of a research is related to its correctness. There is not a formula to assure validity, according to Maxwell (2002) each researcher need to define his own strategies to contour the validity threats (106). There are two major types of validity threats with which the researcher must deal, researcher bias and reactivity, or his effect upon the studied population. In order to deal with the specificities of the chosen research object, it was necessary to define the strategies that should be followed during the research. Researching virtual worlds is a complex task. Among the main challenges are the specificities of conducting ethnographic research online. Online interaction is characterized by alteration (additional codes and norms, abbreviations, emoticons, sets of keystrokes, and other technical skills), anonymity (which confers a new sense of identity flexibility, and identity

experimentation), accessibility (these virtual social spaces are available through any computer with an internet connection), and archiving (it is possible to keep a record of the majority online interactions, and consult them any time they are needed (cf. Kozinets, 2010: 68). In order to safeguard the validity of the present research, four of the strategies proposed by Maxwell (2002) were followed.[36]

The first validity strategy was to certify that the involvement with the research object was intensive, and long-termed. I consider that this was guaranteed by the decision of conducting a multimodal netnographic research during the whole period of the investigation. The decision to observe this virtual world for an extensive period of time, as well as that of complementing the data with alternative collection methods, intended to certify that the data collected was 'rich', and allowed answering the research questions framing the study. The third strategy followed was triangulation. This was applied to the data collected through different methods, and which needed to be verified in order to define the categories resulting from the inductive approach. The fourth strategy developed was comparison. The conclusions drawn from the data collected were compared with those discussed by other empirical research conducted within the virtual world under analysis.

I would like to argue that the strategies followed to control validity threats were essential to the possibility of generalizing some conclusions concerning this virtual settlement. It is my conviction that the decision to spend as much time in-world as possible, to collect 'rich' sets of data, to triangulate the data collected using different methods, and to compare preliminary conclusions with those resulting from the fieldwork carried out by other researchers, allowed an understanding of the sociocultural mechanisms that are behind the *produsage* of *Second Life*.

3. Research Outline

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[36] Maxwell proposes eight main strategies to deal with validity issues. When planning a qualitative research, the researcher should decide which are the more appropriate for his own research. Those strategies are: (1) intensive, long-term involvement; (2) 'rich' data; (3) respondent validation; (4) intervention; (5) searching for discrepant evidence and negative cases; (6) triangulation; (7) quasi-statistics; and (8) comparison (cf. Maxwell, 2002: 110-114).

The present research is organized in three parts. Each one focusing on a dimension of the virtual world of *Second Life* – territory, population, and social networks. The fieldwork was developed alongside the literature review, and complemented with the monitoring of the *Second Life* usage statistics. Linden Lab publishes weekly and quarterly statistical data concerning the use of this virtual world. The analysis of this data was important to understand the engagement of users with the digital environment.

The first part, 'The World', intends to analyze *Second Life*'s territory since it constitutes the setting for experiencing this virtual world. The first chapter, entitled 'Discovering a *Brave New World*', describes and analyses the constitution of the in-world geography. In order to contextualize the analysis the chapter begins with a description of the interface, characterizing the process of habituation to the avatar. The three main elements of this virtual world discussed are territory, population, and in-world social structure. The second chapter, 'Exploring the Virtual World', begins with a description of a tour through *Second Life*. The tour presented is the one I experienced during the participant observation stage. Presenting the visited places may be important for better describing the in-world territory organization, as well as to understand the degree of engagement existing between residents and the virtual world. The spatial development of this virtual world will be further explored in the subchapters regarding the transformation of space into place, and the fluidity of the in-world geography. The last subchapter aims to explain how the population has been organized around a process of stratification, allowing the emergence of an in-world class society. The third chapter of Part I presents some concluding remarks concerning the analysis of the geography of this virtual world.

The second part – 'Cultural Identity in *Second Life*', starts by contextualizing the research that has been developed around the relationship between cyberspace and identity. In order to discuss the processes of self-representation at stake when living through an avatar the first subchapter was divided into two sections. The first considering the importance of immersion, agency, and transformation for the firsthand experience of a virtual environment. And the second, focusing on the centrality of embodiment for the development of complex digital representatives. After understanding how users are creating and embodying their avatars, it will be possible to discuss the formation of self-representational digital narratives within this virtual world. I consider that the data

collected through the interviews and profile analysis will be crucial to better understanding the constitution of this type of narrative. Then I will argue that the development of identity narratives within this virtual world may be leading to the remediation of users' identities, and the process of identity remediation will be discussed. The final subchapter – 'Cyborg and Posthuman', intends to contextualize the processes of identity remediation and of technological embodiment occurring in-world within the scope of theories of the emergence of the cyborg – a hybrid creature combining human with machine, within our posthuman era. In order to realize how the 'metaphoric cyborgs' (Hayles, 1995) are being developed, it will be discussed how social markers are shaping the social life of avatars. The social markers that will be examined are age, race, and gender, and the discussion will take into consideration how these social markers are performed by residents, but also how they are informed by Linden Lab policies concerning the use of this virtual world.

The second chapter of the second part, entitled 'Cultural Identity in a New Social Space', aims to discuss the constitution of a shared cultural identity in-world. To accomplish a deep understanding of how cultural identity is being developed through shared practices and meanings I will explore the role performed by in-world virtual communities and interest groups, and define which are the most prominent cultural elements shared by the inhabitants of *Second Life*. The last subchapter will be dedicated to the organization of social space, and the goal is to realize how this virtual world is emerging as a public-private space within cyberspace. The third, and last, chapter will be focused on the presentation of the main ideas discussed throughout Part II.

The third part – 'In-world Interaction', is also organized in three chapters. The first is dedicated to an analysis of the specificities of online interaction, and the organization of the social life of avatars. The second explores the interaction between avatars and the shared virtual environment. And the third, presents some concluding remarks regarding in-world interaction. The first chapter looks forward contextualizing in-world interaction within the scope of online interaction, and also to identify the specificities of virtual worlds as social spaces. The social life of *Second Life*'s residents will be analyzed in detail. The second chapter, on the other hand, is centered on the idea that the socialization between avatars is leading to the constitution of new interaction rituals that are influencing the structuration of the in-world society. I will argue that in order to better understand how

social roles are defined, the interaction among users should be seen as social performances. The impact of these performances will be discussed within the scope of the process of remediation of social structures occurring in-world. The remediation occurs through the combination of the affordances of the virtual world, which are defined by *Second Life*'s programming code, with users' capability for appropriating this open-ended virtual world, and inscribing it with recognizable meanings. In order to better comprehend how social structures are being imported into the digital setting, two in particular will be studied: economy and law.

PART I: THE WORLD

I. Discovering a *Brave New World*

> The Matrix is everywhere, it's all around us, here even in this room. You can see it out your window, or on your television. You feel it when you go to work, or go to church, or pay your taxes. It is the world that has been pulled over your eyes to blind you from the truth.[37]
>
> (Wachowski and Wachowski, 1999)

The Matrix is a virtual environment that represents reality in a machine-controlled sphere. Even being computer-generated this space is geographically bounded. Human beings are remediated to a virtual space that resembles physical reality; instead of a futuristic technological society the virtual environment just looks like a traditional urban and industrialized city. The setting of this alternative social sphere is a grey and utilitarian enormous city – called Mega City (see Figure 2). Both the city and its inhabitants seem to have almost none distinctive characteristics: the city just looks like any modern city, and the inhabitants are all much alike.
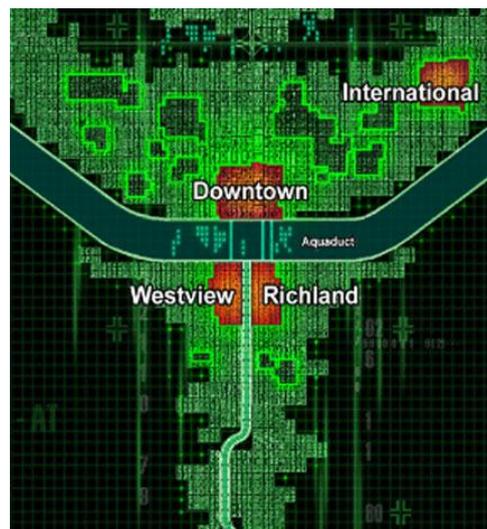
Figure 2: Mega City's map[38]

Despite being controlled by machines the Matrix looks like a common cityscape – it has an urban landscape, is inhabited by residents, people have jobs, live in houses and there is a social structure ruled by control and authority figures. The Matrix is the epitome of a futuristic virtual world where human beings will live, but not a free life, rather a technology-controlled one.

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[37] Morpheus introducing Neo to the essence of Matrix world.
[38] This map was created to be integrated in *The Matrix* video games, but it is an official representation of Mega City.

The technological development of the late twentieth century made possible to experience alternative social spaces in first-hand. This does not mean that machines took control over our lives, but that its importance is growing. Information and communication technologies have evolved greatly in the last decades. The development of a communication infrastructure that allow users to communicate, interact, and share experiences in real-time without needing to be face to face is one of the major outputs of the technological revolution we are still witnessing.

Despite seeming only possible within fictional art works, virtual worlds are more and more present in the lives of internet users. Since the first multi-user online environments users will to transcend first life constraints became evident. Since then users from all over the world get virtually together to create alternative social spaces where they are able to define their identities, as well as to choose which virtual worlds to inhabit. Hardware development made possible not having to imagine these digital social spaces anymore. Text-based worlds evolved to 2D ones and the latest use a 3D interface, which allows the development of highly immersive environments. This potential is being explored both by sandbox and goal-based games that tend to offer idyllic settings that transport users to an alternative realm for social interaction.

The first part of the present research will explore the geographical dimension of *Second Life*. In order to better understand the potential of this virtual world as a social space, the first step was to understand its environmental geography.[39] The aim is to describe *Second Life*'s interface, territory, inhabitants and social structure. *Second Life* will be analyzed from two main perspectives: its formal organization as a virtual world, and from the perspective of those who inhabit it.

1.1. *Second Life*'s Geography

The development of *Second Life* aimed at creating a world's representation in a microcosm (cf. Rymaszewski *et al*., 2008 [2007]). In a first stage it was called *Linden World* and

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[39] Following the purpose of the branch of Geography that describes the spatial aspects of interactions between humans and the natural world.

looked more like a traditional video game:[40] it had futuristic settings inhabited by flying robots. This path was dropped out once the development team realized that it would be more interesting if they allow users to cooperate in space's creation. To stimulate users' contribution for *Second Life*'s development, Linden Lab made available user-friendly editing tools, as well as the programming language used – Linden Scripting Language. The result is a complex and structured virtual world co-created by Linden Lab and users.

I suggest that in order to be able to research a virtual interactive environment, adaptation is one of the main challenges a researcher has to surpass. To feel comfortable within the gamespace is necessary to know well the avatar, the interface, and the rules of the game – spatial and social ones. The relationship one establishes with the avatar is a special one; it is one of the essential elements to develop a virtual existence, a representation in this alternative social space. After choosing a standard avatar, as will be seen in population description, and attributing it a name, is possible to log into this virtual world. After logging in a set of tools for customizing appearance become available (see Figure 3). I consider that appearance edition is the first step to better know and get used to having a virtual representation in this social virtual world. The available editing tools allow players to change every characteristic of their virtual bodies: shape, body, head, eyes, ears, nose, mouth, chin, torso, and legs. Besides editing the body, is also possible to change and edit most of the outfits – those players already have in the inventory and those they will buy during their stay.

Figure 3: Appearance edition menu

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[40] By a more traditional video game is meant a gamespace with defined goals.

The interface is similar to the majority of video games; being the main difference the set of actions available. Once within in the virtual environment tools for social interaction, build and research become available. In *Second Life* social interaction may occur in different ways; the most common mean is through chat, or instant messaging. Chat is used for public interactions, and instant messaging mainly for private ones. Since 2007 it is also possible to communicate by word of mouth, but this feature is not available in all regions. Besides oral and written communication, is also recommended to interact through non-verbal forms of communication. In avatar's inventory[41] are kept the gestures, scripts that animate the avatar and let the user express himself through non-verbal communication. Gestures are organized in categories, all avatars have a priori a set of *common gestures*, and depending on being a feminine or masculine avatar, *female* and *male gestures*. Gestures are a main feature for in-world communication, they allow users to 'give life' and expression to their virtual representations.[42] Gestures relevance may also be perceived through the existence of a shortcut next to chat and voice ones. In that mini-menu players find the most used shortcuts. Gestures are scripts and may be created using Linden Scripting Language.[43] They are also commodities and may be sold to other avatars as freebies[44] or paid products.

Regarding the building tools (see Figure 4), there are available all the tools needed to create any object in-world. Every object is made of *prims*;[45] these take the shape of cubes, prisms, pyramids, cylinders, hemicylinders, cones, hemicones, spheres, hemispheres, torus, tubes, rings, trees, and grass. It is possible to combine and 'melt' different type of *prims* and create any wanted object. Than is possible to add textures, change its colors, and to define characteristics as possibility of edition and of copy, and if it is for sale or not. Regarding the research tools (see Figure 5), a search engine is available that allows to search for anything, and specifically for people, places, events and classifieds. Besides the

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[41] The inventory is like a suitcase where all 'belongings' are kept; all avatars have one.

[42] See, for instance, Smiljana Antonijevic (2008) 'From Text to Gesture Online: A microethnographic analysis of nonverbal communication in the *Second Life* virtual environment' and Sara Pita and Luís Pedro (2011) 'Verbal and Non-Verbal Communication in *Second Life*'.

[43] Linden Scripting Language is the programming language used to animate and control all objects available in-world. As *Second Life* allows their users to contribute to world's development the code is made available to all users.

[44] Freebies in *Second Life* are all the products that cost L$0; the most common way to make products available to other avatars is by selling them for L$0.

[45] *Prims* or *primitives* are the constitutive unities of all objects available in *Second Life*. Objects with several parts have multiple *prims*.

search engine, the tool world map (see Figure 6) may be used to find people and locations through a map search, and to automatically teleport to a chosen location.
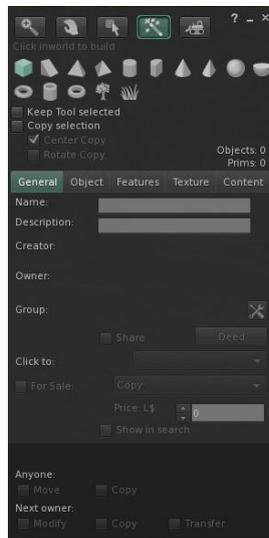
Figure 4: Building menu
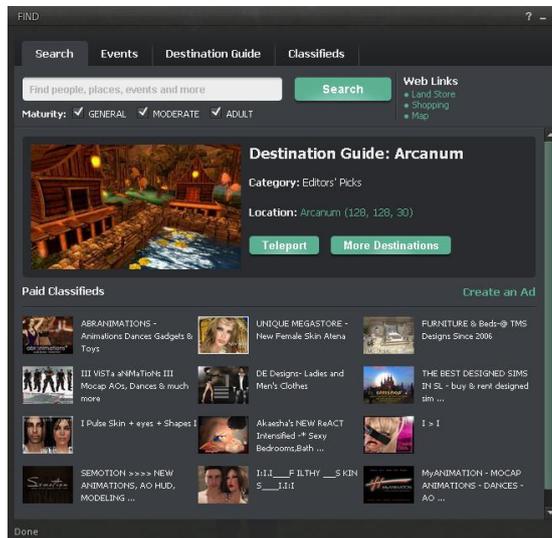
Figure 5: Search menu
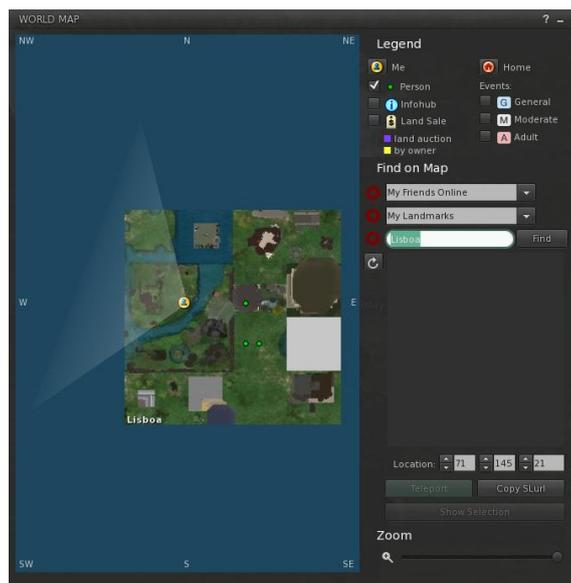
Figure 6: World Map search tool

As far as rules are concerned, respect is the main one to honor while in-world. To be part of this world, players must respect each other and the game-space. It is through respect that social networks are built.

The first step for researching this virtual world was to create an avatar. Melissa Finley (see Figure 7) represents a common girl, the goal was to look good, but without standing out. In avatar's inventory there are some clothes and accessories, and I change her outfit every now and then. The common aspect of all outfits used during the netnographic research was

their simplicity and sobriety. Some of the pieces were edited to better fit the avatar, but they do not look "high quality".[46] I would like to argue that the time spent personalizing avatar's appearance was crucial to establish a connection with Melissa Finley. Getting to know her was very important to feel comfortable in the game-space.

Figure 7: Melissa Finley, research avatar

My first destination, after logging in for the first time was Orientation Island, an island owned and managed by Governor Linden.[47] This first in-world destination is a tutorial that helps newcomers to get used to avatars and to game-space.[48] Orientation Island is a walkthrough that teaches the basics of *Second Life*: how to change appearance, to communicate, to look closer to people and objects, to grab and move objects, and how to fly. After completing the tutorial path where information is available through notes that visitors could take with them, the exit is found. Here the choice is between continuing to Help Island, or going to Mainland. I chose Help Island as second destination, because it is the next level of tutorship about this *brave new world*. Here there is information about scripts, building and freebies. The island is not organized as a walkthrough like Orientation Island, but as a small village that offers several locations – a Freebie's Store with different types of products from clothes, accessories and shoes, to avatars' components – eyes, hair, wings or fur, cars or houses, everything for L$0; Demo Area; Tutorial Zone – with information about scripting and building; and an Exit Telehub that gives access to the Mainland.

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[46] To be recognized as a resident the avatar could not look like a *newbie*. The goal was to look a regular visitor of this virtual world, one that do not stand out but that looks comfortable in-world. The intention was to be neutral to other avatars during the research time.

[47] Linden Lab's avatar.

[48] There are available some *prodused* movies about Orientation Island, as for example the one produced by Kozo Imako, available at http://www.youtube.com/watch?v=umE9M9PIrQo.

I consider that visiting these two tutorial areas was very important for learning how everything works within this virtual world, but also for meeting other avatars. In these islands is possible to meet all types of avatars; there are the SL Mentors, residents organized to help newcomers, but also newbies and older users. After exploring these two islands, Melissa Finley was ready to explore this vast virtual world.

1.1.1. Territory

Second Life is organized in three major categories: grid, estate and parcel. The grid is the system of interconnected servers that allows to experience and see in-world's territory as a whole. It is the platform that sustains the whole metaverse, and that give users access to content's database. There are two types of grids: main grid and beta grids;[49] beta grids are used to test new spaces and functionalities[50] before their incorporation in the main grid.[51] Until January 2011 the main grid was divided in two – main and teen. Main grid was originally developed for adults over 18 years old not having parental control devices. The teen grid was available from February 2005 to January 2011 and was created for teenagers between 14 and 17 years old who want to begin exploring this virtual world. Since the closing of *Teen Second Life* teenagers with ages from 13 years old can access the main grid, but with some restrictions concerning the contents they have access to.[52] *Second Life*'s main grid offers two types of estates: mainland and private estates (Rymaszewski *et al.*, 2008 [2007]: 249). Mainland is the continental area and is owned by Linden Lab since the beginning. Now it is constituted by nine continents (see Figure 8): Sansara, Heterocera Atoll, Jeogeot, Satori, Nautilus, Corsica, Gaeta V, Gaeta I and Zindra.

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[49] The main grid of *Second Life* is called Agni, and the beta grids available are Aditi, Aruna, Bharati, Chandra, Damballah, Danu, Durga, Ganga, Mitra, Mohini, Nandi, Parvati, Randha, Ravi, Siva, Shakti, Skanda, Soma, Vaak and Yami.

[50] Many of the grids are supported by private clients and these are either inaccessible to the public or no longer active. In order to change the grid you would like to connect to, press Ctrl-Shift-G on the login screen and choose the grid from the drop-down menu.

[51] Aditi was the only grid with public projects by the time of this research, and the only beta grid accessible. The two ongoing projects were Mono and Havok 4. Mono's aim is to improve the running of scripts – more information available at http://wiki.secondlife.com/wiki/Mono. Havok 4's aim is to improve objects' physics performance – more information available at http://wiki.secondlife.com/wiki/Havok_4_Beta_Home.

[52] Explanation available at http://wiki.secondlife.com/wiki/Linden_Lab_Official:Teens_in_Second_Life.

Figure 8: *Second Life* **mainland continents (numbered in order of appearance)**

Private estates, on the other hand, are independent from Linden Lab. This type of land is physically separated from mainland through water and look like islands (see Figure 9). Only residents with Premium Accounts[53] may buy and sell terrains located in mainland or in private regions. Users with basic accounts can only rent parcels on private regions. The first private region sold by Linden Lab was sold in an auction in January 2004, had a high number of bids, and had reached $1200 (cf. Au, 2008). The selling of the first parcel of land was also a milestone in *Second Life'*s development – private corporations began to invest in the metaverse. The first company that had a virtual representation in *Second Life* was Rivers Run Red, an immersive marketing agency with headquarters in London and San Francisco.[54]

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[53] In 1.1.2. the different types of user's accounts available will be analyzed.
[54] The number of first life's corporations with representation in *Second Life* is around 40. Some of them are: Adidas, Reebok, AMD, IBM, Amazon, Coca Cola, American Apparel, BBC and Nissan (data retrieved 10/08/09, from http://www.kzero.co.uk/blog/).

Figure 9: Detail of *Second Life*'s world map
[On the left side of the image we are able to see several isles or private estates]

Private estates are also called regions. Regions in *Second Life* have an area of $65,536m^2$ located in a single server. There are three types of regions: Full, Homestead and Openspace.[55] The three occupy exactly the same area, but they differ on traffic limit and terrain price. Full regions offer the best performance, they support until 15,000 *prims* and the maximum number of avatars that may be there at the same time is 100. The setup fee for these regions is $1.000 and a monthly maintenance fee of $295. Homestead regions have the lowest performance's quality and were created to have a lower population density. These are limited to 3,750 *prims* and to 20 avatars at the same time. This type of regions is available only to residents already with at least one Full region. The setup fee is $375 and the monthly maintenance fee $125. Openspace regions or light use regions are limited to 750 *prims* and up to 10 avatars at the same time. As in Homestead regions, this type of regions is only available to residents already with at least one Full region. The setup fee for these regions is $250 and the monthly maintenance fee $75.

Regions are composed by parcels – an area of land that is owned by a single user (or by a group) with a minimum of $16m^2$ and a maximum of $65,536m^2$ (a parcel that occupies the whole region). Parcels are composed of square blocks with $4m^2$ that do not need to be contiguous. When a region is acquired, the owner must define what contents will be

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[55] Information regarding *Second Life*'s geographic organization is available at https://support.secondlife.com (29/07/09).

allowed in that space: PG (parental guidance), mature or adult. All the parcels within the region must obey this classification. PG regions are those which contents are considered to be appropriate for every age. In order to have this classification regions must forbid sexually explicit or violent contents, as well as nudity. Mature classified regions are those which offer activities and contents considered non-adult but not recommend for every age, like: dance clubs (that do not allow sexual conduct), bars, stores, galleries, beaches and parks. The majority of social interaction spaces are classified as mature. The third and last category for region classification was the last to be created by Linden Lab. This appeared in April 2009 to mark the difference between mature and adult contents. Adult classification applies to all regions that allow sexually explicit and of major violence contents or the consumption of illegal substances. Regions with this classification require age verification. Due to the difficulty Linden Lab has in controlling all the contents available in each island, region's owners are responsible for everything that is in their properties. Since the creation of this new category continental zones of *Second Life* only allow PG and mature contents, and a new continent was created to adult contents – Zindra (see Figure 10). The access to this new territory requires age verification and a change in resident's maturity level.
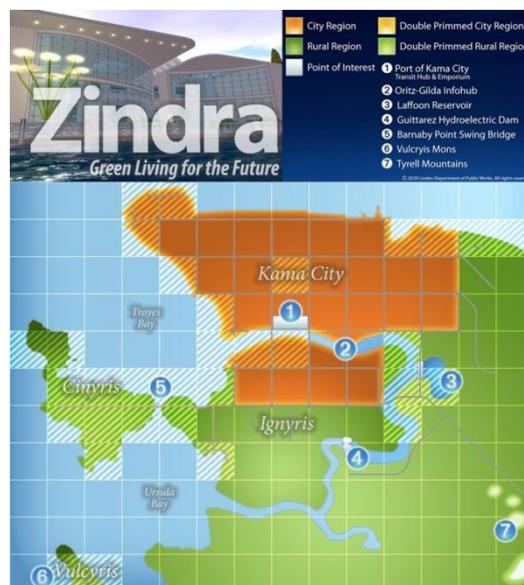
Figure 10: Zindra's map

Zindra opened to the public on 15th June 2009. In a first stage – that lasted two weeks – this continent was only available to those who wanted to contribute to its contents' creation. Due to the high number of requests for entire regions' migration to Zindra,

Linden Lab needed to enlarge its area before the delocalization beginning. The creation of a new continent associated to a new content's category reflects *Second Life*'s growth. The following maps represent its geographic evolution since its creation, yet in a beta version until 2008 (see Figures 11, 12, 13, and 14). The territory kept growing until the present day,[56] but it is very difficult to reproduce here its present world map. However, a global map is available at http://slurl.com/.
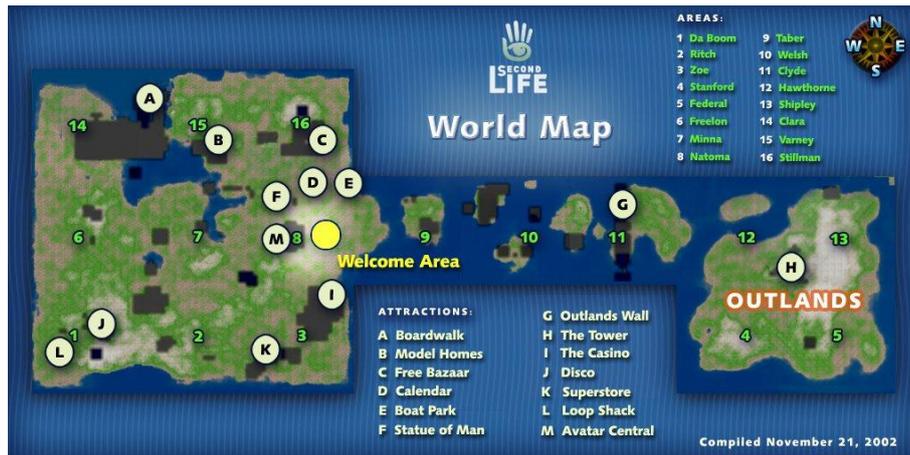
Figure 11: *Second Life*'s map on 21/11/2002

Figure 12: *Second Life*'s map on 18/06/2003

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[56] According to Linden Lab from the end of 2009 to the beginning 2011 the virtual world grown 0,09 thousand km^2.
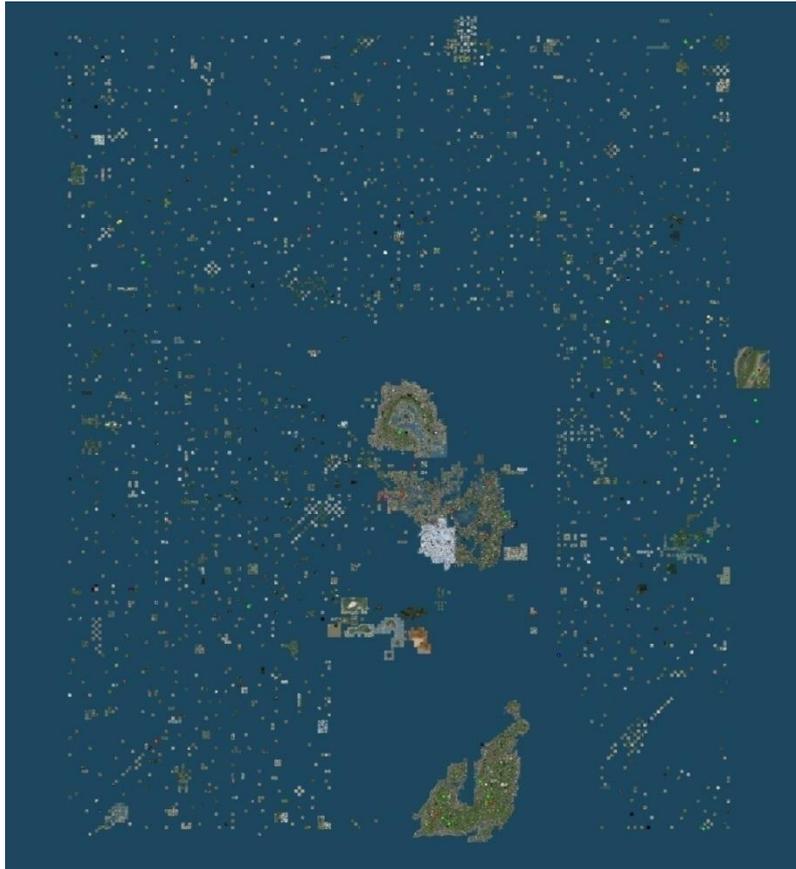
Figure 13: *Second Life*'s map on 27/05/2007
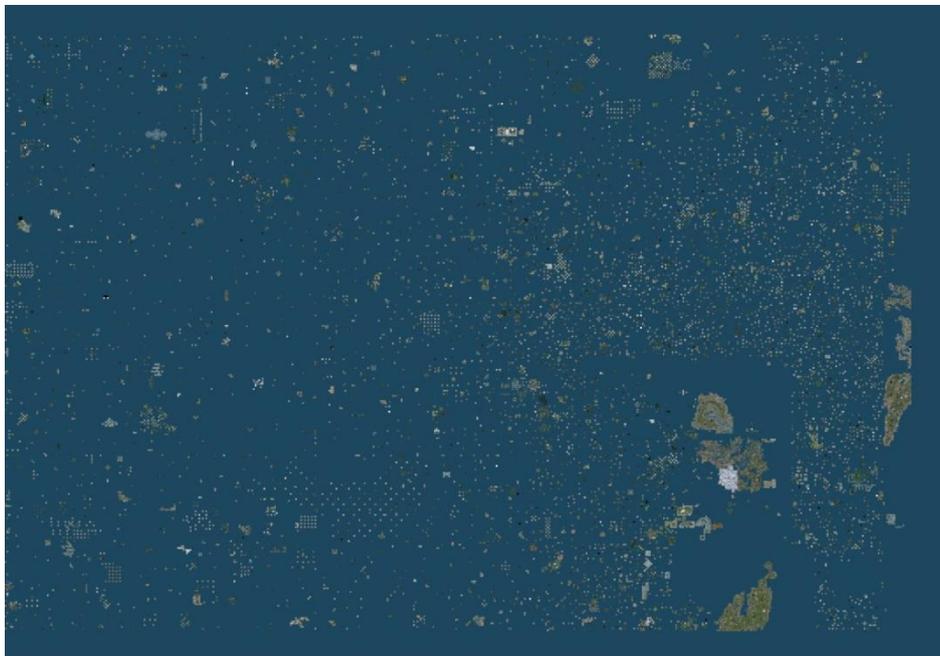
Figure 14: *Second Life*'s map on 29/04/2008

Territory's evolution was followed by real estate development. I suggest this becomes evident when the average of square meters bought in auction[57] between the second quarter 2006 and the second quarter 2010[58] are analyzed. Chart 1 shows that 2007 was the year when the volume of auctioned acres was bigger. But 2007 was also the year Linden Lab prohibited gambling activities. Until 2007 gambling was legal in *Second Life*, this activity had a very important role in in-world's economy and everyday millions of Linden Dollars were transacted through this industry; but following the US gambling law Linden Lab had forbidden all type of gambling games:

> While Linden Lab does not offer an online gambling service, Linden Lab and *Second Life* Residents must comply with state and federal laws applicable to regulated online gambling, even when both operators and players of the games reside outside of the US. And, because there are a variety of conflicting gambling regulations around the world we have chosen to restrict gambling in *Second Life* as described in a revised policy which is posted in the Knowledge Base[59] under "Policy Regarding Wagering in *Second Life*".[60]

After this change economy development decreased, but just a few months later economic flows recovered the previous levels – residents began to invest in land and traditional economic activity began to gain importance in this virtual space. From the end of 2008 until the beginning of 2010 the acres of land auctioned remain stable but in lower rates. I consider that the decrease is justified by the reduction of land plots made available by Linden Lab.
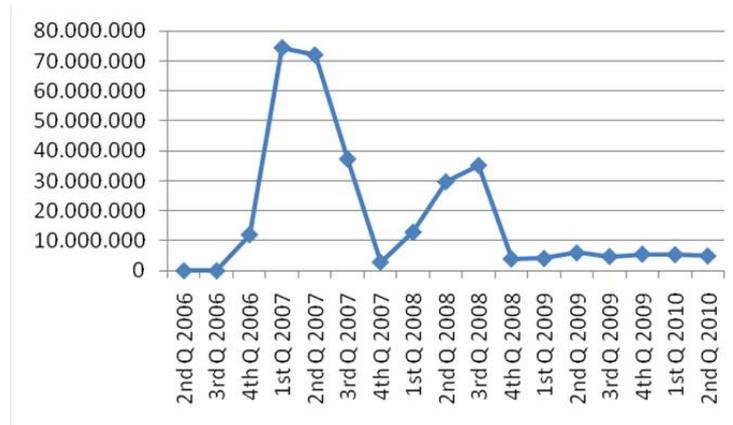
Chart 1: Land acres auctioned by Linden Lab (2006-2010)

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[57] Land auctions take place at http://usd.auctions.secondlife.com/ and are exclusively managed by Linden Lab.

[58] From the second quarter 2010 Linden Lab stopped publishing data concerning the land auctions.

[59] http://wiki.secondlife.com/wiki/Knowledge_Base.

[60] Complete announcement available at:
https://blogs.secondlife.com/community/features/blog/2007/07/26/wagering-in-second-life-new-policy.

As the acres auctioned decreased the land sales among residents increased (see Chart 2) – it increased from near 192 million square meters in the second quarter 2006 to 366 million square meters in the same period 2010. Land seems to be a stable market among residents and it may be a profitable business. But in spite of being lucrative for residents, it still is good for Linden Lab, because to be able to buy land residents must upgrade their accounts to paid ones – known as Premium accounts.
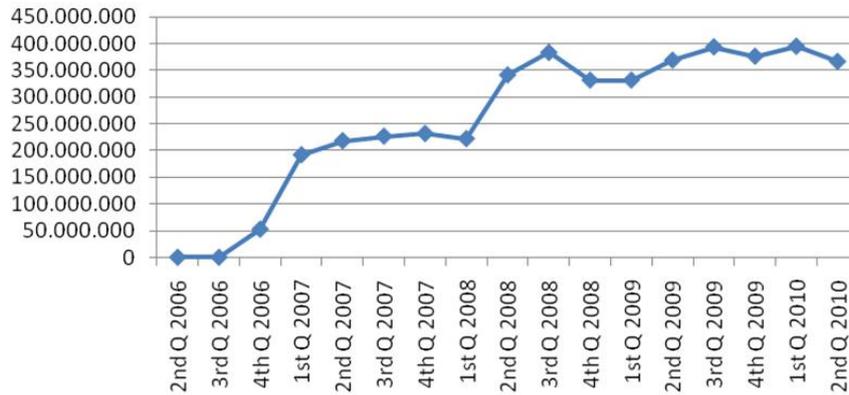
Chart 2: Land sales by residents (square meters)

The number of hours residents invest in *Second Life* also reflect its development level. In the second quarter 2006 users spent 10 million hours in-world. This number increased until the 2nd quarter 2009 and from the 3rd it decreased from 126 to 104 million hours in the 1st quarter 2011 (see Chart 3):
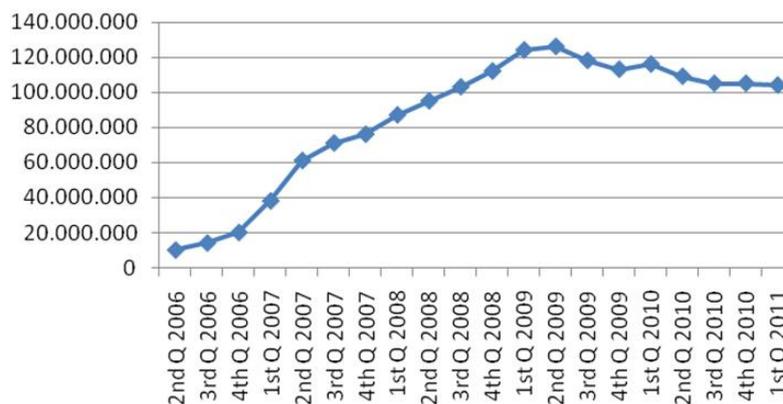
Chart 3: Hours spent in-world (2006-2011)

These data show that *Second Life* is still growing but in a much slower rhythm than it did between 2006 and 2007. I propose that there are two main influences for this slow down: 2008 financial crisis – that is still affecting world economy, and the growth of social

networking sites, particularly *Twitter* and *Facebook*, that have different characteristics but are easier to use – users do not have to learn to manage an avatar, and these networks connect users mainly with people they already know from face-to-face interaction.[61] Other evidence of *Second Life* ongoing development is the continuous updating of world's use conditions by Linden Lab. The launch of a new continent is an example of this growth. This new continent – Zindra, was created to enlarge geographic space but also to make available a new category of in-world contents – adult content.

After analyzing *Second Life* from territory's point of view, now attention will be paid to its population.

1.1.2 Population

Second Life is inhabited by avatars representing registered users. The first step to *netizenship*[62] in this virtual world is registration. The concept of *netizen* was proposed by the first time by Ronda and Michael Hauben, in the book *Netizens: On the History and Impact of Usenet and the Internet* (1997):

> Welcome to the 21st Century. You are a Netizen (a Net Citizen), and you exist as a citizen of the world thanks to the global connectivity that the Net makes possible. You consider everyone as your compatriot. You physically live in one country but you are in contact with much of the world via the global computer network. Virtually you live next door to every other single Netizen in the world. Geographical separation is replaced by existence in the same virtual space. (Hauben and Hauben: 1997: 3)

Register is done in platform's official webpage[63] and the first element one must define is avatars initial appearance. In *Second Life* avatars are humanoid and gendered – they even have size limits within a realistic scale, being the maximum height 2,44 meters. Avatars are at first all equal, which prevents 'role-playing racism' common to traditional massive multiplayer online games – for instance, people who choose to play with Orcs often refuse to socialize with Elves (Au, 2008; Taylor, 2006). In order to prevent these situations

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[61] Other difference is the fact that these social networking sites do not contribute so much for the connection between unknown people; while in *Second Life* people from all over the world get connected and interact for different reasons – just to socialize or to carry out common projects. In virtual worlds there is a deeper sense of ownership and habitation.

[62] The concept *netizenship* combines the substantives internet and citizenship representing the act of being a citizen in cyberspace.

[63] At https://join.secondlife.com/.

Linden Lab coded all avatars with the same 'DNA', all avatars share the same initial appearance; despite the fact that the bodies are fully customizable, players know that at the beginning of the virtual life all of them had a standard appearance. To facilitate body customization avatars' bodies are full of 'attachment points', meaning that besides allowing shape and size personalization, all body parts are possible to 'cover' with different components – for example, if the wanted look is a robot like avatar one must attach robot body pieces to the respective areas of avatar's body. There are available twelve types of avatars[64] (see Figures 15 and 16), six feminine and six masculine. This initial choice is not definitive and after logging in appearance is totally editable, and though all the available avatars look human after logging in this may be changed and players may choose to have a *furry*[65] or robot avatar. Gender is other element that may be changed afterwards because it is part of avatars appearance. Gender in *Second Life* is set in two ways. The initial avatar's gender (or in these case is more accurately, avatar's sex) remains inscribed in appearance settings forever, but only avatar owner has access to this information. Despite being inscribed in profile gender is not static. It is possible to transform an initially feminine avatar into a male one and vice-versa; and is even possible to have a hybrid appearance. The second way gender is set is through gender defining elements like female or male physical characteristics, and/or clothing and accessories.

Figure 15: Options of masculine appearance

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[64] The set of standard avatars' appearance are not always the same; Linden Lab updates the offer every now and then.
[65] *Furries* are anthropomorphized avatars that combine animal and human characteristic.

Figure 16: Options of feminine appearance

After choosing avatar's initial appearance is necessary to define its name. Until the beginning of 2011 according to the chosen first name a list of possible last names was presented. Last names were managed by Linden Lab in order to assure that each avatar has its own name in a specific graphic representation.[66] Due to the fact that residents considered this naming system to limited, now is possible to choose avatar's complete names, the only condition is that it must be unique. When registration process is complete the automatic account type is the Basic one, this is free and do not require a monthly fee, however has some restrictions like do not allowing land owning. Who has a Basic account may upgrade it to Premium. Premium accounts allow land owning, as well as receiving a weakly stipend of L$300, paid by Linden Lab. The monthly fee paid by Premium account users starts at $9.95 and goes up depending on users' terrain area.

After registration stage avatars can log into *Second Life*'s world and start exploring its territory. During the first 90 days everyone is considered a *newbie*. Newbies are all the newcomers, but also all that are not familiar with the interface despite their second life age. The other group of *Second Life*'s population is constituted by residents, designation Linden Lab uses to address players.

Second Life's population is constituted by avatars of around 31 million registered users.[67] In order to characterize its population the results of the largest and latest survey of *Second Life* population (Bell, Castronova, and Wagner, 2009) will be analyzed. Previous quantitative studies on *Second Life*'s population (Ortiz and Noble, 2007 [main results

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[66] For instance, if someone wanted to create an avatar called Katie in July 2009 the system did not allow because all the possible combinations were already in use. In these cases it was possible to find different graphic representations for the same sonorous representation like K8y.

[67] According to Kzero – http://www.kzero.co.uk/blog/slideshare-q1-2012-universe-chart/ (03/09/12).

available in Appendix A]; Social Research Foundation, 2008 [results available in Appendix B]) were not totally conducted in-world, the data was not collected within this virtual environment. As in the majority of quantitative research studies on virtual worlds, players needed to step outside gamespace and answer a web-based survey.[68] There are also several qualitative studies on *Second Life*; those will be analyzed in Parts II and III once they reflect upon players' identity and behavior, and not upon demographics.

The data collection method used in this study was the Virtual-Assisted Self Interviewing (VASI) and the instrument was the Virtual Data Collection Interface (VDCI). Both were developed in and to research *Second Life* (Bell, Castronova, and Wagner, 2008) and "this protocol created a virtual (occurring in the virtual space), assisted (because of the VDCI), self-interview, that anyone could take [one time]" (Bell, Castronova, and Wagner, 2009: 6). The survey was available in several *Second Life* locations through a kiosk where players had available all information needed about the survey. The survey language was English only and all respondents were paid L$250. The population of the research was *Second Life*'s population; and as was not possible to have access to a complete characterization of the population, sampling was a challenge. Three sampling methods were applied to collect different samples of population: e-mails lists, classified ad in *Second Life*'s classifieds employment section, and quasi-random survey protocol (random location protocol). All these sampling channels were susceptible to 'snowballing". The survey was available for 30 days in March 2009. The VDCI instrument allowed data to be collected 24 hours a day, and was not necessary to have a permanent researcher involvement. 2,127 avatars respond to survey, among them the number of valid answers was 2,094. The results of this survey will only be partly discussed, attention will be focused on the questions that allow setting a general characterization of *Second Life*'s population (in order to access the complete survey see Appendix C).

Land owning is one of the distinctive aspects of *Second Life*. In this virtual environment players with Premium Accounts can own land and build whatever they want within it. 32,6% of this survey respondents were land owners. Despite not being the majority is a significant part. When asked about their avatars gender the majority said to have a female avatar (52% females, 40% males, 3% transgender, other or no answer). These results were

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[68] Moving out the virtual world to answer a survey breaks the sense of immersion.

not coincident with those achieved when surveying *World of Warcraft*, for instance, where 65% of the players managed a male avatar (Yee, 2006a). Regarding first life gender, the majority of users said to be female (51,4% against 43% male), which was not the same trend verified in massive multiplayer online games' players,[69] and tend to develop only one avatar (52%). The majority of survey respondents were from United States of America (USA) (40%); among the others 9% were from UK, 7% from Germany, Canada 6%, France 5%, Netherlands 3%, Spain 3%, Brazil 2%, Italy 2%, and 22% from other countries. The results show that USA, UK, Germany and Canada have higher percentages of users; but the fact that the questionnaire was in English only may have contributed to these results.[70] The percentage of German respondents may be explained by the fact that despite not being located in German-inspired regions, one of the most visible elements of kiosks was the DIW-Berlin logo – a well-known institute in Germany that funded the research. The average of players' first life ages was 35 or younger (67%); first life income $20,000 or less per year (55%); and the majority of respondents said to have finished education at age of 35 or less.[71]

The three referred quantitative research studies on *Second Life*'s population combined with the data from the longitudinal project 'The Daedalus Project', helped to define some categories for the netnographic research conducted within this virtual world. During the time spent in-world it became evident that creating objects and developing inviting places, as well as socializing and doing business are the main activities of players. The majority of avatars met were humanoid figures and a balance in gender representations was noticed. Despite not being so common there were also human and non-human hybrid characters – avatars that show no gender differentiating characteristics, that look androgynous. Nevertheless, I propose that the majority of the avatars that populate this digital social space have defined gender roles and most of the times these are presented through gender

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[69] See for instance the demographic data about massive multiplayer online role-playing games collected and analyzed for The Daedalus Project, a research conducted by Nick Yee from 1999 to 2005 and made available at http://nickyee.com/daedalus/gateway_demographics.html.

[70] The results of the two previous studies also revealed a majority of players being from North America and Western Europe. However, these results do not illustrate Linden Lab's announcement regarding the heterogeneity of *Second Life* Players national origins (Au, 2008: 244), once the majority of survey respondents still comes from USA.

[71] "It is difficult in the international context of SL to capture the level of education of respondents. As a proxy, we asked respondents to give the age of their final year of education." (Bell, Castronova, and Wagner, 2009: 18).

stereotypes. During the observation was notorious that feminine avatars tend to exaggerate more their femininity than male ones their masculine attributes. The findings concerning gender representation will be further explored in the Part II.

Second Life is inhabited by a very active and creative community which members have different interests and goals. Metaverse's development is characterized by users' participation, like Linden Lab describes in *Second Life*'s welcome note:

> Welcome to the *Second Life* world. We are a global community working together to build a new online space for creativity, collaboration, commerce, and entertainment. We strive to bridge cultures and welcome diversity. We believe in free expression, compassion and tolerance as the foundation for community in this new world.[72]

In order to be possible to build this global virtual community rules are needed and *Second Life* has its own structure regulated by a set of social rules and principles. Linden Lab is responsible for the major part of these rules but most of them are not rigid, they have been evolving along with the platform, and players' opinions and suggestions are sometimes taken in consideration. In the next sub-chapter the social structure of this virtual world will be described and analyzed.

1.1.3. Social Structure

Second Life's social structure is composed by two essential social axes. On one hand there is Linden Lab, the company that owns the platform, and on the other hand there are players. In this sub-chapter will be analyzed how this virtual world is structured taking in account the two axes and how they interact and cooperate. It is important to understand Linden Lab's role in the governance of this alternative world, but also the importance of the main contributors to in-world development – the players.

Linden Lab is the creator and owner of *Second Life*. It is the maximum authority within this virtual environment. Nevertheless, following what was already witnessed in the development process of other virtual worlds – *Ultima Online* (1997), *The Sims Online* (2002) and *World of Warcraft* (2004), for instance, the government power is held not only

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[72] http://secondlife.com/community/.

by the owning company but also by players. These two entities represent different types of governmentality and power. Despite being a virtual world *Second Life* offers players space to interact, to explore and even to build. This contributes to a sense of ownership (or better, of co-ownership) by players:

> […] users colonize these spaces and contribute to give them direction: because these social worlds are not politically structured a priori, the users will organize them while aiming at institutionalizing the shapes of government, being able to reproduce political practices noted in real life in order to take care that these universes remain free. (Mauco, 2008: 8)

The history of virtual worlds has being marked by a fourth period process that shaped the coming of age of almost all virtual worlds available, and is visible also in *Second Life*. This process has always the same goal: to free virtual environments from the authority figure of the owning company. The will of freedom revealed by players resembles the emergence of the middle-class public sphere (Habermas, 1993 [1962]; Mauco, 2008). In order to set this comparison players must be understand

> […] as the sphere of private people [who] come together as a public […] [that] claimed the public sphere regulated from above against the public authorities themselves, to engage them in a debate over the general rules governing relations in the basically privatized but publicly relevant sphere of commodity exchange and social labor. (Habermas, 1993 [1962]: 27)

And second to understand the creators and/or owners as being the regulating authority. The four stage process that lead players to emancipation reflect the emergence of a middle-class public sphere within virtual worlds. Before analyzing the maturation of social structures within *Second Life*, is important to analyze some paradigmatic examples of virtual worlds' history, as *Ultima Online* (1997) and *The Sims Online* (2002). The four stages of the process are: disengagement of the game developers, chaos – no ruling figures and lack of social organization, management of violence among players, and self-organization. The different stages evolve from independence, to chaos, to re-organization.

In the history of virtual worlds the first manifestation of willing for independence was symbolized by the assassination of Lord British in *Ultima Online* (see Figure 17), during the beta testing of the game, on August 8th 1997. Lord British was the avatar of Richard Garriott, the game creator, and he scheduled a royal visit that was part of server's population stress test. Usually is very difficult to kill or hurt avatars managed by elements

of owning companies, they use to be protected against the majority of hacking procedures. Lord British was allegedly immortal, and to kill him the player (Rainz) needed to take advantage of a programming bug; he casted a spell called 'fired field' on Lord British and when other players noticed Lord British was dead.[73] This event set the tone for fighting for freedom in multiplayer game environments.

Figure 17: Assassination of Lord British in *Ultima Online*

The second period was marked by minimizing the role played by companies' and surveillance systems. In the beginning of the majority of virtual worlds, mostly in beta phases, creators tend to influence players to follow the path they imagined for their cybersocieties, forgetting that players tend to prefer to explore setting potentialities at their own rhythm. One emblematic case that shows the different perspectives owners and players have regarding virtual space was players' rebellion in *The Sims Online* against the Municipal Observation and Management Incorporated, the regulation office to supervise dedication. One of its goals was to make sure players were spending enough time online, and when long absentees were noticed players were sent messages remembering how important it was for them to be online (Mauco, 2008: 8). Players got revolted with the pressure and organized a protest against those practices, and succeeded. The result was the abolition of control institutions in the game space. But as players were not organized in communities yet, the result was a period of chaos: "chaos reigns, everybody is alone" (*ibid.*: 9).

The third period is marked by violence and chaos among players and by the subsequent waves of manifestation against those practices. Players ask owning companies to control other players' misconduct; and organized demonstrations are usually the way for showing

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[73] There is an interview with Rainz, where the player explains what happened – "The most famous death in MMO history", available at
http://inporylem.com/forum/archive/index.php/t-330.html?s=3332391d9e920647e615655dfbe3517b.

their discontent. One of the first player-organized demonstrations occurred within *Ultima Online* in 2000.[74] In order to denounce the activities of 'player killers'[75] a demonstration took place in Lord British's castle. Players fought against the reputation system and through the demonstration they were heard and the system was removed. This happened not only to pacify the virtual world, but mainly to prevent new players abandoning *Ultima Online*; if there were no more newcomers the world would stagnate.

In all virtual worlds there is a category of players that take advantage of the rules and codes developed by game creators – the griefers. Griefers are those players whose main goal while in-world is to disturb other players and game creators. There are several forms of griefing with different results. Some griefers just want to disturb the game play, others intend something more and may break the programming code to take advantage of other players and rob them, or even kill them, for instance. Griefing activities are usually related with organized crime. Demonstrations against griefing practices are common (Bainbridge, 2010b; Balkin, 2006; Boellstorff, 2008; Pearce, 2009; Taylor, 2006), and tend to result in adjustments regarding codes of conduct and access to virtual environments.

The pacification of virtual worlds usually occurs in the fourth stage through players' self-organization. Players still ask for help, but as they are already organized is easier to control what happens in the regions or cities they 'inhabit'. One of the paradigmatic examples of players' self-organization was the emergence of private political initiatives to set up a city council in one of the most populated cities of *The Sims Online* – Alphaville, during April 2004 (Glassman, 2004; Jenkins, 2004). According to Mauco (2008) this election turned visible what players considered vital for their virtual existence. On one hand they want to surpass the authority figure of the owning company and to be able to control and adapt the 'living conditions' of this immaterial space accordingly to their needs; and on the other hand they seek to set up a leveling system adjusted to their reality as 'netizens' of these virtual environments, and not having to get adapted to a system defined by game creators. When players achieve this kind of control over their 'second lives' "these universes finally 'pacified' are presented as open spaces, subjected to goals of play or of sociability, the

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[74] For more information on this event see http://www.raphkoster.com/gaming/postmortem.shtml.
[75] 'Player killers' was an organized form of up scaling the game reputation system. Players took advantage of the fact that the rating system valorized the number of murders the player committed. This was seen as an easy way to have high-reputation avatars in short time, and players start to kill newbies because they were easier targets.

minimal rules are the in-game ones and the code of good behavior" (Mauco, 2008: 11). By the end of fourth stage players and owning company co-manage the interaction in virtual worlds. This cooperation functions differently from game to game, and is highly influenced by the rules of using and accessing the environments – usually designated by End-User Licensing Agreement (EULA) or Terms of Service (ToS).

As stated before, I consider that *Second Life* development follows the four-stage process characteristic to virtual worlds' development. The period of time during which the process occurs varies according to game intrinsic rules. In some cases the major part of the process takes place during the beta phase; on others it is more time-consuming. The maturation of a virtual world usually occurs during the first two to four years of its 'commercial life'. At that moment, virtual worlds have cooperative regimes where social structures are controlled and adapted by owning companies and players. I would like to suggest that in the *Second Life*'s case this occurred between 2005 and 2006. From that time on social structures became controlled by Linden Lab, sometimes following players' suggestions, but players have also assumed a ruling role as land proprietors – players are responsible for everything that happens within their virtual territories. If they have rent parcels they are responsible for checking if all tenants follow the rules.

In *Second Life* in-world's social rules are influenced by Linden Lab "Community Standards"[76] and "Terms of Service".[77] Through the definition of these basic rules Linden Lab presents itself not only as the owner of the metaverse but also as the responsible entity for it. "Community Standards" describe the basic rules for having an appropriate behavior – "the big six". The infringement of these rules may result in suspension or permanent expulsion if the transgression is considered very serious. This set of rules is valid throughout the metaverse, as well as in all existing additional platforms: websites, blog, wiki and forums. The six behavior rules that define *Second Life*'s social structure are related with intolerance, harassment, assault, disclosure, adult regions, groups' listings, and disturbing the peace. One of *Second Life*'s goals is to combat intolerance, so any act that result in marginalization, belittle or defame individuals or groups is seen as inhibitor of ideas exchange and networks formation within the community. Moreover there are also not

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[76] Available at http://secondlife.com/corporate/cs.php (last visited on 05/01/11).
[77] Available at http://secondlife.com/corporate/tos.php (last visited on 05/01/11).

allowed observations regarding other residents' race, ethnicity, gender, religion or sexual orientation. Due to the several possibilities offered by this virtual environment harassment may occur in different forms. One is considered a harassment victim if he feels intimidated or threaten (physically or verbally) by other avatars. Despite the majority of places in *Second Life* being considered safe, assaults also occur in-world, for instance when there is a shooting, pushing or shoving against avatars. By disclosure Linden Lab meant that it is mandatory to respect other avatars privacy regarding both first and second lives. Is also forbidden to record, post or share conversations had with other residents. The classification of adult regions and groups is obligatory; with Zindra's creation all the contents considered for adults will be available in the same geographic zone; but it is also possible to have private regions listed as adult content under Linden Lab permission. The last behavior rule is peace respect – all the behaviors that may inhibit other residents to enjoy *Second Life* are considered as disrespectful and should be punished. In order to control if residents follow these rules all avatars have the right and duty to inform Linden Lab always they witness a situation that goes against these principles. The reporting abuse tool is available in interface tool bar, in the help menu.[78]

"Terms of Service" on the other hand define the conditions to access Linden Lab's services, i.e. to access *Second Life*. This set of conditions may change whenever Linden Lab wishes,[79] but residents must be warned about any alterations that occur. Some central aspects of these ToS are intellectual property right – all the avatars have authorial rights regarding what they create and other residents must respect that right; the participation in metaverse's development does not mean that they will be rewarded by Linden Lab, and Linden Dollars regulation – the in-world monetary unity totally regulated by Linden Lab.

Besides these basic access and behavior conditions, *Second Life* has a complex social system, where both players and Linden Lab rule. The head of that system is Governor Linden, the entity that has regulation power. A figure created to represent Linden Lab's authority in-world, and that does not have an individual first life counterpart. This

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[78] This functionality was tested in Help Island when someone started dropping wood boxes to the ground and air really quick. The intention seemed to be to create lag leading avatars to teleport to other locations. The abuse was reported by several residents and 10 minutes later the player causing the disturbance was temporary expelled.
[79] These conditions have already been modified since platform's launch; however until now the majority of alterations were proposed by residents, as it will be seen later.

character was born on 1st September 2002 and is considered as a non-player character, once it is managed by Linden Lab staff. Governor Linden is usually represented through a female avatar (see Figures 18 and 19).[80]

Figures 18 and 19: Governor Linden

In addition to Governor Linden that is responsible for all mainland territory, there are other power figures within this virtual world – the owners of private regions. Private region's owners are responsible for setting the rules that must be followed in their territories, which must respect platform's terms of service. Among the aspects one must define before making available new locations in *Second Life* are: access – open or conditioned, type of contents allowed (PG, mature or adult), and appropriate behavior while in this region – do not push other avatars, fly or being nude, as well as the space possibilities – voice enabled and *rezzing*,[81] for instance.

The possibility offered to players to be co-developers of this virtual world is one of *Second Life*'s distinctive characteristics. Due to this uniqueness the developing process of this virtual world was also unique, and the four stages of this process were marked by a series

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[80] Governor Linden is not easy to find, despite spending several hours per day online. Only one Linden was encountered during the time spent in *Second Life*, it was not Governor Linden.
[81] To 'rez' means to make an object appear in-world, for instance, some objects are 'compressed' in a box and in order to open them players must *rez* them, this is like putting the box in the floor and then to open it. This possibility is not offered in all places because it is common to players to leave the *rezzed* object in the 'decompression' location. These lost objects are considered pollution – they not only interfere with space harmony but also count to region *prims*' capacity, and if all players leave *rezzed* objects behind it would be a problem to regions' memory capacity.

of events that despite seeming different from the ones described earlier, contributed in a similar way to *Second Life* maturation. To promote the growth of private regions was important to stimulate the investment in virtual land and to achieve this goal Linden Lab needed to improve their product and make it more attractive and inviting to investment. To accomplish this purpose was offered all residents the possibility of participating in the development of this alternative world. *Second Life*'s slogan became "your world, your imagination". This decision had a second implicit objective – to catch other virtual worlds' users' attention by offering them the possibility of creating their own micro worlds. The first stage of *Second* Life development process derives from this possibility, and took place from April to June 2003 in a continental region called Outlands (see Figure 20) – 'Jessie Wall War' (Au, 2008: 103-117; Ludlow and Wallace, 2007: 97-99).[82]

Figure 20: Warning sign at Outlands arrival spot

The Outlands was a free-speech fire zone where all types of behavior were accepted, even violent ones. In the beginning 2003 Outlands was a destination chosen by many players to build their homes and businesses because Linden Lab encouraged them to settle there. By that time Outlands was a "thriving suburbia" (Au, 2008: 108). In April 2003 a group of World War II online players (WWIIOLers) migrated to *Second Life* aiming to explore the building possibilities offered in Outlands. They wanted to create a World War II scenario and build their own weapons. *Second Life* was used by these players to set a kind of "online central command from where they could plan combat strategies for their main game" (*ibid.*: 106). This group of residents brought a new element to this virtual world: combat. Few weeks later a second wave of WWIIOLers arrived; these were more aggressive and not willing to integrate the local community. Their goal was to conquer

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[82] See also http://nwn.blogs.com/nwn/2003/07/war_of_the_jess.html and http://alphavilleherald.com/2004/08/dont_call_me_a_.html (20/09/2010).

Outlands' territory and to expel original inhabitants. Anarchy was rapidly installed having as main resources force and weapons. At first everything that was happening was accepted by Linden Lab, players were not breaking the rules – Outlands had no restrictions regarding violence; and this was an opportunity to present *Second Life* as a destination for players of other worlds. But Outlands' 'natives' were not satisfied and when WWIIOLers start to kill them in their own territories it became worst; players were killed in their own lands and the main problem was the fact that their reincarnation place was the same where they were getting killed, and they saw themselves in an endless circle of being killed, reincarnate and being killed again. Facing this war strategy they decided to fight back and a group of armed players confronted the WWIIOLers. The confrontation last several hours and affected a large number of players, some of which were not directly involved in the conflict and were not happy with the situation. Linden Lab only intervened when the number of reports increased; the solution found was to divide Outlands and only Jessie region remained classified as free zone, the rest became 'no-kill areas'. But within Jessie war continued; by then the majority of residents from this area moved to no-kill zones, except a cyberpunk-themed group called Noise Tanks. They kept fighting against WWIIOLers and as time went by the war became more sophisticated with players investing time and money to develop ever more powerful weapons (see Figures 21 and 22).

Figures 21 and 22: Jessie Wall War

But being restricted by a wall limited area and having the same opponent everyday became boring and the WWIIOLers decided to go beyond the wall. Meanwhile the wall was transformed in a space of political imagery fight; people from each side started to use the wall to publicize political messages against Iraq invasion, most of them targeting President George W. Bush (*ibid.*: 111-112). The conflict ended when WWIIOLers attacked a player and put the Conferate flag in his territory. This was considered a racist behavior violating

Linden Lab's 'Community Standards' – hate speech. Linden Lab stepped in, cleaned up the wall and defined that no one should attach anything to the wall except Linden staff. And so the war was over.

Jessie Wall War was a milestone in *Second Life* development and took place just few months before world's official launch: "the pacifist arcadia of the early *Second Life* natives was interrupted by gun-toting frontiersmen, causing an epic clash over what kind of world SL was supposed to be" (*ibid*.: 115). The 'war' was interpreted as a sign that world's initial organization in continental areas should not be the best option; instead of keeping the original plan, Linden Lab defined that the world's geography would be characterized by two different elements – continents and islands, being islands private property where residents may define the appropriate behavior to have. This was the way Linden Lab found to keep their virtual world inviting to players with different goals, and was an important decision to the organization of thematic communities in *Second Life*. Jessie Wall War was crucial to world's development; it was a manifestation of players' expectations. This was the first stage of the maturation process of *Second Life*; in this case Governor Linden was not murdered, as happened in *Ultima Online*, but residents revealed that it was not enough for them to follow what Linden Lab had determined, they had their own goals and to be able to fulfill them was the key condition to remain in *Second Life*. This event marked the establishment of a new era, an era characterized by the beginning of disengagement between Linden Lab and players; Linden Lab was not the only authority figure anymore, players had something to add regarding in-world's life.

The second period was marked by the first residents' rebellion during the summer of 2003; the first in-world revolt was a high point in the fight for metaverse's civil rights. In the beginning of *Second Life*'s commercial era residents paid taxes for the server's space their properties occupied – the more complex and interactive the region was, more expensive became to guarantee its perfect performance. These taxes were additional to the payment for a Premium account and was its calculation method that caused residents uprising. Americana, a group headed by George Busch, owned one of the most developed regions by that time. The difficulty in paying the taxes relative to their highly developed region – Americana, led them to the rebellion against Linden Lab's taxation system (Au, 2008: 122-129; Grimmelmann, 2009). Americana's project consisted in the development of a theme

park that represented United States in a microcosm and where it would be possible to visit American symbols like statue of Liberty, Mississippi River, Independence Hall or Empire State Building. In fact, it was this last building that due to its magnitude made taxes unaffordable. Facing this problem Americana's owners decided to protest against Linden Lab, and as soon as they were able to grasp other residents' attention their protest became global (see Figures 23 and 24).

Figures 23 and 24: Tax Revolt in Americana

Residents claimed that Linden Lab was not honoring what was promised, and that the taxation system was making *Second Life* a repressive environment instead of a space for creativity and freedom. Linden Lab managed to control the situation but they were afraid of desertification and after analyzing what happened they concluded that it would be very important if residents feel that they are part of metaverse's development and not just investors. They thought that it would be important if residents could benefit from their investment, and in order to accomplish this goal some of the initial rules had to be rewritten. The new rules were groundbreaking and contributed to make *Second Life* different from other virtual worlds. From this moment was possible to buy land and to pay maintenance fees that were related to terrain area instead of its contents; it became possible to buy Linden Dollars, and exchange them for real currencies; and the right to intellectual property over everything created in-world was settled. These adjustments were vital for metaverse's growth and for its social development. Residents felt more part of this new virtual environment increasing their investment in a space that had become economically more attractive as well as more complex. This second event showed resident's opinion regarding Linden Lab space growth control; players that invested time and money in Linden Lab's virtual world make clear that a change in rules was needed and players' creativity should not be restricted.

During the following years, from 2004 to 2006, *Second Life* had continued to grow and to conquer more and more residents all around the world. But, as happens in first life, sometimes there are incidents that make social structures fragile, and in 2006 the second in-world revolt toke place marking the third period of the development of this virtual world. Linden Lab carefully managed this second uprising because it might have disastrous results for *Second Life*'s economy. This second event was provoked by a new software that help to clone all type of objects and scripts within *Second Life* – Copybot (Au, 2008:132-136; Ludlow and Wallace, 2007: 206-263). Because of its purpose this software questioned the right to intellectual property and residents expected Linden Lab to rapidly react against it. But Linden Lab took some time to react and residents got together to manifest themselves against Copybot. This rebellion had had more serious consequences than the first. Several residents had closed their shops and abandoned their lands in protest against the incapability of Linden Lab to preserve residents' rights (see Figures 25 and 26).

Figures 25 and 26: Popular rebellion against Copybot

In November 2006 Linden Lab had announced through a press release that considers Copybot illegal and that its use transgresses their Terms of Service: intellectual property, and the new paragraph on the use of software that violates *Second Life*'s rules. The disobedience to this new condition could result in permanent exile from the metaverse. Copybot episode was very important to strengthen in-world's social structure and was the first time that residents demand their rights to be protected – Linden Lab was considered for the first time the governor of this alternative space by a meaningful number of residents, as well as the only intervenient that could stop the griefing acts players were fighting against. The pacification of the virtual world was possible after the rules adjustments; from that moment *Second Life*'s use conditions got closer to 'A Declaration

of the Rights of Avatars', proposed by Raph Koster, that has as central point (Koster, 2006: 57):

> That avatars are the manifestation of actual people in an online medium, and that their utterances, actions, thoughts, and emotions should be considered to be as valid as the utterances, actions, thoughts, and emotions of people in any other forum, venue, location, or space. That the well-established rights of man approved by the National Assembly of France on August 26th of 1789 do therefore apply to avatars in full measure saving only the aspects of said rights that do not pertain in a virtual space or which must be abrogated in order to ensure the continued existence of the space in question. That by the act of affirming membership in the community within the virtual space, the avatars form a social contract with the community, forming a populace which may and must self affirm and self-impose rights and concomitant restrictions upon their behavior. That the nature of virtual spaces is such that there must, by physical law, always be a higher power or administrator who maintains the space and has complete power over all participants, but who is undeniably part of the community formed within the space and who must therefore take action in accord with that which benefits the space as well as the participants, and who therefore also has the rights of avatars and may have other rights as well.

I would like to argue that the described events led to players' organization and a cooperative self-government; cooperative because players always need to articulate their wishes with platform use conditions. The growth of *Second Life* territory allowed the emergence of private spaces, in which the land owners were invited to set up their own rules. This freedom is seen by some players as the opportunity for self-government; Linden Lab recognized their right to manage not only their territories but also their own groups. Due to this opportunity the majority of the places visited in *Second Life* was owned by a group of residents. Group members assumed altogether the duties and rights regarding land ownership. By the end of 2006 *Second Life* was a stable virtual world, and as players invested more and more time and money its growth was evident. Private regions became very important as players started to invest in land; land is then one of the elements that reflect the relationship establish with *Second Life*. In the following chapter the analysis of *Second Life*'s geography drew so far will be complemented with results from the netnographic research. The goal is to understand which narratives players are developing for themselves while inhabiting this virtual territory.

II. Exploring the Virtual World

> You see, Trinity, we humans have a place in the future. But it's not here.
> It's in the Matrix.[83]
>
> (Wachowski and Wachowski, 1999)

Second Life is one of the most complex virtual worlds available (Boellstorff, 2008; Johnson, 2010). One of *Second Life*'s main components is *prodused* content: within the game space players are active contributors to in-world development, and only 1% of the contents available were created by Linden Lab (Ondrejka, 2006: 163). Among contents developed by players are most of *Second Life* locations. In the past three years I visited a considerable number of these destinations– 64 during the netnographic research, but more in a not so organized way during the auto-netnographic stage – the stage when the virtual environment was explored without having one *a priori* list of where to go. In this second chapter these 64 locations will be described in order to set the tone of the field research. After this description the visited destinations will be analyzed to verify how residents relate with territory, and which cultural narratives rise from that relationship: space-generated narratives, cartography and population stratification according to the role taken in territory development.

2.1. A Tour through *Second Life*

The in-world netnographic visit had as destination 64 different locations, organized in ten thematic categories. These categories were set following *Second Life: the official guide* proposal (Rymaszewski *et al.*, 2008 [2007]): 'newbie friendly', 'interesting destinations', 'community places', 'role-play', 'wonders of *Second Life*', 'spaces for learning', 'artificial life', 'spiritual places', 'dating and romance', and 'shopping'. In this chapter these locations will be described, aiming at contextualizing the subsequent analysis. This description is one of the first results of the fieldwork.

The first group, 'newbie friendly' counts with some of the ideal places for starting explore the virtual world: Orientation Island, Help Island, Kuula New Citizens Incorporated, The

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[83] Cypher talking with Trinity; she says: "The Matrix isn't real!" and he add: "Oh, I disagree, Trinity. I disagree. I think the Matrix is more real than this world. I mean, all I do is pull a plug here. But there, you watch a man die".

Shelter, Yadni's Junkyard, The Free Dove, and Ivory Tower Library of Primitives. Orientation and Help Islands (see Figures 27 and 28) are tutorial islands managed by Linden Lab to help players to feel at home within *Second Life*; there one can learn the basics of in-world's life.

Figure 27: Orientation Island

Figure 28: Help Island

Besides these islands there are available also destinations managed by groups of residents designed to welcome newcomers, and to help them in the initial stage of their second lives. Kuula New Citizens Incorporated (see Figure 29) is organized around NCI Plaza, an outdoor area for classes and events; there is also an information room regarding in-world life, a freebie store and Ginny Gremlin Park, a beautiful garden built in memory of Ginny Gremlin, a resident who passed away in 2006. New Citizens Incorporated is one of the most active newcomers helping communities; they organize meetings and workshops to initiate newbies in richer second lives. The Shelter (see Figure 30) has a different welcoming style. There is not so much information available and the managing group does not organize thematic workshops, but offers an ideal location to meet other avatars. There players can choose among different activities: dance, play games, relax in the rooftop garden or in the terrace (where is a pool with a diving board and a waterslide and of course a sunbathing area), watch a movie or listen to a live music show, or take a balloon tour and have a panoramic view of the region.

Figure 29: Kuula New Citizens Inc.

Figure 30: The Shelter

Yadni's Junkyard (see Figure 31) is another newbie friendly place, and is considered by its owner – *Second Life* famous YadNi Monde,[84] as a "newbie paradise". This was the first freebie organized store in *Second Life*, it was created in 2004. The products are organized by year of creation – from 2004 to 2007, and each year has its own store stage. Besides the Freebie Store there are available test and learning areas, the last offer visitors some information about the virtual world. The Free Dove (see Figure 32) is also a freebie store. This one specialized in clothes and accessories for avatars, while in YadNi's Junkyard one finds almost anything, from more common objects, to gestures and interaction or avatar's animations scripts. Some products were bought in The Free Dove to see how they looked. Despite being freebies they looked good, what can be a marketing strategy once near the freebie shop there is a 'regular' one (with paid products) from the same designer.

Figure 31: YadNi's Junkyard   **Figure 32: The Free Dove**

The last destination from this first category was Ivory Tower Library of Primitives (see Figure 33), a tutorial area focused on building. Here is available all information needed to understand how to build different objects in *Second Life*, as well as some tips to more advanced building activities. This is a very popular location and with some time investment players can really learn how building tools work, all the explanations are simple and clear.

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[84] YadNi Monde is one of the most active *Second Life* players. Throughout the years he built some of the most fantastic locations available in-world. In order to see some results of his work one can go to his *MySpace* profile and check the photo album called '*Second Life* Buildings' (available at http://www.myspace.com/yadnimonde/photos/12971888).

Figure 33: Ivory Tower Library of Primitives

The second group, 'interesting destinations', was constituted by examples of places that represent players' commitment to transform the virtual 'wild west' in an inviting atmosphere, as S. S. Galaxy, The Wastelands, Tableau, Kowloon, Steelhead Capital City Commons, Bedrock, Mont St. Michel ao Peril de la Mer, Sistine Chapel, Midnight City, and Nexus Prime. SS Galaxy Queen of the Sagittarian Sea is a luxurious cruise, where is possible to rent rooms and enjoy similar services offered by first life cruises (see Figure 34). Not all spaces are open to visitors, in order to have access to the majority of them is required to be a passenger, as one of the premises of this research was not to invest money in this virtual world during the research time, this touristic service could not be experimented.

Figure 34: SS Galaxy   **Figure 35: The Wastelands**

The Wastelands (see Figure 35) is a completely different space – an arid futuristic setting. Here is settled the oldest and largest residential Post-Apocalyptic community in *Second Life*; there are different private plots where members of the community built their houses, but also open-air areas decorated with what remained from previous times:

> Here, you won't find clean and stylish homes, pristine and luxurious beaches, noisy dance clubs, tawdry sex palaces, or any of the glitz and glamour more common to *Second Life*. But in our parched deserts, rocky expanses, and rank swamps, you'll find beautifully ruined buildings, precarious shacks, and mysterious assemblages of abandoned material, most of it created by the people who live here. From hidden underground bunkers to teetering swamp huts on stilts, from burnt-out vehicles to nomad's tents, from helicopter concert stages to trap-ridden combat pits to ball courts

to trade posts to working drive-in movie theaters, The Wastelands is filled with creative, detailed constructions.[85]

The Wastelands have a lot to explore and discover. Also in a desert scenery is Tableau, a shopping town (see Figure 36). The space is relaxing and the shops offer a wide variety of products, most of them very uncommon – as for instance, vintage moustaches for women, but high quality. There are also outdoor shops and some social locations where is possible to sit, drink something, and talk with friends (or with people just met). Despite the dryness of the surroundings it is worth visiting. Kowloon, on the other hand, recreates a first life location (see Figure 37). It is an urban commercial space where the anarchic and marginal neighborhood that existed in Hong Kong until 1993 was recreated. First life Kowloon was destroyed by mutual agreement between China and United Kingdom. In *Second Life* it is a bilingual space – simplified Chinese and English, organized in labyrinthine streets where is possible to find private residential areas, coffee shops, doctor's offices, a sandbox, and Panda Park. Panda Park represents the first life reconstruction of Kowloon, where a park arose after the destruction of the old neighborhood. Meandering through Kowloon dark and narrow streets is an almost claustrophobic experience; the town is constituted around alleys, narrow stairs and corners; the fluorescent lightning from the stores' ads also contribute to involving visitors in a peculiar atmosphere.

Figure 36: Tableau   **Figure 37: Kowloon**

Steelhead Capital City Commons is also a recreation of a first life space, of an industrial American Victorian coastal city (see Figure 38). Visiting this location was like travelling back in time and arriving in the beginning of industrial era. The city is organized in two areas – commercial and residential. In the first are available shops, mainly selling clothes and accessories, the Hotel and City Hall; in the second private habitations. The architecture of the city sets the historical tone. The land manager group is mainly compound by

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[85] The Wastelands' presentation, available in community's site – http://the-wastelands.org/.

residents of that time – meaning that they dress as they were in the nineteenth century America. Bedrock, the next destination, also recreates a recognizable setting, but in this case a fictional one – Flintstones' Stone Age city (see Figure 39). This is a very rich space where there is also a residential area, and some public infrastructures, like the prison and fire department, several shops, different leisure spots as an open-air dancing floor, a dinosaur-power Ferris wheel, mini-golf (paid), cinema, bowling (paid), mud spa, a lake prepared for fishing competitions, and of course a quarry. This is a very pleasant location; visitors can easily spend lot of time here. The other reason it is so requested is because Bedrock is involved in a myth – the hidden places of Bedrock, underground spots where allegedly romantic secret encounters take place. After looking for it, it was not possible to find any door to any secret passage, but some residents talk about a secret maze and other hideouts.[86]

Figure 38: Steelhead Capital City Commons   Figure 39: Bedrock

Mont St. Michel ao Peril de la Mer and Sistine Chapel recreate with detail two first life locations (see Figures 40 and 41), the first the French Normandy's coast city, and the second the best-known chapel in the Apostolic Palace in Vatican City. The Sistine Chapel is part of Vassar region, the home of Vassar's College virtual campus. The chapel's reproduction is amazing, it has a lot of details and besides the representation of the first life monument it offers historical information. It is common to meet groups of students having art history classes here; as happened during the participant observation stage.

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[86] See for instance, the blog The Torch: SL Guide – 'Bedrock Rocks!' retrieved June 2011, http://izziesl.wordpress.com/2011/05/21/bedrock-rocks/.

Figure 40: Mont St. Michel ao Peril de la Mer　　　　**Figure 41: Sistine Chapel – Detail**

Mont St. Michel, on the other hand, offers an accurate geographic and architectonic representation, but the majority of the buildings are empty, so it turned to be a not so interactive destination. Here one finds a nice outdoor space where is possible to meander through alleys and walls; and some in-door spaces as stores, relaxing areas, and a church. The interest of this space is not exactly what it contents (meaning services), but its architecture that transports visitors to Mont Saint Michel's narrow streets. The attempt to visit Midnight City was not so well succeeded. This destination is one of the most famous building areas within *Second Life*, but entrance in this area is not open to all avatars. Access is reserved for group members or guests. Midnight City is one of the most famous virtual contents creator companies developed in-world. The setting is famous for being amazingly built; it is used as a showcase for company's work. The next destination was Nexus Prime: Cyberpunk city of the future, a futuristic city under cyberpunk inspiration (see Figure 42). Despite being an interesting spot, it was not a very active city, and the emptiness made it feel a really cold place with high buildings and fluorescent lights. The residential area is significant, what may indicate that Nexus Prime citizens enjoy living here.
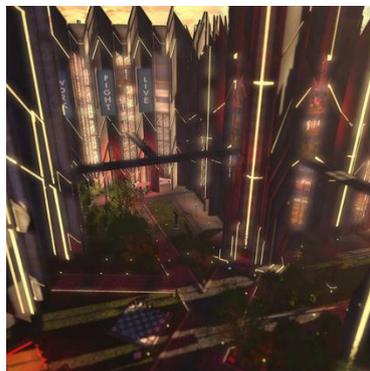
Figure 42: Nexus Prime

The third group was organized around 'community places' – places managed by *Second Life* thematic communities, as fantasy creatures, Gay, Lesbian, Bisexual, and Transgender (GLBT), Furry, International, and Religious. Islands from all these communities were visited. The first was Limbo Isle of Wyrms, the headquarters of a fantastic forest creatures community, mainly dragon-inspired ones (see Figure 43); then Longwood Gay Community & Shopping, a commercial area organized around Longwood GLBT community. This destination is representative of what will be later defined as *Second Life*'s fluid geography; this was a vibrant commercial spot during the first stage of this research, the traffic of residents was high and during the time spent there the flow of visitors was constant. Nevertheless this is an example of how fluid geography can be in this virtual environment, and this location was no longer available in the second stage of the fieldwork. It no longer existed; it had just disappeared.

Figure 43: Limbo Isle of Wyrms

Luskwood was the following community space to be visited (see Figure 44). Luskwood[87] is the oldest furry community in *Second Life*, founded in 2003. Their land offers an open-air social area, where everybody is welcome and can use the available facilities: bar, furry outfits' shop, games area, park, amphitheater, and a panoramic balcony on the top of a tree that allow us to overview all the furry territory. All buildings follow the same theme and are made of natural elements, being the most common wood. The main area was constructed in a giant tree where different social spaces function in the multiple floor tree house. It is worth to spend some time here; the members of the community are welcoming and the setting seems part of traditional children's dreams. Luskwood was an easy choice, because it is a very famous destination in *Second Life*, but choosing an example of an international community was not so easy. By the time this trip was getting organized there were several active international communities in this virtual world. Besides being a

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[87] For more information see the community's website – http://luskwood.org/.

popular destination the other choice criteria was to be an non-English speaking location, as the majority of *Second Life* players came from English-speaking countries, choosing a non-English location was the opportunity to witness how other communities function. The choice was not a Portuguese destination because the majority of them were already analyzed in another research (Ferreira, 2012). A Danish community was chosen – Wonderful Denmark, a cozy Danish coastal town (see Figure 45). It is an urban area, typical from northern Europe, with not very tall wood buildings – the majority has two floors, the tallest building of city is the Freebies Factory. There are available different types of public transportation allowing visitors to choose which will be used to explore the space – bicycle, bus, or tram. All of them were tested; the best for city discovery was the bicycle because it allows going everywhere. Besides the more urban town center, there is another area, a quiet and peaceful coastal zone where visitors can relax, hear waves and seagulls. This national space is also used by first life entities to promote Denmark's tourism and business.

| **Figure 44: Luskwood** | **Figure 45: Wonderful Denmark** |

And last but not least, Epiphany Island, the island of Anglican Community in *Second Life*. This is also a very harmonious and relaxing location, built within a natural environment (see Figure 46). There is an Anglican Cathedral and Chapel where worship services are held daily,[88] a library, the Parish priest's house, a Biblical Studies room where meetings are held on Sunday morning, a conference room, coffee shop, and a wine cellar, and on the other end of the island the meditation garden, labyrinth, dock, and grotto. The island is organized in two different areas; nearby the Cathedral a service-centered one, and the peripheral zone that invites meditation and atmosphere contemplation. Regardless of being

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[88] For more information about religious activities visit the community's blog 'The Anglican Cathedral of *Second Life*', available at https://slangcath.wordpress.com/.

an Anglican location, members of all Religions will feel comfortable here, especially in garden area.

Figure 46: Epiphany Island

The fourth group, 'role-play spaces' was constituted by sites where avatars can 'play' with each other. Places where players agree to follow the rules for interaction set by 'game masters' – games within the game. Among the suggestions presented by the official guide and Linden Lab's list of Hot Spots the chosen locations represented different themes, like The World of Hogwarts, Suffugium, DarkLife, The Forest of Kahruvel, The Pot Healer Adventure – Numbakulla Island Project, Hollywood Bowl, and Avilion Mist. The World of Hogwarts[89] is a setting inspired by Harry Potter's narrative where players can be part of a role-play game (see Figure 47). Participating in the game is not mandatory to being able to visit the space. For this research was decided not to take part of the game because it would be very time-consuming. However, it became evident that game participants have access to all the buildings and rooms; while visitors have just access to the designated public area – streets, shops and the coffee shop. The coffee shop was the spot where most time was spent – the coffee was free and several non-players come there to have coffee and meet people. Suffugium offers visitants another type of scenario, a cyberpunk one (see Figure 48). The role-play possibility within this location is different from the previous, here the proprietor does not organize role-play games, but his space is available to be used in that way. In order to enter this dystopic futuristic city identities are verified through a 'Palm Scan', and after that recognition visitors receive a note card with the following information:

> We at Suffugium Technologies have made every effort to ensure that your stay with us is a pleasant one. You will undoubtedly notice the AI-Controlled Security Drones on patrol throughout the city; they have been programmed to perform routine biological scans upon citizens and sub-citizens alike in an effort to keep our city

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[89] For more information about this role-play game – http://www.worldofhogwarts.org.

safe. Please submit to their scans; it will only take a moment, is not known to cause any injury, and ensures your future security within our jurisdiction. Do not interfere with the activities of the Security Drones under any circumstances.

This is a highly controlled city; it embodies a panoptical surveillance structure, and if the setting is used for a role-play game players can take advantage of all its security and surveillance elements. While exploring the space different patrols were met, they took some time analyzing visitors – perhaps checking if they had permission to be there. If someone witnesses any crime that should be reported to these non-playing characters – they have a report system integrated.

Figure 47: The World of Hogwarts   **Figure 48: Suffugium**

From Suffugium the journey continued to DarkLife, the first fantasy massive multiplayer game within *Second Life*, founded in 2003 (see Figure 49). The goal of this game is to kill monsters: "Players team up, bash monsters, gather gold, treasure and XP and develop their characters".[90] The game space is a natural landscape, and the setting is highly interactive. In order to access the game area participants should use the equipment they were given in the arrival area. The game follows a traditional role-playing game structure with characters improving through a leveling-up system – the more time played and more monsters killed, the stronger characters will get. The Forest of Kahruvel is also a natural setting (see Figure 50). It is an old-growth forest where visitors find endangered botanic specimens. At first it looks like there is few to explore; but visitors end discovering that there is a mystery that needs to be solved.[91]

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[90] For more information about the game see http://darklifehq.wordpress.com/about/.
[91] For more information about the game see http://web.mac.com/salazarjack/Site/Welcome.html.

Figure 49: DarkLife　　　　　　　　　**Figure 50: The Forest of Kahruvel**

The Pot Healer Adventure – Numbakulla Island Project was the following destination (see Figure 51). Here all are invited to take part in an adventure game:

> To the explorers who come after me…
>
> It was my grandfather who first told me about the family legend of Numbakulla. Often as a child I would sit and listen to him talk about the history of the island and the sacred task of looking after the trees. Eventually, my interest grew, and I resolved to find the island, and discover whether his tales were true.
>
> So it was I came here, ten years ago, on a quest to make a link with my ancestors, and read their minds through what remained on the island. In that time, I have made myself a house in the great tree, which is not one of the sacred trees of Numbakulla, but a beautiful tree nonetheless. I have tried to repair things where I may, and have kept a record of my explorations.[92]

From here visitors are invited to take part in solving the mystery. Action follows through solving different puzzles and by collecting notes left by the last explorer. After visiting this natural fantasy setting the next destination was Hollywood Bowl (see Figure 52), where besides a recreation[93] of the famous modern amphitheater in Hollywood (Los Angeles), is the Starboards Yacht Club, the oldest Yacht Club in *Second Life*. Here visitors are invited to sail and take a role in organized races and regattas. Because of this possibility this is considered by the official guide as a role-play space, but when compared with those visited previously it does not look like a game, but a non-gaming leisure activity. Boats were not simple to maneuver, but sailing in open ocean was a different experience. In spite of not being a role-play destination, visiting this location was worthy.

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[92] Note available near island's arrival area. It set up the tone of the game.
[93] Hollywood Bowl stage several events, mainly musical performances.

Figure 51: The Pot Healer Adventure   **Figure 52: Hollywood Bowl**

Avilion Mist, alternatively, is really a game-based space; a medieval fantasy one (see Figure 53). In order to enter the game is necessary to follow the dress code – medieval outfit. For those who have not such a garment in their inventories, game masters make available a free one in the game entrance area. For female avatars was a pale green simple medieval dress. The game area was vast and complex, with different settings within the giant forest. From all the visited role-play spaces this was the most active one; players kept arriving. The interaction between users was really interesting to obverse, since the majority was part of that fantasy setting, performing well-defined roles.

Figure 53: Avilion Mist

The following group was 'wonders of *Second Life'*, places considered by the official guide, but also by residents, as being of almost perfect beauty, as: The Lost Gardens of Apollo, Second Louvre Museum, Artropolis, Museum of Contemporary Art of Neufreistadt, Caves of Lascaux and Berry's Bazaar, Zero Point, Ethereal Teal, and Etopia Ecovillage. This is one of the most abstract categories so far; among the chosen destinations there are very different spaces. Some of them were truly amazing, others were not so remarkable. The Lost Gardens of Apollo are indeed one of the most famous places in this virtual world. It was created in 2005 and since then is one of the most visited places of *Second Life*. The architectonic structures are astonishing; and diversity is offered to visitors, from quiet and relaxing refuges to more public spaces, in this island everything is pleasant and appealing:

Welcome Area, Salsas y Boleros (dancing floor), Hyacinth Valley (tai-chi area), Bluebay club, Bridge Chapel, Apollo Towers, Floating Pools, Apollo Harbor, Temple of Serenity and Cirque de Clair de Lune (see Figure 54). Second Louvre Museum, on the other hand, offers a different type of experience. It is a museum where were exhibitions of *Second Life* artists' work. This was another location that did no longer exist in the second observation stage. The museum exhibited *Second Life* artists' work, paintings and sculptures. Some pieces had available information about its meaning, and about the creation process. Artropolis is also an artistic location; here are available in-world artists' ateliers and is possible to see some of their work in a cozier atmosphere (see Figure 55). Artropolis is considered one of the most important artists' community of the metaverse. The city was built in slopes and the buildings integrated with the natural environment. This place is interesting not only because the works of art available to enjoy or even buy, but also for its architecture. Exploring Artropolis only by foot is an interesting adventure.
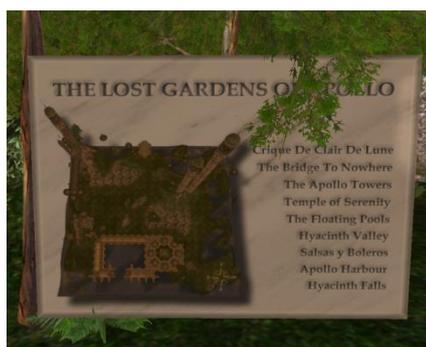
Figure 54: The Lost Gardens of Apollo Map

Figure 55: Artropolis

The Museum of Contemporary Art of Neufreistadt is located in one of the oldest *Second Life* towns – Neufreistadt. This was the first self-governing community of the virtual world – citizens can influence almost every aspect of the city's administration. Despite being and interesting Bavarian inspired location, attention was focused on the Museum of Contemporary Art (see Figure 56): "The Centre for Cultural and Artistic events in Neufreistadt".[94] It is organized around two exhibitions, the permanent and the temporary; both present works of art produced in-world and within Neufreistadt community. The building architecture is characterized by its straight lines and simplicity. In spite of having a contemporary style the museum is well included in the cityscape. Next destination – Caves of Lascaux and Berry's Bazaar, a reproduction of Lascaux Caves (South France),

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[94] Description available in 'Place Profile' (only accessible in-world).

UNESCO World Heritage Site (see Figure 57), with a nearby small commercial area. The reproduction of the primitive paintings is really detailed and the underground atmosphere compelling; but the site is not interactive and because of that visitants of this location remain more time in the shop than in the caves.

Figure 56: Museum of Contemporary Art (Neufreistadt)   **Figure 57: Caves of Lascaux**

Zero Point is part of the locations that were no longer available in the second round of this tour. This was an 'immersive art installation' with futuristic inspiration; was worthwhile of visit but compared to other locations there were not that much to see, or do. From there the journey continued to Ethereal Teal (see Figure 58), a hospitable location where different activities and places to explore are available, like St. Mark's Plaza, the Firework Show, Ethereal Beach, the Floating Citadel, Jopsy's Workshop (Ethereal Teal owner), the Caves, Cloud Chateau, and the Particle Lab. One of the main characteristics of this island is the 'particles shows'[95] known as Firework Show; by the sunrise is possible to watch a particle spectacle up in the sky. For those curious to learn more about the scripting of particles a tutorial is available in Particle Lab with all one must know about particles and how to script them. The following destination was also very welcoming, and also has an educational component, Etopia Ecovillage (see Figure 59), an ecologic community that looks forward a balanced and sustainable life:

> Etopia is home to a variety of organic, cooperative, and sustainable living systems. We live, work, play, and learn in cooperation with others. We have built our village to reflect how we can provide the necessities we need to survive without negatively impacting our environment. From wind turbines to green roofs and organic farming we've created a unique and inspired simulation that will engage and inform.
>
> Visit us and you'll find agriculture, recreation, and wild lands in addition to homes, shops, offices, and educational venues scattered throughout our community. Etopia is *Second Life*'s premier Environmental Eco-Village showcasing real world examples of sustainable living, renewable energy generation, urban agriculture, and

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[95] Literally particles of virtual dust (the smallest unity possible) combined in dynamic ways.

cooperative community among the residents. We built our village to provide a venue that highlights the accomplishments of our residents. Visit us today and share in an experience you'll not only enjoy, but grow with.[96]

In Etopia Ecovillage visitors find: Sustainable Library (free access to information about sustainability), Eagle Park, Bike Shop, Main Landing, CoHousing – the residential zone, Options for Life (educational area), Drumming Circle and Mall, where one can go to Tsidell's Café, Arcade, Bandstand, or to the Rental Office and rent an available commercial space. This is a highly educational location, where is possible to access information in multiple formats – to read it in digital books or note cards, watch movies or perform tests – for instance, in order to understand wind power visitors are invited to operate a windmill connected to a generator to produce electricity.

Figure 58: Ethereal Teal   **Figure 59: Etopia Ecovillage**

The sixth group was made of 'spaces for learning', and among the recommended locations the chosen were Virtual Hallucinations Project, Virtual Ability, The Holocaust Museum, The Better World Island, Tatsumi no Machi Shinagawa, and Literature Alive!. Virtual Hallucinations is part of a research project on Schizophrenia conducted by UC Davies School of Medicine. This is a highly informational and interactive space that leads visitors through the minds of patients suffering with schizophrenia (see Figure 60). The setting is well constructed and the performance of the tests available is good; there is no lagging, but the place's maximum capacity is low. Virtual Ability is also a health educational area (see Figure 61); the goal here is to help disable or ill players to take advantage of the freedom offered by the virtual world.[97] Here the information is organized through an outdoor green area where visitors will find: Welcome Center, Orientation Center, Advanced Tutorials, Blue Orchid Cabana, Yellow Hibiscus Cabana, Sojourner Auditorium, and the Mentor Park. The Virtual Ability community has more properties in *Second Life*, the majority of

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[96] For more information visit Etopia community website at http://etopiaisland.org/index.html.
[97] For more information visit Virtual Ability website at http://virtualability.org/default.aspx.

which are closed residential areas. The project is growing so fast that they are already exporting their 'offices' to other virtual worlds, like InWorldz.[98]

Figure 60: Virtual Hallucinations   **Figure 61: Virtual Ability**

The Holocaust Museum and The Better World Island were developed also with educational purposes, but different ones. The Holocaust Museum was a virtual museum for the remembrance of Holocaust memory; and was developed by a first life Israeli Rabi working in the Netherlands. Unfortunately this location was not available anymore during the second stage of this observation, it was a very educational tool where was possible to watch historical videos, see propaganda material of Hitler's Party, newspaper clipping, photographs and the reproduction of other historical documents from the time of the Second World War. The Better World Island is a space that aims to call visitors' attention to some dramatic events that are taking place in our world (see Figure 62). The space is organized around the following areas: Peace and Justice Center, Center for Water Studies, Care.Org, Camp Darfur, Amphitheater, Bagdad Streets, Wild Coast, Quixote (community residential area) and Tranquility Zen Retreat. Tatsumi no Machi Shinagawa offers information about a specific era of Japanese culture – Heian (see Figure 63). It offers a wide space for exploring Japanese culture. When compared with other locations from this group, this location is not that much interactive, what difficults the learning process. Literature Alive! is also not much interactive; it belongs to Drexel University (Philadelphia) and is ready for public presentations despite their rooms being small. There was not much information available about this educational project.

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[98] http://inworldz.com/.

Figure 62: Better World – Camp Darfur   **Figure 63: Tatsumi no Machi Shinagawa**

The next group was 'artificial life spaces'. There are not much locations under this category; artificial life is related with the "field of study and associated art forms that examines systems related to life, its processes, and its evolution, using simulations based on computer models, robotics, and biochemistry" (Rymaszewski *et al*.: 2008 [2007]: 54). The visited locations were Svarga and Terra.mellifera; Svarga was only available during the second stage of this observation, and Terra.mellifera only in the first.[99] Svarga 'disappeared' from the grid in August 2009; it was bought by Linden Lab and relaunched in 2010. Svarga has the most complete artificial ecosystem of *Second Life* (see Figure 64). Here plants need rain to grow; plants, birds and insects go by all their natural cycles. The best way to have a panoramic view of the island and at the same time learn about its history and goals is to take a 'giant wasp tour' available at the arrival spot. Terra.mellifera is a project of Australia Council for the Arts, and was created in the scope of a research project about artificial life:

> Central to this ecologically sensitive artwork is the artists' direct engagement with various aspects of bee behavior at Queensland Brain Institute, where researchers are investigating cognition, navigation and communications in the honey bee.[100]

Figure 64: Svarga

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[99] On August 2010 Terra.mellifera moved out *Second Life* and 'rebirth' in *OpenSim* platform under the name neoNascent. For additional information visit http://mellifera.cc/.
[100] http://mellifera.cc/2010/08/06/about-mellifera/.

Compared to Svarga, was harder to understand Terra.mellifera goals; they had available some information and was possible to enjoy some artistic creations, but the theme 'artificial life' was not so evident.

The eighth group – 'spiritual places' had as destinations Support for Healing – Zafu's Spiritual Retreat, St. Paul's Cathedral, Asagao Memorial Park, First Unitarian Universalist Church in *Second Life*, GLBT Holocaust Memorial, Hinei Gardens, Heart of Brightness Temple of the Buddha of Light and Freedom, Al-Andaluz Mezquita, Skeptical Buddhist' Sangha, and Anam Turas Pagan Learning Grove. As happened with some of the previous categories, the goal was to choose a wide variety of religious and/or spiritual locations to perceive the diversity offered in-world. Support for Healing is a first life non-profit organization sponsoring an online space for people with mental health problems. In its Zafu's Spiritual Retreat, a Buddhist inspired quiet place visitors can relax and enjoy the surrounding serenity. Some time was spent there despite the interactivity level being low. St. Paul's Cathedral offers other type of spiritual place, and it is a replica of London's Cathedral. Here visitors can pray and enjoy the architecture. It is not also a very interactive location but the details of construction are amazing and it is a site suitable for reflection (see Figure 65). Asagao Memorial Park, on the other hand, is a space "dedicated in memory of those lost to suicide and intended to support those affected by its loss" [101] (see Figure 66). It is a Japanese inspired garden, where visitors find: Temple, Upper Temple, Park (outdoor area), a campfire with a lounge area, and introspection spaces (individual and collective ones) located in different zones.

Figure 65: St. Paul's Cathedral   **Figure 66: Asagao Memorial Park**

The First Unitarian Universalist Church in *Second Life* (see Figure 67) is a spiritual community whose mission is described in the following way: "We are the pioneers of

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[101] Description available in 'Place Profile' (only accessible in-world).

Unitarian Universalism in this new world, committed to spiritual growth, spirited discussion and service to one another, to our community and to our world".[102] The setting is organized in three areas – Welcome Center, Grand Sanctuary, and Pagan Stone Circle. Here members of the community get together, services and meetings are held. The Universalist Church is not devoted to any faith, but to seven principles: the worth and dignity of every person; justice, equity and compassion; acceptance of one another and encouragement to spiritual growth; a free and responsible search for truth and meaning; right of conscience and the use of the democratic process; peace and liberty for all; and respect for the interdependent web of all existence.[103] The GLBT Holocaust Memorial is a different type of spiritual place – a site of remembrance of those who have been murdered because of their sexual orientation (see Figure 68). The Memorial is situated in Provincetown and allows visitants to leave a rose; due to the limited number of *prims* the space supports, is no longer possible to leave objects chosen by players as it was before, now is only possible to leave roses, and non-permanent ones – lasting only last 24 hours.

Figure 67: First Unitarian Universalist Church   **Figure 68: GLBT Holocaust Memorial**

Hinei Gardens, 'a place for healing'[104] is a Judaic inspired place, where people from all faiths are also welcome (see Figure 69). This space is friendly and offers different activities to visitors; these are available in different areas, like Sky Grove, Lowe Bridge, Island, Forest Grove, Gardens, Hills, Bay and Bunny Den. Heart of Brightness Temple of the Buddha of Light and Freedom, conversely, is a Buddhist temple where visitors may meditate, relax or perform martial arts (see Figure 70); and Al-Andaluz Mezquita a Muslim religious space. The mosque surroundings are inspired in Spanish region Andalucía, and the mosque itself is a replica of Cordoba's one (see Figure 71). The mosque is open to all but there are two rules they ask visitors to follow – women should wear a veil and all are

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[102] http://www.fuucsl.org/wp/?page_id=56.
[103] For more information visit http://www.fuucsl.org/wp/.
[104] Description available in 'Place Profile' (only accessible in-world).

supposed to take off shoes before coming in. For taking one of the available veils visitors are paid L$2. However, there were not an indication regarding this payment, it seemed a way to thank visitors for respecting the request.

Figure 69: Hinei Gardens

Figure 70: Heart of Brightness Temple of the Buddha of Light and Freedom

Figure 71: Al-Andaluz Mezquita

In Skeptical Buddhist' Sangha visitors find a natural setting (see Figure 72) to "Meditation and discussion of the teachings of the Buddha as well as a virtual path explaining the basics of Buddhism in plain English";[105] and in Anam Turas Pagan Learning Grove (see Figure 73) also a natural location but this with pagan, druid and shaman inspiration.
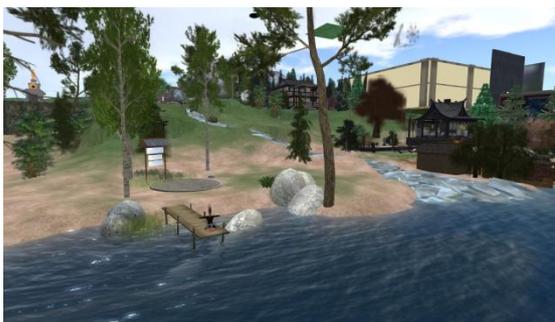
Figure 72: Skeptical Buddhist' Sangha

Figure 73: Anam Turas Pagan Learning Grove

The following category is one of the most wanted by *Second Life* residents – 'dating and romance', social destinations where is possible to meet new avatars: Cirque Mystique, France Pittoresque, Blue Note Retro Jazz Lounge, and Casablanca Society Lounge. Cirque

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[105] *Ibidem.*

Mystique was a disco club in a pirate ship that has the particularity of being in the middle of the ocean. Despite being a very populated destination this place did no longer exist in stage two. The ship was an interactive setting that could be explored, and in the inferior stage was the club. France Pittoresque is a hangout spot with different characteristics; this is the space of French community. There visitors find a very active social space where is possible to enjoy the beach, games area, shops, freebies, and romantic zones as the 'Arbre Des Amoreaux' and the 'Grotte' (see Figure 74). The Blue Note Retro Jazz Lounge and Casablanca Society Lounge are spaces targeted for people with specific tastes – the first is a jazz club (see Figure 75), and the second an 'Old fashioned romantic Dance and Jazz Club'[106] (see Figure 76). These locations were chosen with the goal of experimenting different social locations for a night out.

Figure 74: France Pittoresque   **75: Blue Note Retro Jazz Lounge**

76: Casablanca Society Lounge

The last category is also one of the most famous within this virtual world – 'shopping'. To realize the different possibilities available the chosen locations were: Galvestone Island, House of Blade Mall, Zai-Gear, Nonna Hedges, and Second Skies. Galvestone Island is an outdoor shopping center (see Figure 76); there is possible to shop and also to 'camp'[107] in

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[106] *Ibidem.*

[107] Camping is the expression used to characterize the paid activity of being in a certain location. In the case of Galvestone shop owners pay to have avatars promoting their businesses in the street. The values paid were from L\$2 to L\$5 per five minutes.

different locations. House of Blade Mall, on the other hand is a Japanese inspired shopping mall (see Figure 78) where visitors can buy proper Japanese clothes, swords and knives, for instance, but also a martial arts public pavilion. Zai-Gear was a very peculiar shop where the main product was futuristic looking avatars – to buy a 'ready to wear' avatar is the simplest way to edit your appearance, and usually these avatars are good-looking ones. The store had already closed in stage two. Nonna Hedges is a luxurious clothing store. There is a great amount of different outfits and accessories to choose, and the presentation mode is different from the majority of commercial places, instead of having photographs of the different articles, they have mannequins allowing buyers to have an accurate perception of what they are buying (see Figure 79). The last visited shop was Second Skies, the shop of an airships' manufacturer (see Figure 80). This store is highly interactive and is possible to test a large number of products, from zeppelins to combat airplanes. The opportunity to test these products was taken, and was quite an experience.

Figure 77: Galvestone Island

Figure 78: House of Blade Mall

Figure 79: Nonna Hedges

Figure 80: Second Skies

I consider that visiting all these locations and observing a predefined set of categories in all of them helped to better understand how residents relate to territory. Having in mind that land owning is one of the distinctive characteristics of this virtual world, in the following chapters the relationship established between players and land will be analyzed, as well as the space-generated narratives players are building within this virtual 'land of opportunity'.

2.2. From Space to Places through *Prodused* Spatial Narratives

> Every human being is interested in two kinds of worlds:
> the Primary, everyday world which he knows through his senses,
> and a Secondary world or worlds which he not only can create
> in his imagination, but which he cannot stop himself creating.
>
> (Auden, 1976 [1967]: 81)

By the time *Second Life* was launched the game space area was very limited. There were only two main areas: Mainland and Outlands, and a lot of virtual space to be bought and explored. By that time Linden Lab managed the continents and created some locations within them, but there were already available *prodused* places like Americana, Gibson or Lusk. If one looks to a more recent version of *Second Life* world map the growth of the territory is evident, Linden Lab manages more continental areas – a total of 9, but the geography of this virtual world is now characterized by the amount of islands that populate its sea. While Mainland territories are still managed by Linden Lab, islands are managed by private owners – individual or collective ones. The majority of visited locations was managed by private owners, and was not part of Mainland territories. Despite some of the islands being amazing and well-built locations, it became obvious that Mainland territories are more harmonious in the sense they seem always to be part of a whole. In some of the visited islands the experience was mixed, sometimes there are extraordinary locations that do not occupy a whole region, and the neighbor parcels were built in a very different style. This is a common situation, players buy entire regions to divide them in smaller parcels and sell them to other players. As territory is managed by private owners Mainland building rules do not apply, and most times owners do not request all buildings to be developed under the same theme, or to have similar characteristics. In order to develop communitarian thematic regions players tend to get organized in groups and parcels of land sold only to members, who commit to respect the global ambiance.

Mainland territories have another distinctive characteristic – contiguity. While islands are surrounded by *Second Life*'s sea, in Mainland is possible to walk or fly through a contiguous area of 'inhabited' territory. Due to this fact, encounters with other avatars tend to be more spontaneous. Instead of teleporting to a specific destination where the tendency is to encounter a small sample of different avatars, in Mainland is possible to meet all types

of players. Mainland territories may, then, be the best locations to start discovering *Second Life*; however it is through the analysis of private propriety that the relationship established with territory became evident, and private property is concentrated mainly in islands.

Through land ownership players are creating their own places within cyberspace. The 'settlement' of cyberspace is not a new phenomenon, it started since the beginnings of internet but became more evident when web 2.0 stage was achieved (Hills, 1997; Jones, 1997; Markham, 1998; Morse, 1998; Poster, 1996). Despite some scholars disbelief in digital media place making capabilities (Meyrowitz, 1995), social networking sites, blogs, and video and photo-sharing sites are examples of this phenomenon. I would like to propose that *prodused* virtual worlds take the possibility to be a content creator even further, allowing players to build their own cities, or in some cases their own worlds. In *Second Life* players may be landowners and create everything they want. In digital spaces with these characteristics players bonding with territory is of major importance, because it is the main trigger to invest time, and money in order to see land becoming prosperous. Being able to offer an individual relationship with territory is considered one of the most relevant features of virtual worlds to catch users' attention (Bartle, 2004; Boellstorff, 2008; Gelernter, 1991; Graham, 2002; Ondrejka, 2004; Turner and Turner, 2006).

Second Life is not growing in a 'traditional' way; albeit territory grows at the same rhythm players arrive or departure the virtual world, it is not similar to *World of Warcraft* or *EverQuest* territories which are totally managed by the respective owning companies. *Second Life* land development results mainly from players' work. In the case of this digital environment there is no *a priori* environmental storytelling defined (Carson, 2000), and players are taking an active role in space development transforming empty digital space into inviting places. Players are contributing to in-world architecture, which gives them the possibility to enrich the digital setting with individual and collective narratives since "a landscape whose every rock tells a story may make difficult the creation of fresh story" (Lynch, 1960: 6).

The analysis of spatiality in game environments is a well explored element (von Borries, Walz, and Böttger, 2007). Space and place making are considered inevitable in virtual 3D worlds and its digital territories are even characterized as "allegories of space: they pretend to portray space in ever more realistic ways but rely on their deviation from reality in order

to make the illusion palpable" (Aarseth, 2007: 47). Contrary to the position assumed by some virtual worlds' researchers, as Tom Boellstorff in his book *Coming of Age in Second Life* (2008), for this research space and space were not taken as synonyms. So, in order to understand the urban development of this virtual world is necessary to define the concepts of space and place because "space and place have become totemic concepts for those exploring social, cultural, economic and political relations" (Hubbard and Kitchin, 2010: 2). The main references for this conceptualization will be the work developed by Yi-Fu Tuan (2001 [1977]), Henri Lefebvre (1991 [1974]), Michel de Certeau (1994 [1984]) and Marc Augé (1997 [1992]).

According to Yi-Fu Tuan (2001 [1977]) both space and place result from our experience as human beings and the negotiation made with the surrounding environment. Nevertheless the relationship established with space and place is different. Tuan presents space as being more abstract than place: "What begins as undifferentiated space becomes place as we get to know it better and endow it with value" (*ibid.*: 6). Space becomes place by being structured and by acquiring meaning, meaning that may be subjective and individualistic, or collectively shared by a community. Henri Lefebvre (1991 [1974]) suggests that space is produced through a 'conceptual triad': spatial practice, representations of space and representational space. Spatial practice results from the specific use of social spaces. Representations of space are outcomes of the conceptualized space: 'the space of scientists, planners, urbanists, technocratic subdividers and social engineers, as of a certain type of artist with a scientific bent' (*ibid.*: 38). Representational space emerges from the relationship established between spatial practice and representations of space; it emerges from our experiences. And according to Lefebvre "(social) space is not a thing among other things, nor a product among other products: rather, it subsumes things produced, and encompasses their interrelationships in their coexistence and simultaneity – their (relative) order and/or (relative) disorder" (*ibid.*: 73). Space is then not abstract because it is socially produced and 'spatialization' is an active creation. Space results from the combination of geographical space, landscape and property. It is both a product and a medium. Michel de Certeau also considers that is difficult for space to be abstract:

> Space occurs as the effect produced by the operations that orient it, situate it, temporalize it, and make it function in a polyvalent unity of conflictual programs or contractual proximities. On this view, in relation to place, space is like the word

when it is spoken, that is, when it is caught in the ambiguity of an actualization, trans-formed into a term dependent upon many different conventions, situated as the act of a present (or of a time), and modified by the transformations caused by successive contexts. In contradistinction to the place, it has thus none of the univocity or stability of a 'proper.' (1994 [1984]: 117)

de Certeau suggests that "space is a practiced place" (*ibidem*), and it takes shape when moving between places. Following this perspective, cartography gains a new utilitarian and cultural meaning as will be seen subsequently. Marc Augé (1997 [1992]) instead of opposing space and place suggests that there is another interesting binomial to explore in an era of globalized flows of people and communication – place and non-place. Place, or anthropological place, is localized, occupied, familiar, organic, historical and meaningful to its occupants and visitors. Augé attributes three main characteristics to anthropological place: it is a place of identity, of relations and of history (*ibid.*: 52). And going further his analysis he states: "of course, the intellectual status of anthropological place is ambiguous. It is only the idea, partially materialized, that the inhabitants have their relations with territory, with their families and with others" (*ibid.*: 56). Non-places arise from the transformation of place by supermodernity's flows. Archetypal non-places are motorways, airports, shopping centers and theme parks, for instance. Cyberspace can also be a non-place, however nowadays is already possible to create disperse, or aggregated in particular platforms, virtual anthropological places, as will be verified when applying this concept to the analysis of *Second Life*'s spatial development. Non-place is then "a space completely emptied out of eventfulness or, which is but the other side of the same coin, a world saturated by an overabundance of utterly meaningless events" (Bosteels, 2003: 136); and "as anthropological places create the organically social, so non-places create solitary contractuality" (Augé, 1997 [1992]: 94).

Following the ideas proposed by Lefebvre (1991 [1974]), Tuan (2001 [1977]), de Certeau (1994 [1984]) and Augé (1997 [1992]) it may be considered that space, representational space, place and non-place are key concepts to understand geographical development. Place is defined by the experience of those who inhabit it (Hubbard and Kitchin: 2010). The transformation of space into place occurs through its organization (order) (de Certeau, 1994 [1984]); when space becomes structured emotions tend to be attached to it, it gains meaning (Bardzell and Odom, 2008; Tuan, 2001 [1977]). Space is then pre-ordered, "situated as the act of a present (or of a time), and modified by the transformations caused

by successive contexts" (de Certeau, 1994 [1984]: 117), but undoubtedly a cultural phenomenon. Representational space is the result of a more personal relationship with space – like an in-between stage, between the 'pre-ordered' space and 'ordered' places. Places are the realization of the lived experience within the representational space; it is the lived experiences that give the opportunity to control and appropriate space. And non-places result from the fluidity of some places and from the difficulty of bonding with some transitory destinations, either due to its lack of content, or for its excess.

I would like to suggest that these four categories may also be applied to virtual environments, and they will be helpful for better understand the relationship players develop with the game space. The transformation of space into place within 3D game environments is almost inevitable. Due to the sense of being there – immersion, users tend to attribute meaning to the different visited locations. Following de Certeau proposal the constitution of virtual space may be understood as the result of joining human creativity, technology and the desire of space control. Nevertheless, the emergent 'cybernetic society' in *Second Life* is not "self-moving and technocratic" (*ibid*.: 136) as de Certeau conceptualized highly technological societies, it is a creative and participative one, where players have a close relationship with territory and are responsible for the majority of locations available. Because of this particular characteristic it may be considered that in this virtual world both space and place, and its ramifications in representational space and non-place, are culturally produced through player generated space narratives. These narratives emerge through the use of design and technology to "contrive and control a space for utterly free and self-governing action" (Malaby, 2009: 2). It is the relationship one establishes with the virtual space and places that defines individual 'stories' within this alternative sphere. While in the virtual world players feel free to explore, socialize and build, but in spite of being considered as an almost free space *Second Life* is controlled by Linden Lab, as seen in the previous chapter. Players feel free but is the company that controls the main power – the platform's code and servers' control. The awareness of this control is not always present, because the actions of the 'ruling class' (the 'Lindens')[108] are

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[108] The representatives of Linden Lab in the virtual environment – the most important figure is Governor Linden, the virtual *materialization* of company's ruling power. There are also representatives of Linden Lab staff, and those are all the avatars whose last name is Linden.

not always evident, and due to the world's size residents do not come across 'Lindens' often.

In order to understand the process of 'colonization' of virtual worlds by users, the concepts of space, representational space, place and non-place will be applied to characterize how residents are making their own places within *Second Life*. When the first 'settlers' arrived they found an almost empty land that offered them the opportunity to own and manage it. After nine years the result is a virtual space organized in a network of places and representational spaces, and some non-places. Due to the possibility offered to players to have an active role in game space development, I consider that *Second Life* is an interesting repository of *prodused* content. It is remarkable how the transformation of space into place reveals players preferences regarding the places they want to live in and/or spend time in. Within this virtual environment is possible to find almost everything, from underwater bars, skyboxes (floating houses), or idyllic fantastic environments, to recreations of first life places. In *Second Life* space is mainly perceived through maps,[109] as it does in first life; and place is perceived through exploration. Due to world's dimension and topography is difficult to explore it 'by foot', or even flying. As already stated the majority of territories are islands and to cross the virtual sea it would be necessary a fast boat and good sense of direction. The easiest ways to find specific places is through the official destination guide (available in-world and in *Second Life*'s official site),[110] the platform's search engine or through directly clicking in a world-map's location. Only the first two options give direct access to complementary information about the chosen locations.

Second Life world has been explored for the past three years and during this time it became clear that avatars have a close relationship with land. Owning land is really a major feature of this virtual environment and territory grows hand in hand with population. When residents' number increases, Linden Lab makes available new plots of land, mainly in the form of islands. Islands are the most requested plots of land since they offer buyers a greater freedom and possibilities – they can build it up or divide in smaller parcels, and sell or rent them. Land is a very wanted commercial product and real estate, as seen in the first chapter, is one of the main economic sectors in-world. It is possible to buy developed or

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[109] This point will be developed later in the sub-chapter entitled 'Fluid geography'.
[110] http://secondlife.com.

undeveloped pieces of land. The difference is that the first were previously developed by Linden Lab, or by other players in the case of parcels sold back to Linden Lab,[111] while the second are the perfect investment to "Start from scratch and live your fantasy!".[112] Mainland territories are scarcer nowadays, and as residents seem to prefer to invest in islands, Linden Lab does not offer many parcels of Mainland land in their auctions. Regarding islands, or full regions, is possible to choose among: 'Loch Lake' – an oval-shaped island with a small lake in the middle and some very low hills (see Figure 81); 'Prima Point' – a rugged coastline and mountainous terrain (see Figure 82); 'Hill and Dale' – a large land mass with a few rolling hills (see Figure 83); 'Oceanica' – 'piece' of *Second Life*'s Ocean, with 20m deep (see Figure 84); 'Plain Plains' – a flat, green terrain at 30m height (see Figure 85); and 'Ruth's Retreat' – a mountainous terrain with an East facing lagoon and a large peak on the Northwest side (see Figure 86).[113]

Figure 81: Loch Lake

Figure 82: Prima Point

Figure 83: Hill and Dale

Figure 84: Oceanica

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[111] Which mainly occurs with Mainland territories.
[112] https://land.secondlife.com/en-US/.
[113] For more information about owning land in private regions visit https://land.secondlife.com/en-US/private-regions.php.
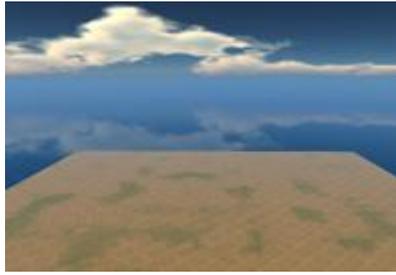
Figure 85: Plain Plains

Figure 86: Ruth's Retreat

After choosing one of these plots of land residents are ready to begin developing their self-spatial narratives. Throughout the world is possible to admire *prodused* places, as well as representational spaces and even some non-places, created from one of these standard geographical configurations. The majority of these locations are very complex as seen in the brief description of the locations visited during the netnographic observation – they are compound of different elements (natural and/or architectonic) and 'decorated' with many objects. It is rare to find a 'simple' place that does not offer a minimum level of interactivity to the visitor. These locations seem built not only to entertain, but to make visitors comfortable and connected with the game space. Despite having residential areas, the majority of visited places is public and seems created not only for individual purposes but also for collective ones. Some of these locations were constructed to transport visitors to fantasy realms, looking dreamily real. From what was observed it seems that the more interactive and complex a location the more people seem to consider it as places and to spend more hours there. The majority of the areas visited were owned and managed by groups of residents and reflected the groups' purposes – for instance, Artropolis is owned by a community of artists and is a village constituted by ateliers where visitors find different exhibitions; Luskwood is owned by a community of furries that manage a social area settled within a natural environment; Epiphany Island is owned by an Anglican community and offers a place for worship and reflection; France Pittoresque is managed by the French community and offers a social place where French is the main language and predominant cultural frame; or Avilion Mist owned by a role-play community inspired by medieval fantasy and that offer to visitors a thematic commercial space and a public role-play gamespace.

Another interesting aspect was the tendency of in-world places to follow some first life rules. Despite the fact that within *Second Life* players are free from the majority of constraints, they tend to design spaces that reflect first life needs. Almost all places visited

108

were decorated with detailed objects, and offered comfort to its visitants: for example, is usual to find sitting places from different types throughout the world; avatars build houses with kitchens, living rooms, bedrooms and bathrooms; and public places offer many different activities and ways of interaction. I suggest that the possibility of interacting with recognizable objects and of having 'routines' similar to the ones of first life are important for the feeling of immersion. The interactive nature of the majority of the places allows visitors to have their own experiences. Experiences that occur through the use of places, but also in the moment space is being transformed into representational spaces and/or places. This transformation usually occurs through productive and shared play.

Thus it may be considered that space in *Second Life* is not abstract but socially and culturally developed because

> The familiarity of the represented space is central to the user experience. And the immersive qualities of technology, facilitated by the spatial parameters of avatar-led navigation, offer a sense of presence not possible in traditional web media. In this sense, place becomes yet another potential infrastructural component of virtual space. (Gordon, 2008: 202)

And places, as well as representational spaces, emerge when players have a closer relationship with territory and attribute meaning to it. Usually this meaning attribution is obvious through the analysis of time and money investment in virtual land. Players' investment in *Second Life* is recognizable through the analysis of private property. On one hand players tend to develop locations having place-like features: "they exist at all times, you can visit them and you can do things while you are visiting them" (Bartle, 2007: 158), and some of them can even be relational, historical and concerned with players' identity. On the other hand, there are also locations emptied from personal or collective meanings, assuming characteristics of non-places – they are crossing points, to other more significant locations, or are just there waiting for being visited without offering much to visitors besides a geographical location.

I think it is important to acknowledge that place making in virtual worlds has a very important role, once within them social interaction is primarily structured around space and spatiality. Eric Gordon in the article 'The Geography of Virtual Worlds' proposes that space's centrality in digital environments is a crucial feature, because it 'spatializes' digitally mediated communication (Gordon, 2008: 201). According to E. Champion and B.

Dave (2007) there are three types of virtual places that may be created within virtual environments: spatial visualization, activity-based, and hermeneutic virtual environments. Players establish different relationships with each of them. To a better understanding of the nature of places created in *Second Life* these three categories will be briefly characterized. 'Spatial Visualization Virtual Environments' are virtual places that represent only spatial configurations and allow users to interact with objects. The second type is 'activity-based', where users may accomplish tasks through the interaction with territory. The third type is 'hermeneutic' and includes environments that require 'the ability to personalize and communicate individual perceptions through artifacts' (*ibid*.: 342). As is difficult to feel emotionally attached to a virtual place in the same way we do in first life, hermeneutic virtual environments are not straightforward to create. Nevertheless, by being owners of the majority of in-world content, residents establish a close relationship with the virtual territory, and to understand the meaning that their individual and collective places have for them I believe we need to consider the possibility of a 'mild hermeneutic immersion' category (*ibid.*: 342). 'Mild hermeneutic immersion' is achieved when users use cultural and social codes from first life to interact with other avatars, and also with territory. Clearly, one cannot assume that all places available in *Second Life* are 'mildly hermeneutic'. As they are created by different residents with different goals, is difficult to ensure that all available places are engaging. Within this virtual world, immersion occurs through engagement with other users and with territory, and is achieved when residents are able to interact in a dynamic and memorable way with and within the digital setting.

There are three investigations on *Second Life* spatial dimension that help to visualize the role played by place making. The research conducted by Shaowen Bardzell and William Odom (2008) focused on how space and place are culturally produced in Ithaca, one of the Gorean communities in *Second Life*; the study developed by Paulo Frias (2010) on the Portuguese community and the settlement of the virtual territory; and the work of Rodney Harrison (2009) on cyber-archaeology and the role of heritage sites in this virtual world. Bardzell and Odom's (2008) research examines the mutually constituted relations among avatars, space and artifacts in a thematic community in *Second Life*. The Gorean community is established around the ideas presented by John Norman's science fiction novels. The first novel was published in 1966 – *Tarnsman of Gor*, and the last in 2011 – *Mariners of Gor*. The series was a success in the late 60's and 70's, and is not over yet,

there is a title announced to be published in 2012 – *Conspirators of Gor*. Since its first days the series had a number of faithful fans that took the relation with the fictional environment further and attempted to live their lives according to the Gor philosophy: the respect of a natural order in the relations between men and women, meaning that "men 'naturally' desire to dominate women and women 'naturally' desire to be dominated by men" (Boellstorff, 2008: 163). Gorean communities took advantage of the possibilities offered by virtual worlds and there are several of this thematic communities in *Second Life* (Bardzell and Odom, 2008; Boellstorff, 2008; Martínez, 2011; Sixma, 2009). Bardzell and Odom verified through their fieldwork that space and place are culturally produced in Ithaca and that "they are in turn integral in the making of its virtual culture and community" (Bardzell and Odom, 2008: 240). Among Gorean community members space is transformed into place by attaching meaning to virtual land. Meaning is achieved through the performance of several group activities and also by the building of private spaces, for example,

> the use of a Skybox as personal space reflects members' appropriation of 'conventional' conceptualizations of suitable space for place, symbolically highlighting the need to carve out a personal place distinctly separate from community space. (*ibid.*: 246)

Bardzell and Odom (2008) also noticed that there was a difference in public and private spaces complexity level: private were less complex, than public ones. Public spaces offered more interactivity and were prepared to receive a larger amount of residents. The goal of the majority of these locations was to maintain residents there and to involve them in community's routines: "(…) we see a trend in 3D immersive virtual worlds where the meaning of a place is interpretively constructed not by the individual but collectively, or intersubjectively by the community" (*ibid.*: 256). Nevertheless, private spaces have also their own role and users tend to prefer having their own private places where they can refugee and have their own personal moments within this shared virtual world.

Frias (2010), on the other hand, studied the Portuguese Community within this virtual world in order to verify how the virtual space is being settled through the constitution of new cultural and communicational paradigms. The analysis of this community revealed that the Portuguese users are becoming organized through the 'metaphorical colonization' of the in-world territory. Frias proposes that this community is reconfiguring the digital

space through the organization of 'national groups' which are settling different virtual places and inscribing them with identity marks imported from first life − the Portuguese language and the recreation of heritage sites are among the most prominent elements.

Rodney Harrison in 'Excavating *Second Life*: Cyber-Archaeologies, Heritage and Virtual Communities' (2009) offers a complementary perspective on the role performed by heritage sites. The author presents a conceptualization of 'cyber-archaeology' as a tool to study the virtual material culture of *Second Life* and suggests that despite "the functions of heritage in virtual settlements may be far more limited than in the actual world" (*ibid.*: 75), it has a double function, it is a structure of governance and produces a sense of community (*Second Life* own memorials), and it is a way of players to bring a piece of their first lives into this virtual world (representation of first life heritage sites). Due to the importance of heritage sites in *Second Life*'s landscape this element will be further explored in the following sub-chapter.

Heritage sites are among the categories of *Second Life* locations that residents develop the most.[114] From the representation of in-world own history to the representation of first life city's areas and neighborhoods to specific monuments taken off their actual spatial context, it is possible to find a wide variety of memory sites within this virtual environment. In the following section the role of *Second Life* as a technology of memory will be addressed having as central element the production and mediation of social memories through the 'virtualization' of heritage sites, in order to better understand how players are transforming space into places or representational spaces.

2.2.1. Heritage and the Making of a Shared Virtual World

Individual and collective memories are maintained and shared most of the times through technologies of memory. These technologies allow to keep records of the past and to develop practices of remembering that are crucial for the preservation of collective

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[114] The category of 'Real Life' is the seventh among those with more destinations. The top ten is composed of 'Fashion & Style' (425), 'Music' (202), 'Role-Playing Communities' (124), 'Art' (104), 'Home & Garden' (100), 'Nature & Parks' (79), 'Real Life' (68), 'Education & Nonprofits' (67), 'Romance' (62) and 'Help & How To' (58). Representations of heritage sites constitute the main theme of 'Real Life' destinations, but these are also available in other categories, such as 'Memorials', 'Castles & Ruins' and 'Nature & Parks'.

memories. They are also one of the primary means to generalize a memory inside a group contributing to its cultural identity: "Cultural and individual memory are constantly produced through, and mediated by, the technologies of memory" (Sturken, 2008: 75). The rise of new media led to the emergence of new forms of perpetuating social memories, to new "social-technical practices of memory-making and memory retrieval" (Van House & Churchill, 2008: 296). After photography, cinema and television, the internet is one of the new media that has a very significant role as a technology of memory. Through this new medium users are exploring new ways of recording and conserving memories: "our collective and personal memories are rapidly becoming digital. The internet is a growing ocean of information from all kinds of sources of all kinds in all formats" (*ibid*.: 299). Virtual reproductions of heritage sites and artifacts are becoming a new media for the preservation of memory. The most appealing way to create these virtual representations seem not to be through websites and static digital reproductions anymore, but through 3D models that allow us to reproduce detailed heritage sites.

Heritage sites are one of the means that allow sharing collective memories. These assume a very important role in a society's public sphere, once they reflect its ideas of identity, politics, community and nation: "the ordering of memory around sites of collective remembrance provides a focus for the performance of rituals of communal remembrance and sometimes forgetfulness" (Johnson, 2002: 294). These spaces of remembrance are what Pierre Nora had defined as *lieux de mémoire* – sites of memory, spaces that are no longer real environments of memory, but a representation of an event that belongs to a national identity (cf. Nora, 1989). According to Pierre Nora in order to a monument be considered a *lieux de mémoire* (site of memory) it must evolve from history to memory, from history to cultural production and construction, from history to narrative. These narratives are "mediated cultural and personal traces of the past" (Sturken, 2008: 74) and reflect the importance of heritage for the consolidation of 'imagined communities' (Anderson, 1999 [1983]).

Heritage may subsequently be understood as "a cultural process that engages with acts of remembering that work to create ways to understand and engage with the present, and the sites themselves are cultural tools that can facilitate, but are not necessarily vital for, this process" (Smith, 2006: 44). The site is important but does not limit heritage affordances,

once heritage is formed through parallel discourses (*ibidem*) – heritage as experience, identity, memory, and performance. The dominant discourse of heritage excludes the role that the majority of social actors may have in engaging with these memory sites:

> Not only does this discourse frame heritage audiences as passive receptors of the authorized meaning of heritage, it also creates significant barriers for active public negotiation about the meaning and nature of heritage, and the social and cultural roles that it may play. (*Ibidem*)

The first digital historical reconstruction created with computer graphics was developed in the 1980s in a project on the Roman Baths in Caerleon, Wales (Champion and Dave, 2007: 333; Woodwark, 1991: 18-20). Since then the number of projects grew and the techniques used evolved hand in hand with computer's graphics capacities (Champion and Dave, 2007; Forte and Sillioti, 1996). With the generalized access to internet platforms and technologies the 'appropriation' of heritage sites by internet users is becoming evident, reflecting a shift in the paradigm to understand heritage – within cyberspace is possible to appropriate *lieux de mémoire* that are traditionally conserved by official organizations. Cyberspace, particularly through 3D virtual worlds, allows a more interactive relationship with heritage and to give these cultural places a global dimension free of spatial constraints. Since the traditional discourse does not reflect this new reality, it is necessary to rethink heritage as being able to be appropriated and remediated through new technologies.

The virtualization of heritage sites adds another layer to the collective memory narrative. A layer characterized not by the material aspect of the monuments, but by its potential to gain a global dimension and be part of our "hybrid memorial-media culture" (Huyssen, 1995: 255). I consider that by being based on *prodused* content *Second Life* may be seen as a prominent technology of memory. Through the observation of its contents became evident that heritage is one of the elements people 'import' most to this virtual social space, making *Second Life* into a virtual settlement – a place where imaginary meets 'reality' (Bartle, 2004: 1). Virtual settlements are other dimension of heritage conservation, and within *Second Life* this seems to be an activity chosen by numerous residents, in the majority of the cases through cooperative groups. Reflecting upon the development of heritage sites in *Second Life*, Harrison (2009) suggests that the possibility offered by this

virtual world of representing heritage from the first life in virtual spaces is contributing to a change in the relationship established with these sites.

There are different heritage destinations within *Second Life* organized in two main types – *Second Life* own heritage sites, and replicas or representations of 'actual' heritage places. Among both types are museums, commemorative monuments, historical buildings and artifacts. Some of *Second Life* heritage sites are: Governor Linden Mansion (see Figure 87), SL Historical Museum (see Figure 88), Beta Contributors Wall (see Figure 89), *Second Life*'s Wall of History (see Figure 90), and Great Wall of *Second Life*.

Figure 87: Governor Linden Mansion   **Figure 88: SL Historical Museum**
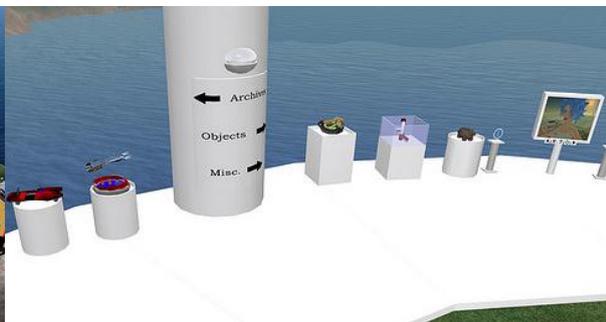
Figure 89: Beta Contributors Wall   **Figure 90: *Second Life*'s Wall of History**

Regarding the replicas they "range from attempts to build and render exact copies of real world heritage places, to fanciful recreations and commercial places using the theme of heritage to attract visitors" (Harrison, 2009: 106) (see Figures 91, 92 and 93).

Figure 91: Great Wall of China   **Figure 92: Mount Rushmore National Memorial**

115

Figure 93: Terra Egypta

Champion and Dave (2007: 336) consider that the major element that makes us remember a place is its atmosphere and not exactly the details of objects available at that place. Through the analysis of the visited destinations during the fieldwork – both locations related to in-world cultural identity and the representation of first lives ones, was possible to understand the role *prodused* spaces may have to the remediation of collective memories and to determine the main characteristics that make places and representational spaces within this virtual environment. According to Champion and Dave's classification, I suggest that the majority of heritage sites visited are in between activity-based and 'mild hermeneutic' places. The 'mild hermeneutic' ones may have different roles depending on the relationship establish with them. It was noticed that from visitors' point of view they may be considered representational spaces – spaces where a close relationship with territory is possible but the involvement may take some time and is not certain that personal meaning will ever be attached to them. These tend to be locations with medium levels of interactivity and complexity and where social activity is more restricted to members of the community, or where public spaces as coffee shops, gardens or esplanades are scarce. However, during observation stage it became evident that members of these communities had a different relationship with these settings, using these locations as meeting points, work places (offices, ateliers or shops, for instance) and for socialization. For them these locations seem to be understood as places and not only as representational spaces.

As in first life, the sense of place and belonging are very important to the relation established with the surroundings. *Second Life* as a technology of memory offers an immersive way to share cultural memories through the development of representational spaces and places: "Human memory may well be an anthropological given, but closely tied as it is to the ways a culture constructs and lives its temporality, the forms of memory will

116

take are invariably contingent and subject to change" (Huyssen, 1995: 2). Due to immersion the relationship established with these elements is narrower – it is possible to interact with geography, and particularly with heritage. Nevertheless, there is other characteristic intrinsic to virtual worlds, and particularly to *prodused* ones, they are fluid spaces in the sense that its geography is not permanent. As already seen the growth of *Second Life*'s territory is evident. The option of increasing the game area at the same rhythm populations grows contributes to this, but there are more factors. Players' commitment with the digital life is a choice, and as well as they can buy and develop spaces into places, they also are able to transform places in non-places or even in 'missing destinations'. In the following chapter this phenomenon will be addressed and a proposal to the understanding of *Second Life* as a virtual world where the geography is fluid will be presented.

2.3. Fluid Geography

Geography is one of the elements that set our boundaries as citizens of a certain nation-state and of our spheres of action. Geography has been a key element for spatial and social evolution since ever. Nevertheless the role this element has played during time was different according to the different population realities. For the first time we consider ourselves able to manipulate geographical boundaries and new technologies of communication and information have a major role in extending human capabilities beyond geographic horizons. Due to the possibilities offered by digital communication a different relationship with geography may be established. Physical boundaries do not constraint what is reachable anymore, and internet and mobile communication devices are contributing to the 'dematerialization' of distance. With the rise of Web 2.0 the opportunity to surpass geographical constraints was reinforced and users were given the opportunity to build (or co-build) their own worlds where they can interact and collaborate with people from all over the world. Nevertheless, people attribute geographical recognizable characteristics to these digital environments, as seen in the analysis of *Second Life*'s geography. But virtual worlds have a volatile and fluid geography; permanence is not an intrinsic characteristic of these settings and in the case of co-generated spaces this fluidity is even more evident. The previous chapter was focused on the relationship users

establish with territory and how they are contributing to world's development through *prodused* space narratives. The current will further explore this relationship aiming to understand not only how space is perceived, but also how places are transformed in non-places and/or 'missing destinations', and how this influences the emergence of a fluid territory.

As happens in first life, mapping the territory is a way to control and perceive it. Mapping and cartography contribute to a 'planetary consciousness' (Pratt, 1992), and "provide the very conditions of possibility for the world we inhabit and the subjects we become" (Pickles, 2004: 5). In *Second Life* there are two types of maps – world-map and mini-map, and both are valuable tools for in-world orientation. Mini-map gives access to a compressed visualization of current location; it is useful to have notion of the surroundings and to locate other avatars. Avatars are represented by green dots and besides recognizing the higher concentration of them, through the mini-map we can teleport to the available nearest location. This functionality is very important because the most popular destinations use to be those most requested by users, that prefer places where they can find other avatars, once the possibility of interaction and socialization increases. The tactics of 'following the green dots' is one of the most common in *Second Life* and through it several in-world places become lively (Au, 2008; Boellstorff, 2008). In order to launch or maintain a popular place, owners often recur to the strategy of keeping their destinations busy, and visible through population density. As 'following the green dot' is a common way for deciding which destination to choose, keeping people in certain locations is key. One of the most common ways to achieve that is through camping; there are different possibilities regarding camping and land or business owners make use of them creatively. For instance, avatars get paid for dancing in night clubs, sit at bars or by publicizing stores. Paying low amounts of money for having avatars performing some specific activity in strategic places is a common way to maintain it hype. As camping is an easy way to make some money a lot of people look for this activity; as much fun and amusing the site of camping the better – not only campers tend to stay more time, as 'green dot followers' avoid getting disappointed.

Regarding the world-map tool, this gives a representation of the world as a whole in an aerial top-down perspective. Players may decide on the perspective zoom degree, the

minimum zoom show the world as a whole (the world is so wide that in order to recognize the whole map we need to scroll horizontally), and the maximum is region centered perspective, where is possible to see region's topography, areas and number and location of visitors (through the same system of 'green dots'). There are some features incorporated in world-map like direct teleportation for chosen places, 'filters' to control the visible information and destinations' search engine. Both mapping tools besides the traditional representation of territory, play also the role of 'wayfinding' (Pile and Thrift, 1995), as they contribute to the process of "visiting in turn all, or most, of the positions one takes to constitute the field… [covering] descriptively as much of the terrain as possible, exploring it on foot rather than looking down at it from an airplane" (Mathy, 1993: 15 *apud* Pile and Thrift, 1995: 1). They allow players to move within different regions and toward different destinations.

I suggest that the described tools play a very important role in the relationship established with territory. Mapping is a way for *Second Life* users perceive the virtual world as a whole and to materialize it despite its digital condition. Additionally to its role as "geographical conquest of 'empty space'" (Gil and Duarte, 2011: 1), mapping also attenuates the 'dematerialization' of space that occurs through the use of teleportation as primary mean of transportation. Teleportation is "figurative negation of real space" (Aarseth, 2007: 45), and is a functionality that contributes to the non-perception of space. Mapping in *Second Life* attenuates the impact of this functionality that apart from being a comfortable mean of transportation, contributes to the transformation of places and representational spaces in non-places and 'missing destinations' that characterize in-world's territory fluidity. By picking destinations from the highly populate locations visible through world-map, many others are ignored, and public areas[115] after being abandoned tend to disappear.

Second Life territory is compound by continents and islands, and as seen before islands are not connected to Mainland so in order to visit them the best mean of transportation is teleportation. However, as teleport suppress the notion of spatial distance and boundaries, it may contribute to the transformation of places into non-places: "if a place can be defined as relational, historical and concerned with identity, then a space which can not be defined

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[115] By public areas are meant all open areas, those which are not private and/or with controlled access.

as relational, or historical, or concerned with identity will be a non-place" (Augé, 1997 [1992]: 76/77). Non-places are places where people go when they are in transit; they are spaces of flows that are not part from visitors lives, they have an operational role. In *Second Life* all those locations where there is no one and where there is few to do may be considered non-places. The surroundings of these locations tend to be just a scenario in the traditional sense, and not an interactive stage prepared for action. In these non-places is difficult to create individual stories, because interaction possibilities with other players or the setting are scarce. Nevertheless, these destinations exist, and the probability to find them in searches and explorations is not that low. Among the observed locations there were not many non-places, but during the auto-netnographic stage several of them were visited. From the netnographic experience was concluded that the transformation of non-places into 'missing destinations' may take a short period of time. By 'missing destinations' are intended all those destinations that disappear from world-map and that are no longer viable options. Locations that simply vanished from the virtual world without leaving any trace, as Longwood Gay Community & Shopping, Second Louvre Museum, Zero Point, The Holocaust Museum, Terra.mellifera, Cirque Mystique, and Zai-Gear. In order to understand in-world territory dynamics I would like to argue that is necessary to characterize it as being fluid, in the sense of Gil and Duarte's proposal of fluid cartographies to perceive modernity's geographical dynamics (2011).

Isabel Gil and João Ferreira Duarte (2011) in their 'Introduction: Modernity's Fluid Cartography' propose that in order to recognize the fluid globality of the modern world we need a new understanding of space, space not as a passive entity. This new perception of space led to a different conception of cartography, a fluid one that "addresses the fluid disengagement of the modern world, the diasporic displacements and the complex changes that mark the transitive and transitional reality of modernity" (3). A fluid cartography that identifies territory as a space of flows and not of fixity of identities and cultures:

> A fluid cartography, then, perceives the territory as an emerging surface where charting is equated with inscribing and translating, where different identities, times and locations come together. Yet, despite the passion for flux and transition, fluid cartography does not blur distinction, nor does it naturalize the fluid mobility of late modernity. (*Ibidem*)

I propose that by being a work in progress *Second Life* offers residents and visitors a fluid landscape. Not only are the destinations available not rigid, as its contents and geographic elements may be subject to changes. Within this virtual world space is constantly coded and recoded while players appropriate the virtual territory. Despite needing geographic elements to turn these spaces palpable, players seem to enjoy its lack of stiffness. In an ever changing world orientation gains new meanings and maps new roles. Linden Lab has a relevant role in updating in-world map tools, as well as destinations guide. They tend not to interfere with territory fluidity. As *Second Life* is running for nine years always centered in *prodused* content, Linden Lab already knows that when a location goes missing, several others will rise. Nevertheless, there was one particular case that counted with Linden Lab's interference – Svarga. As it was a highly complex and interesting artificial life's project, when its creator decided that he was no longer able to maintain it and the best option was to sell the region. Linden Lab bought it, and reopened it few months later, maintaining all its characteristics and making sure that visitors learn its history.

Due to the fact that *Second Life* is a fluid user co-created world, it and its territory may be considered as being a heterotopia, following Foucault's proposal regarding the development of utopias and heterotopias as alternative spaces that exist within 'common places'. According to Foucault both utopias and heterotopias are spaces constituted in parallel to the 'traditional spaces' and "which are in rapport in some way with all the others, and yet contradict them" (Foucault, 1997: 352). Utopias are ideal spaces and as so "are by their very essence fundamentally unreal" (*Ibidem*). Heterotopias, on the other hand, are "places which are absolutely other with respect to all the arrangements that they reflect and of which they speak" (*Ibidem*). These are places without place, as *Second Life* is a place without a physical existence. Despite not referring to virtual worlds, I consider that the binomial utopias/heterotopias proposed by Foucault is helpful to the understanding of spatiality and 'placeness' in these environments. Due to its immateriality its territory may be much more fluid, and evolve hand in hand with *prodused* space narratives. These narratives are developed along with self-representational ones, and are part of players' identities. Contrary to first life reality – a life determined by biological and social elements over which we have almost no control, second life is totally controlled by players. They decide who they want to be, and in this particular virtual world where they want to live and what they want to do. It is like having a parallel existence where almost all variables are

controllable. Nevertheless, this alternative reality seems to mirror the non-digital one, and as a mirror it

> functions as a heterotopia, since it makes the place that I occupy, whenever I look at myself in the glass, both absolutely real-it is in fact linked to all the surrounding space-and absolutely unreal, for in order to be perceived it has of necessity to pass that virtual point that is situated down there. (*Ibidem*)

After analyzing the geographical impact of *prodused* space narratives regarding territory organization, in the next sub-chapter population stratification will be explored. Few years after its launch *Second Life* emerged as a class society. Its society stratification may be understood through its history, and also through in-world interaction observation. In the following sub-chapter – 'Population Stratification – The Emergence of a Class Society' the goal will be to understand how classes emerged and what are the different roles performed by players.

2.4. Population Stratification – The Emergence of a Class Society

The organization of *Second Life*'s society also occurred through space narratives. Along with space colonization users felt the need to be organized in order to fight for common rights. The first demonstrations led to the stratification of in-world's society. Being land such an important element to the development of this virtual world, it is expectable that population get organized around it.

Second Life's population is highly heterogeneous due to the possibilities offered to players. The 'traditional' classification of players of multi-user dungeons proposed by Richard Bartle (2003) divides them in Achievers, Explorers, Socializers and Killers. This taxonomy was elaborated upon the four things players preferred most about MUDs:[116] achievement within the game context, exploration of the game, socializing with others, and imposition upon others (Bartle, 2003: 397). These categories are not mutually exclusive and players can be part of each of them depending of their game style. Game style is closely related to

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[116] Multi-User Dungeons were text-based virtual worlds that contributed to a turn in video games development history. These rudimentary virtual environments revolutionized the history of entertainment by being able to bring together players from all over the world in a shared virtual environment, within which they could perform several roles.

players' mood and wills, during play-time players tend to develop a main playing style that ends by being prevalent in almost all game situations. Achievers aim to achieve the different game goals they set for themselves – be it points collecting, avatar improving, or having the higher quantity of artifacts. Explorers focus on world knowing, geographically and "delight in having the game expose its internal machinations to them" (*ibid.*, 398). They invest time and money in deeply knowing the virtual environment. Socializers focus their attention in meeting other avatars and in talking and hanging out with them; their goal is to socialize. Killers, on the other hand, look for imposing themselves to others; what can be done in a friendly or unfriendly way. Killers are those already referred to as griefers, and "the more massive the distress caused, the greater the killer's joy at having caused it" (*ibid.*: 399). According to this classification achievers and explorers have a close relationship with the world, and socializers and killers with other players.

Having this taxonomy as reference, during the netnographic research an additional objective was to understand how population was organized in *Second Life*. Not having *a priori* playing categories as happens in the majority of gaming environments makes it more difficult to identify players' classes within the game space. Despite the difficulty in delimiting them, the existence of classes is obvious. After spending a considerable amount of time in-world it became clear that as in first life social classes are organized around propriety, wealth and power. The ruling class is known as 'The Lindens', all the avatars with Linden as surname are representatives of the company in-world. Despite having an important role representing the maximum authority of this virtual environment, they seem not the most worthy class to explore once their visibility in in-world's daily life is very smooth. The 'working class' is the most active of the existent social classes. I suggest that its members are all citizens that perform roles of Creators or Landowners. According to their social roles they have different goals to their second lives: Creators contribute to world's contents development – being architectural, current objects or cultural contents; and Landowners invest in real-estate and in spatial development. Both of them have a close relationship with territory and actively contribute to *Second Life* expansion. Within each of these categories there are hierarchies organized around intensity of participation. Some of these residents became professionally successful in first and second lives due to their contribution to in-world's development. Among the most popular

residents are artists as Dancoyote Antonelli,[117] specialized in interactive artwork and live performance; the businesswoman Anshe Chung,[118] a real-estate investor and first *Second Life* millionaire, who have appeared in the cover of *Business Week* in 2006;[119] newcomers helper Brace Coral[120], founder of New Citizens Incorporated; the furry Arito Cotton,[121] considered to have been the first furry of *Second Life*, and one of the founders of Luskwood; the hostess Jenna Fairplay,[122] owner of the most popular night clubs; the newspaper publisher Katt Kongo,[123] owner of *Metaverse Messenger* one of the first well succeeded in-world newspapers; Torley Linden,[124] also known as Torley Torgeson before joining Linden Lab, a adored *Second Life* resident with admirable social skills – reason for being invited to join Linden Lab; the virtual world archivist Eggy Lippman,[125] responsible for collecting information about in-world's development and publishing it in *Second Life History Wiki*;[126] Gwyneth Llewelyn,[127] co-founder of the self-governed Neufreistadt democratic community, and author of a blog about culture and technology within *Second Life*; Catherine Omega[128] a resident specialized in Linden Scripting Language; the fashion designer Nephilaine Protagonist,[129] owner of the Pixel Dolls Boutiques and one of most famous in-world *fashionistas*; YadNi Monde,[130] owner of several popular in-world locations, including the freebie store YadNi's Junkyard; and Aimee Weber[131] a well-known content creator, founder of Midnight City. Being a Creator or a Landowner is seen by the majority of residents as a way to being successful, nevertheless it is not an easy path to take, requiring time and money investment, and mainly an original idea to pursue. I consider that besides the 'working class' organized around two different types of residents – Creators and Landowners, there is another recognizable social class – Tourists. Tourists are all that may or may not own a small plot of land, but do not actively contribute to in-

[117] More information available at http://www.dancoyote.com/.

[118] More information available at http://www.anshechung.com/.

[119] http://www.businessweek.com/magazine/content/06_18/b3982002.htm.

[120] More information available at http://brace-coral.livejournal.com/.

[121] More information available at http://arito.livejournal.com/profile.

[122] More information available at player's profile in the social networking site *Facebook*: http://www.facebook.com/people/Jenna-Fairplay/100000132258955.

[123] More information available at http://metaversemessenger.com/source/katt-kongo.

[124] More information available at http://wiki.secondlife.com/wiki/Torley.

[125] More information available at http://secondlife.wikia.com/wiki/Eggy_Lippmann.

[126] http://www.wikia.com/Wikia.

[127] More information available at http://gwynethllewelyn.net/.

[128] More information available at http://www.catherineomega.com.

[129] More information available at http://secondlife.wikia.com/wiki/Nephilaine_Protagonist.

[130] More information in YadNi's blog, at http://yadni.blogspot.com/.

[131] More information available at http://www.aimeeweber.com/.

world's development. Among Tourists there are the frequent and the curious ones. The frequent despite not being engaged with world creation are part of the virtual society; they can be organized in two groups – Griefers and *Flâneurs*. Among the curious are all visitors that from time to time spend some time within *Second Life*. Griefers were already presented in a previous chapter; they are all players whose goal is to harass other avatars, in order to rob or kill them, or just for fun. Usually Griefers know the territory well and know how to manipulate objects in order to cause disorder. *Flâneurs*[132] are those residents that meander throughout the world, know many different locations and tend to socialize everywhere they go, sharing experiences. This is the prominent social class in *Second Life* once it is the one with the higher number of members.

Going back to Bartle's taxonomy, it may be considered that within *Second Life* Achievers are related with Creators and Landowners, Explorers and Socializers with *Flâneurs*, and Killers with Griefers. The decision to include world exploration and socialization within the same social category was based on the fact that both activities are often performed by the same residents. 'The Lindens' remain in a separate category related with ruling power, and are not classified by their style of play. All these categories were set regarding the relationship established with territory, since *prodused* space narratives conduct to the performance of different roles within *Second Life*'s society. By the end of this research research-avatar may be considered as being part of *Flâneurs*. Time was invested in virtual world exploration, many different locations have been visited, and people performing different roles and from different origins was met.

I would like to suggest that population organization in *Second Life* goes much beyond the organization of groups and/or communities. Groups and communities play a major role as will be seen in Part II, but these are traditional outcomes from social interaction – people with the same interests and goals tend to get organized in order to cooperate towards a common end. This first perspective aims at analyzing *Second Life*'s society as a 'united whole' instead of a 'patchworked' one; beyond communities are a society organized around the co-development of the virtual world, and this is a unique feature of this virtual world. Around the possibility of owning and developing territory, players transform

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[132] Charles Baudelaire is considered the 'father' of the *flâneurie*, since its characterization of *flâneur* attributed the expression an additional meaning – the city stroller, one that knows the city really well and wanders easily through its streets, someone that is part of the crowd.

themselves in entrepreneurs and creators, attributing a new meaning to what may be defined as a virtual world – a digital world made palpable through collaboration and interaction among Linden Lab and players.

III. The World – Some Concluding Remarks

The first part of this research was centered in getting to know 'The World'. The goal was to characterize *Second Life* as a game platform and as a virtual world. Regarding its characteristics as game platform the intention was to present their central tools and to describe the essential procedures to get used to having an avatar. I consider that this reflection was crucial to characterize the research object, and to set the intended path for the first part of this research – to characterize *Second Life* from the point of view of its geographic condition. This was done in two distinct ways; the first, compound by chapter I and respective sub-chapters, looked forward characterizing *Second Life*'s territory (space of action), population (users) and social organization. The starting point for territory analysis was to understand which are the platform's intrinsic characteristics and how it is organized; elements such as grid, regions, continents and islands were characterized. Regarding its population a detailed description was presented showing how avatars – users' virtual representations in the digital environment, are created and what means to be part of in-world's population. In order to complete the analysis statistical data on *Second Life*'s demographics were collected and explored; through these data it was realized that the freedom to be a proprietor and creator are among the most valuable features offered by this virtual environment. In order to describe and reflect upon social structure, in-world's organization was compared to the formation of the middle class in the 19th Century; the analysis began with massive multiplayer online games politics history, and compared its maturation process with *Second Life*'s one. Throughout that sub-chapter were described some important episodes of *Second Life*'s history aiming to illustrate its development and how players and Linden Lab have been negotiating the standards of virtual life.

The second chapter – 'Exploring the Virtual World', led to a deeper analysis of geographic elements. This chapter was one of the outputs of the netnographic research, and resulted from the combination of the experience lived as a player (auto-netnography) with the analysis of the data collected during participant observation. In the first sub-chapter were briefly presented the 64 visited locations during observation stage. I consider that describing the different destinations allowed a closer look of *Second Life*'s world, and to understand what is in fact a user-created world. The exploration of several locations, some in continental areas, but the majority being islands, helped to better understand space

dynamics within this virtual environment. After portraying the 64 destinations, in the second sub-chapter was examined the formation of *prodused* space narratives that contribute to the transformation of space into place within this digital world. Those narratives make clear how important is territory and propriety to *Second Life*'s development – players invest in land because they hold the intellectual rights of everything they create, and owning land allow them to develop it and to build whatever they want within their land plot. To a better understanding of the role played by land and territory, I proposed an analysis of heritage sites not only as a connection point between first and second lives, but also between residents. Intrinsic and extrinsic heritage sites – meaning those that are part of *Second Life*'s own history and those players import from their first lives, are considered to be helpful research objects to comprehend the relationship players established with territory. Those places have a double role; they represent the importance of sharing cultural memories as the 'glue' of a virtual society, and at the same time they make the digital world more palpable through the existence of identifiable remembrance places. The third and fourth sub-chapters were focused on two direct outcomes of *prodused* space narratives – the fluidity of *Second Life*'s geography, and the class stratification of population. In 'Fluid Geography' attention was paid to how space is perceived and to the importance of mapping tools in an ever-growing virtual world. It was argued that uncertainty is one of the characteristics of *Second Life*'s geography, space is not a fixed entity and places may be rapidly transformed in non-places and/or 'missing destinations'. The fluidness of territory reflect users use of the space, because despite setting some boundaries, geographic elements within this virtual environment play a different role, they are adaptable to users' needs and wishes. In 'Population Stratification – The Emergence of a Class Society' was presented a proposal to classify the different social classes existent in-world. This proposal was centered in Bartle's MUDs players' categories definition, but adapted to the reality of this specific virtual environment. The conclusion reached was that society is organized in three main classes – 'The Lindens', representing the ruling power, Citizens, divided in Creators and Landowners, and Tourists – divided in Frequent and Curious, being the Frequent subdivided in Griefers and *Flâneurs*. The members of each class have their own role in world's development. The most popular class seems to be the Citizens one once they represent power and influence, and are respected by other players, and also by Linden Lab. *Flâneurs*, on the other hand, is the most prominent class regarding

the number of representatives. This division led to conclude that as happens with the greater part of Web 2.0 platforms, the majority of users are not direct producers, but enjoy consuming what peers create; creators are then a minority, but usually a very ingenious one.

The main ideas presented in this first part of this research are, then, related with the essence of *Second Life*'s geography. *Second Life* was presented as an alternative dimension for human interaction, where players may choose how they look like, which social roles they perform, and what is the meaning of being a resident of this virtual environment. Despite being considered as a massive multiplayer social game, *Second Life* seems more than a game. Players perform very significant social roles and the result is a co-created virtual environment, where players are transforming virtual space into places, featuring space constituted by bits and bytes with spatial social dynamics. Through *prodused* space narratives *Second Life* emerges as a heterotopia to its users and its dematerialized reality gains social and cultural meaning. Within this 'heterotopic' space players organize themselves around the relationship established with territory; there are those who control the game space – 'The Lindens', those who contribute to world's development – Citizens, and those who explore and enjoy what others had created – Tourists.

After examining world's geography, the following part – 'Cultural Identity in *Second Life*', will be centered on *Second Life*'s human dimension. The goal is to understand the impact that this alternative social space might have in users' identity remediation. The starting point for this analysis is the assumption that the beginning of a migration itinerary directed to cyberspace is being witnessed. This movement has its own characteristics and, as Edward Castronova, advocates it needs its own designation – *continuous migration*: "We should call the old-style migration, which was one-way, 'discrete migration'. The new-style migration, which is back and forth, fluid, should be called 'continuous migration'" (Castronova, 2007: 71). Organized around key-concepts as virtual self-representation, embodiment, self-representational digital narratives, and identity remediation the main goal of Part II is to identify how users are developing self-representational narratives, and which are the main elements of those narratives. During the netnographic research several avatars were interviewed aiming to understand the meaning that having a second life have for them. The results of the analysis of these conversations will be presented hand in hand

with some theoretical considerations on the identity remediation process that occurs through the development of an online persona.

PART II: CULTURAL IDENTITY IN *SECOND LIFE*

I. Cyberspace and Identity

> Did you know that the first Matrix was designed to be a perfect human world? Where none suffered, where everyone would be happy. It was a disaster. No one would accept the program. Entire crops were lost. Some believed we lacked the programming language to describe your perfect world. But I believe that, as a species, human beings define their reality through suffering and misery. The perfect world was a dream that your primitive cerebrum kept trying to wake up from. Which is why the Matrix was redesigned to this: the peak of your civilization.[133]

(Wachowski and Wachowski, 1999)

The *Matrix* is an archetype of virtual reality possibilities. Within the Matrix we can be whoever we want to be, or who we have been programmed to be. Plugging in connects humans to the virtual reality. Despite the embodiment with a virtual version of the human body, the simultaneous disembodiment allows 'travelers' to be free from biological constraints. The way they see themselves within this virtual reality results from their own self-representation – the mind controls the body and this control is remediated through computers. Appearance and skills are controlled by the humans connected to the Matrix; once inside the virtual dimension they may assume the appearance they want and decide which best skills fit their needs when facing challenging situations. Nevertheless, to learn new skills or abilities such as piloting a helicopter or martial arts, for instance, someone outside the Matrix needs to upload into the brain of those who are immersed the information in scripting program language. To improve one's avatar then is a matter of uploading information; the learning process is immediate. In this alternative reality self-representation gains a new meaning, and contrary to traditional forms of self-representation like statues or portraits, in this case physical similarities are not exactly what are looked for, but new affordances. In *The Matrix* trilogy the possibility of exploring new skills and capacities – that are the result of the mixing of human and technology, is one of the movies' central themes, and is one of the most intriguing aspects to viewers, particularly to those who enjoy science-fiction narratives and the quest for an alternative dimension for their lives.

Exploring new possibilities for presenting oneself and interacting with others also seems to be one of the internet features that is most looked for. From the first multiuser online

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[133] Agent Smith's explaining to Morpheus the Matrix history.

environments, to the possibility of gathering millions of people in a shared digital space, the way users interact through technological devices is characterized by anonymity, flexibility and freedom (Rheingold, 1992 [1991], 1993; Taylor, 1999; Turkle, 1995). In cyberspace users can be whoever they want, they develop their own digital being that represents them within this dematerialized dimension, and they may create not only their self-representational narratives, but nowadays in the great majority of platforms, users are even responsible for what they look like – for the creation of their own digital bodies. Cyberspace, due to its intrinsic characteristics, is considered a fertile ground for identity research and has been one of the main themes of research regarding interaction in virtual environments. Howard Rheingold (1992 [1991], 1993) and Sherry Turkle (1984, 1995) are authors of the most influential early research works on cyberspace and the relationship established between user and technology. Rheingold was one of the first scholars to conceptualize a new dimension for human interaction – the virtual reality. In his seminal work – *Virtual Reality* (1992 [1991]), cyberspace is presented as the result of a revolutionary technology that immerses users in computer-generated worlds where "reality itself might become a manufactured and metered commodity" (17). Within this digital dimension users need to learn how to behave and interact with space and other users, who may be from any part of the world. The interaction among users was the theme of Rheingold's second book on the subject – *The Virtual Community* (1993); the question of identity in cyberspace is explored deeply here and the relationships set among users a central topic. Rheingold shares his experience in the online community WELL (between 1985 and 1993), and how this community was built over the years, despite only existing online:

> an entire cast of characters welcomed me to the troupe with great merriment as soon as I found the secret door. Like others who fell into the WELL, I soon discovered that I was audience, performer, and scriptwriter, along with my companions, in an ongoing improvisation. A full-scale subculture was growing on the other side of my telephone jack, and they invited me to help create something new. (2)

The negotiation of identity in individual and collective ways is characterized as a very relevant aspect of online interaction, since the boundaries of identity may be dissolved in cyberspace. A 'new identity' is then developed according to the new social space, and through the interaction with other users. Even before Rheingold's *Virtual Reality*, Sherry Turkle introduced the idea that computers are not just tools for work, but also for exploring

oneself. In *The Second Self* (1984) Turkle developed this topic and in the subsequent *Life on the Screen* (1995), this time focusing on online game worlds known as MUDs – Multi-User Dungeons. *Life on the Screen* became an influential study of the relationship between identity construction and networked technologies. Turkle argues that identity changes in virtual environments, it becomes fluid and fragmented, mainly due to the possibility of being anonymous: "when we step through the screen into virtual communities, we reconstruct our identities on the other side of the looking glass" (Turkle, 1995: 178).

These early studies led to several others, and identity is among the most researched topics regarding cyberspace in general, and in virtual worlds in particular. By the end of the 1990s and beginning of the 2000s the impact of cyberspace in users' identities was analyzed through different perspectives. In 1998 Annette Markham published *Life Online: Researching Real Experience in Virtual Space*, a study resulting from an ethnographic experience conducted online. One of the main conclusions of Markham's research was the importance of being embodied for a full understanding of online identities, since interaction in cyberspace is a unique experience not only due to the possibility of remaining anonymous, but also because interaction occurs in 'dematerialized' locations where users have to communicate through the available tools. Cyberspace being a privileged space to experiment with identity, it is also important to understand the role this mediated dimension has in reshaping individual and collective narratives. The potential of computers and cyberspace for digital storytelling and the emergence of immersive narratives were proposed by Janet Murray (1999 [1997]) as being one of the most important outcomes of the digital revolution. But besides researchers, it was also considered that users should recognize cyberspace's potential for reinventing themselves. In order to help users better understand identity online a research team from Georgia Institute of Technology developed and made available online *The Turing Game* (Berman and Bruckman, 2001).[134] Frequent internet users were invited to pretend to be part of certain communities and to perform accordingly to defined roles related to gender, race, or other cultural markers:

> Here at the Georgia Institute of Technology, we have created a game to help us understand issues of online identity. In this environment, which we call *The Turing*

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[134] Despite being already closed, the website were was possible to play The Turing Game still offers information regarding this research – http://www.cc.gatech.edu/elc/turing/.

Game, a panel of users all pretend[ing] to be a member of some group, such as women. Some of the users, who are women, are trying to prove that fact to their audience. Others are men, trying to masquerade as women. An audience of both genders tries to discover whom the imposters are, by asking questions and analyzing the panel members' answers. Games can cover aspects of gender, race, or any other cultural marker of the users' choice. Currently, we have a working version and we are in the Beta testing phase.[135]

Through this experiment researchers concluded that online identities are more diverse than offline ones, and that users look to try alternative identities. However, these identities may not represent a total shift from offline identities but represent a continuum between off and online (Bell, 2001; Kennedy, 2006; Miller and Arnold, 2001). Online interaction is shaped by the acknowledgement of anonymity (Cheung, 2000) and of a different understanding of trust (Donath, 1999). Online identities are also shaped by the media used to 'inhabit' cyberspace, and as Kang and Yang (2006) suggest despite gender and age play a significant moderation effect, users establish different relationships with their virtual representations according to the features and possibilities offered by the different online media. Joseph Schmitz (1997), on the other hand, also offers an interesting perspective on the role of cyberspace in identity reconfiguration, through the analysis of the role performed by Santa Monica Public Electronic Network for the strengthening of collective identities. Santa Monica was the first city in the United States of America to develop a government-sponsored electronic communication system aiming at digitally connecting all residents, including homeless people. In order to narrow the relationship between residents and the city's officials three services were offered: (1) Bulletin Board texts posted by the City – read-only but searchable information; (2) an internal e-mail system between users and between users and city officials; and (3) electronic conferences that got users together around different common interests. Through the analysis of how homeless people took advantage of this network to discuss their primary needs, Schmitz proposes that community networks of this kind may contribute to a restructuring in the pattern of relationships within a community.

Identity research within virtual worlds was recognized since the beginning of these digital environments as an important dimension to better understand online identities. The possibilities offered to players concerning identity experimentation are more complex than

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[135] Game's presentation note available at http://www.cc.gatech.edu/elc/turing/info2_5.html (accessed January 2012).

the majority of other virtual social spaces. Research done on different virtual worlds has been mainly centered on narrative-based game worlds such as *World of Warcraft*, and *EverQuest* (see, for instance, Bainbridge, 2010b; Castronova, 2005; Taylor, 1999, 2002, 2006). Researching these complex online settings has shown that social structures are being remediated through these new media forms, and the relationship set between users and virtual representatives is of major importance (Kafai, Fields and Cook, 2010; Pearce, 2009; Schroeder, 2002, 2010; Schroeder and Axelsson, 2006; Yee, 2006a; Yee and Baleinson, 2007; Yee, Baleinson, and Ducheneaut, 2009). There is also some research on identity specifically in *Second Life*. Being a user-created virtual world makes *Second Life* an interesting case study, once here players develop their own avatar almost from scratch (Boellstorff, 2008; Harris, Bailenson, Nielsen, and Yee, 2009; Heider, 2009; Johnson, 2010; Kaplan and Haenlein, 2009; Meadows, 2008). Users are invited to take a 'standard' avatar and personalize it through the user-friendly built-in tools available, creating unique avatars; after creating their digital representations, it is necessary to define their role in-world, once there are no predefined roles.

I suggest that through the analysis of different perspectives on online identity it becomes clear that the dominant understanding of identity has been identity as a fluid entity that is reshaped and adjusted throughout virtual interaction (Turkle, 1995). As Taylor states "virtual environments without a doubt remain a space in which users are constantly creating and performing a variety of identities" (Taylor, 2006: 95). Nevertheless, there are also some critiques of this perspective worthy of mention, like the work developed by Lori Kendall (1999, 2002), Beth Kolko (2000), and Lisa Nakamura (1995, 2002, 2007), which shows that despite the freedom allotted by cyberspace there are some elements of first life's identity that tend to be extended to the virtual environment, the most evident being gender and race. The authors explored this extension particularly into online communities and text-based virtual worlds.

Before analyzing in-depth the 'question of identity' in *Second Life*, I consider that it is necessary to frame the conceptualization of identity upon which this research is based. Identity is considered one of the central topics to understanding contemporaneity. Identity discourses are characteristic of moments of crisis, as those lived in the 18th and 20th centuries, as well as the one we are living now. These crises have their intrinsic

characteristics and positions regarding identity: for instance, in the 18th century identity was deeply connected with the definition of Nation-State, in the 20th with the subaltern voices and in the 21st with the flows of people, information and commodities. These different moments will be briefly described in order to understand how identity is perceived in each of them.

The concept of the Nation-State was born within a territory characterized by lack of unification – the German Empire. It was deeply related with identity in a period when several reformations took place – the separation between State and the Catholic Church, and the end of feudal regimes. Facing these social changes the Nation-State emerges as a geopolitical and ethno-cultural entity, resulting from the combination of the State's political facet with the Nation's ethno-cultural one: within Nation-States citizens share not only a geographic territory, as well as a language, ethnicity, culture and values.[136] The crises of the 20th century questions in some way the Nation-State paradigm being concerned with post-colonial movements and the need of affirmation of 'subalternized' identities, not only of those from colonized territories, but also of women and minority groups. The crisis we are facing in the 21st century is almost a mix of both previous moments, and is a very complex one, involving almost all sectors of society and having impact throughout the world. In order not to deviate from the main concern regarding identity the characterization of this ongoing crisis will be restricted to its technological social context. In an era when information, collaboration and participation are a click away, collective cultural identities are changing as the sites for socio-cultural interaction are becoming globalized. This research is being conducted within a crisis framework and the understanding of identity will be shaped by the social and cultural values at stake.

I would like to propose that to understand the impact of digital technologies on cultural identities it is necessary to acknowledge the constitution of technological selves through the available new media technologies associated with internet development. To do so the existence of two main approaches to identity formation must be recognized (cf. Hall, 1990). The first sees cultural identity as something that is acquired and shared by members

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[136] Johann Gottfried von Herder argues that language is the main element for culture and the constitution of national characteristics. Language is understood as the main distinctive element of a nation. Herder was one of the first philosophers to propose that all cultural groups have their own identity, and that this identity is constituted around a common language. According to Herder all nations are developed around three shared elements: language, ethnicity, and territory (cf. Herder, 1986 [1772]).

of a certain culture but that is immutable; it remains the same throughout life time. The second, conversely, understands cultural identity as being in permanent adaptation, as a porous and permeable element that is enriched and shaped through different experiences. Following Hall's proposal, the current analysis will be framed within the second approach, once it is difficult to make sense of identity as a 'fixed' element in an era of globalized interaction:

> […] identities are never unified and, in late modern times, increasingly fragmented and fractured; never singular but multiply constructed across different, often intersecting and antagonistic, discourses, practices and positions. They are subject to a radical historicization, and are constantly in the process of change and transformation. (Hall, 1996: 4)

Identity then is understood not only as being permeable and ever-changing, but also as a form of belonging that results from an attempt of making sense of oneself (Spivak, 1993), and allows one to have an individual location in the world. Identities are discursive and constituted by and within historical and social discourses. The contemporaneity is characterized by flows,[137] to understand the post-modern subject becomes an even harder task and for some researchers the concept identity seems almost too fixed (Braidotti, 1994; Hall, 1996). Hall suggests the articulation of identity with identification, since identification is concerned with the "points of temporary attachment to the subject positions which discursive practices construct for us" (Hall, 1996: 19). Braidotti, on the other hand, settles upon the concept of 'nomadic subjects', "as a suitable theoretical figuration for contemporary subjectivity" (Braidotti, 1994: 1):

> The nomad is my own figuration of a situated, postmodern, culturally differentiated understanding of the subject in general and of the feminist subject in particular. This subject can also be described as postmodern/industrial/colonial, depending on one's locations. In so far as axes of differentiation such as class, race, ethnicity, gender, age, and others intersect and interact with each other in the constitution of subjectivity, the notion of nomad refers to the simultaneous occurrence of many of these at once. (4)

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[137] Contemporary flows should not be perceived as being homogenous since they occur under specific conditions. Arjun Appadurai (1996) suggests that "they occur in and through the growing disjunctures among ethnoscapes, technoscapes, financescapes, mediascapes, and ideoscapes" (37). The suffix 'scapes' was chosen to represent the flows of the modern world: ethnoscape – the landscape of persons who constitute the shifting world; mediascape – the distribution of electronic capabilities to produce and disseminate information as well as the images of the world created by these media; technoscape – the global configuration of technology; financescape – the landscape of global and fluid capital; and ideoscape – a 'scape' marked by the global master-narrative to understand and represent the world (cf. Appadurai: 1996).

'Nomadic subjects' represent the fluidity of contemporary lives; identity within these contexts results from ongoing acts of becoming – which the author refers to as the process of 'as-if',[138] and not from fixed and solid realities. According to Braidotti, these nomads do not necessarily travel the world; they can be nomads without physically moving from their homes. The nomadic state is achieved by subverting social conventions, and not literally by travelling – "nomadic becoming is neither reproduction nor just imitation, but rather emphatic proximity, intensive interconnectedness" (*ibid*.: 5). Being discursive and shaped by the different contexts of subjects' lives make identities fluid, but despite the ever changing nature of our 'liquid modernity' (Bauman, 2000) identities maintain their additional role as individual labels (Appiah, 2005):

> So labels operate to mold what we may call identification […] it seems right to call this 'identification' because the label plays a role in shaping the way the agent makes decisions about how to conduct a life, in the process of construction of one's identification. (65)

Despite being a highly mediated context, labels keep their central role in cyberspace, they are necessary to make sense of the digital surroundings, and as they do so in the non-digital dimension. These labels are highly influenced by self-presentation.

In order to further explore the question of identity in a particular type of digital environment – open-ended virtual worlds, in this chapter the process of identity formation within *Second Life* will be analyzed. The chapter will be organized around four main sections: it will begin with an analysis of the process of virtual self-representation that occurs through the embodiment of the avatar; then it will be argued that this leads to the development of self-representational digital narratives, and subsequently to an identity remediation. The final section will discuss the process of identity remediation and the importance of the combination of the human-machine through the analysis of the concepts 'cyborg' and 'posthuman'. It will be proposed that users of virtual worlds experience a process of 'cyborgization', but that they do not become 'complete cyborgs' free from cultural markers as predicted by Donna Haraway (1991). Instead, they are becoming 'metaphoric cyborgs', constituted through processes of remediation and representation, and shaped in the articulation of online and offline experiences. For the second part of the

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[138] 'As-if' is a practice that must be grounded in deliberate agency and lived experience of the subjects (cf. Braidotti, 1994: 7).

present research it was necessary to have additional data to that collected through detailed observation of different in-world locations, data that reflected the relationship users establish with their avatars. In order to accomplish this requirement 15 complementary interviews were conducted one year after the end of our participant observation (June 2011). The 15 locations of the second period of observation with the highest population density during the visit time were selected and several avatars were approached within these locations. Those who agreed to take part in the research and who gave us back a 'signed' informed consent[139] were interviewed (for a sample of the informed consent presented to participants see Appendix D). The research sample is compound by15 avatars, one from each selected location. The interviews were short and consisted of only by five questions;[140] each interview took an average time of 12 minutes[141] and was conducted through the Instant Messaging tool. The questions aimed to understand the relationship users establish with their avatars and with the virtual environment (for more information regarding the interviews see Appendix E). Apart from the interviews, respondents' profiles were also analyzed – it was not an in-depth analysis because the main concern was to understand the use players make of the profile tool and which information they tend to fulfill. The profile has seven tabs, or sections: 2nd Life, Web, Interests, Picks, Classified, 1st Life, and My Notes; but attention was focused only in two of them – 2nd Life and 1st Life. Throughout the chapters of Part II data collected through observation will be combined with data collected through the interviews (for a resume of the interviews analysis see Appendix F) aiming to reflect upon the remediation of cultural identity in *Second Life*.

1.1. Virtual Self-representation

> In this electric age we see ourselves being translated more and more into the form of information, moving toward the technological extension of consciousness. That is what is meant when we say that we daily know

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[139] The consent form had the structure of a survey, where respondents were asked if they wanted to take part of the research. The form was available online and respondents were given the link to access it. The web form could not be signed, but respondents were asked to fill their first life names: "Please type your name in the box below to indicate agreement to participate in this study".

[140] Keeping the interviews short was a strategy to avoid that respondents gave up, and to keep them focus in the subject.

[141] But the talk with each avatar took more time. Besides the interview questions in most cases the conversation continued and was focused on *Second Life*'s offer of things to see and do.

> more and more about man. We mean that we can translate more and more
> of ourselves into other forms of expression that exceed ourselves.

> (McLuhan, 1994 [1964]: 63)

The avatar represents a new form of expressing oneself. These digital creatures that inhabit a great part of virtual environments allow human beings to extend their existence into computer-mediated spaces. The presence of avatars in these new social spaces reveals the users' will of transcending 'physical reality' and intrinsic biological constraints (Heim, 1993). Within these digital environments users have the possibility of performing a different social role, and in most cases, they have the opportunity to define their appearance. I suggest that virtual worlds are privileged spaces for virtual characters development. Contrary to what is expected in social networking sites, for instance, in virtual worlds players are invited to create their own virtual representation.[142] The majority of role-playing virtual environments allows users to choose an avatar from a set of defined characters, typically organized by race and gender. Gender tends to be a non-biased element, it does not define a characters' attributes, which means that having a female or male avatar will not result in a stronger or weaker character. Race, on the other hand, is a more complex feature. For instance, in a game where Elves, Orcs or even 'simple' Human Beings, are among the races available, the body type, attributes and skills of each of these characters will be different. By attributes, for example, are meant strength, dexterity or hit points;[143] skills are related to the characteristics and abilities of each species – Human Beings tend to be balanced characters, not too strong or too suited for 'magical actions', Elves have special skills that make them appropriate for becoming Wizards or Rogues, and Orcs tend to be strong and are an adequate race for Warriors or Tanks.[144]

In open-ended virtual worlds like *Second Life*, players are invited to develop their own characters, first they choose if they want to be male or female and the initial appearance they will have, then the name. Defining these elements is what is necessary to be able to log into the virtual setting; but once in-world, a panoply of possibilities is made available to users. Through the built-in editing tools they may redefine their appearance – race, gender, age, height, body type, eyes and hair color and even skin. Everything is

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[142] Social networking sites are often used to share 'true' profiles and to maintain first life connections.

[143] Hit points represent characters endurance to attacks – how 'many' hits they will resist until losing life.

[144] Tank is the name usually given to characters that in an attack situation are the frontline of the party.

customizable. And as important as appearance customization, users can create their avatars' own stories and the goals for their digital representatives. I consider that the avatars' appearance, body language and modes of expression are part of the users' virtual self-presentation within this social environment.

The dramaturgical approach to social interaction proposed by Erving Goffman (1990 [1959]) may be helpful to understand how self-presentation takes shape during in-world interactions. According to Goffman "interaction (that is, face-to-face, interaction) may be roughly defined as the reciprocal influence of individuals upon one another's actions when in one another's immediate physical presence" (*ibid.*: 26). Despite offering a mediated form of communication, virtual worlds can be considered stages for social interaction since avatars may be totally personalized, in-world roles are not predefined by the games narratives, the virtual territory may be transformed according to users will, and there are different means of communication available. The dramaturgical approach compares people's everyday self-presentation with stage acting. Within *Second Life* users are offered a virtual space for social interaction, and as all avatars are controlled by human users when they get together they experience different social interactions. Virtual worlds' gamespaces may be understood as live-action stages, and by "[t]aking communication in both its narrow and broad sense, one finds that when the individual is in the immediate presence of others, his activity will have a promissory character" (*ibid.*: 14).

Goffman's proposal considers the existence of the different elements compounding a social interaction: there is a performer who plays a role for an audience, the action takes place on a front stage, but there is also a backstage that assumes the role of a safety area where the performer may be 'out of character'. Performers are those who self-present. They have different roles suitable for different social circumstances. By performance Goffman means all activities of a certain participant that take place on a given occasion, aiming at "influence in any way any of the other participants" (*ibid.*: 26). Performances are organized around 'parts' or 'routines', social scripts that by

> [d]efining social role[s] as the enactment of rights and duties attached to a given status, […] [that] will involve one or more parts and that each of these different parts may be presented by the performer on a series of occasions to the same kinds of audience or to an audience of the same persons. (*ibid.*: 27)

Audiences then are part of the performance. They are central for the existence of interaction, since they are performance's target:

> While in the presence of others, the individual typically infuses his activity with signs which dramatically highlight and portray confirmatory facts that might otherwise remain unapparent or obscure. For if the individual's activity is to become significant to others, he must mobilize his activity so that it will express during the interaction what he wishes to convey. (*ibid.*: 40)

Audiences are intended to get involved since it is for them that self-presentation takes place on the front stage: "[i]t will be convenient to label as 'front' that part of individual's performance which regularly functions in a general and fixed fashion to define the situation for those who observe the performance" (*ibid.*: 32). The front is organized around two elements, the setting and the personal front. The setting is composed of all the scenic parts available in the interaction location; personal front, on the other hand, is composed by "[…] items that we most intimately identify with the performer himself and that we naturally expect will follow the performer wherever he goes" (*ibid.*: 34). Personal front include clothing, sex, race, appearance, modes of expression, body language, posture, and institutional or ranking insignias. Personal front is constituted by all the elements that characterize one at first look, which may be classified as 'appearance' and 'manner', according to the function performed.

The final element that must be acknowledged for the process of social identity management during social interactions is the backstage: "the place where the performer can reliably expect that no member of the audience will intrude" (*ibid.*: 116). Backstage is a safe place, where the performer may not assume any given social role. Only those who are part of performer's personal networks should access this area. The distinction between existing front stage and back stage highlights the need that social actors have to have separate places suitable for different behaviors, since "[w]hen an individual appears before others, he knowingly and unwittingly projects a definition of the situation, of which a conception of himself is an important part" (*ibid.*: 234/5).

Self-presentation is used to project individual and collective identities. Despite its distinctive characteristics, online interaction also involves the articulation between performers, audiences, roles, and front and back stages. In the case of *Second Life*, I would like to argue that social interaction among residents is really evident, and that the existence

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of all the elements considered by Goffman as being part of how social actors present themselves to others, stresses its importance as a social scenario. Communication within this virtual environment, despite being mediated through a computer connected to the internet, only occurs among human users represented by avatars. Since users experience different types of interactions in different contexts, the way they present themselves is scripted according to the social conventions of this particular world, as will be discussed throughout this chapter. The management of front and backstage settings is of major importance, as it is in first life interactions. It may be considered that the avatar, its public profile, and messages published through 'general chat' tool[145] are part of the elements presented in the front stage area, while the human user behind the avatar and communication occurring through Instant Messaging tool are part of the backstage.

Despite being organized around traditional social setting elements, *Second Life* also embodies the main characteristics of cyberspace regarding identity – anonymity, liberation and fluidity (Barlow, 2001; Turkle, 1995), offering at the same time a recognizable space of action, as seen in the first part of this research. Interaction within this virtual environment occurs in a spatial setting that has the particularity of being *prodused*. *Second Life* is a complex digital environment compounded by a network of places, representational spaces, and even 'non-places' that mirror the offline world offering at the same time a realm for fantasy. Here users may define who to be and how to look, as well as, in which 'world' to live.

The habitation process within virtual worlds is an element that results from developing an in-world identity and, as Marie-Laure Ryan (2001) points out, this is the main feature that distinguishes virtual worlds from other media forms. In literature, film or theatre, for instance, it is possible to be immersed in a fictional world but not to actively participate in its development, nor to be an inhabitant of that reality. Virtual worlds may be understood as 'narrative landscapes' (Murray, 1999 [1997]: 83), settings where users may be part of an 'experiential drama'. Inhabitation results from spending time in-world, developing one's character and interacting with others and with the setting. It is the result of developing a second life, but would not be possible without the sensation of 'being there', feeling

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[145] 'General chat', this tool refers to the in-world's public chat, which allows users to publicly communicate with others. By contrast, the Instant Messaging system is considered a private mean of communication.

immersed within the digital environment, nor without the possibility of agency and transformation; which are the three main characteristics appreciated by users of digital environments (Murray, 1999 [1997]). These characteristics are developed within two different dimensions – interactive and immersive dimensions; which, according to Murray (*ibid.*: 71-84) are set around four essential properties, digital environments are procedural, participatory, spatial and encyclopedic. These settings result from an ability to execute a series of rules (procedurality). They are responsive to users' actions allowing them to be active participants, represent navigable space and due to the computer's capacity to store high quantities of information, they are seen by users as an almost endless database of objects and interactive scripts.

In order to better understand the process of developing a virtual self-representation in *Second Life*, attention will now be focused in the processes of immersion, agency and transformation experienced within virtual worlds.

1.1.1. Immersion, Agency and Transformation

Immersion is a participatory activity that lies upon the feeling of presence. Presence is connected with interactivity, and this relationship becomes visible when the variables that control the experience of presence are acknowledged; and according to Thomas Sheridan (1992) there are three: extent of sensory information; control of relation of sensors to environment; and ability to modify physical environment.[146] To be an inhabitant of a virtual environment requires an engagement with the setting and with the avatar. To understand this connection it is necessary to reflect upon the relationship that must be set up with the virtual setting using immersion and incorporation as central concepts.

Marie-Laure Ryan (1991, 1999, 2001, 2006) is one of the scholars that have been exploring immersion as a key-concept for understanding virtual worlds. Ryan proposes a comparison between literary fictional worlds and virtual 'helmet-generated' environments. Due to the growth of digital game environments other concepts are emerging; Gordon

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[146] Presence is a mandatory condition for achieving immersion, nevertheless it is a fragile condition and presence is *broken* whenever systems fail and avatars get 'decontrolled', as happens when avatars keep walking by themselves and go through the obstacles they find in their way, walls, for instance.

Calleja (2007, 2010), for instance, proposes incorporation as the concept that may remediate immersion. Incorporation is achieved through a deeper level of involvement and is the final stage of the digital environment's embodiment. In order to comprehend the process of getting involved with virtual social spaces these two approaches will be analyzed.

Immersion is understood as the corporeal experience felt while being in a virtual environment (Calleja, 2007; Laurel, 1991; Murray, 1999 [1997]; Ryan, 2001; Taylor, 2002, 2006). According to Marie-Laure Ryan (2001) there are three types of immersion: spatial, temporal and emotional immersion. Each of them responding to a feature of fictional environments: spatial immersion is a response to setting, temporal immersion a response to plot, and emotional immersion a response to character. These three types of immersion are achieved through an eight stage process:[147] active embodiment, spatiality of the display, sensory diversity, transparency of the medium, dream of a natural language, alternative embodiment and role-playing, simulation as narrative, and virtual reality as a form of art. The immersion process begins right after the entrance into an alternative fictional reality – when users enter the digital environment they get connected to this alternative non-physical space and take the first steps to become actively embodied within it. As soon as they are able to see beyond the screen and enjoy the surroundings (that are not always visible on the screen) they will be at the second stage of immersion's process – spatiality of the display, which means that users can now perceive the space which is beyond the computer screen and fill out the 'blanks' without seeing the whole picture. In this phase they learn not to be restricted by the medium which allows users to feel sensory involved with the virtual environment – third stage. Ryan considers that computer generated environments use to be more limited regarding sensory dimensions when compared to virtual reality spaces or literary fiction worlds. However, with the improvement of graphics and sound quality virtual worlds available through computers are becoming more appealing for the different senses; and despite remaining closely attached to the senses of sight and hearing, the 3D virtual worlds available nowadays are able to

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[147] Ryan's proposal to characterize the process of immersion is based on Janet Murray's one, which has seven stages: entering the enchanted place, finding the border, participation as visit, active creation of belief, wearing a mask, assuming roles, and regulating social interaction (cf. Murray, 1999 [1997]).

also give users almost a sense of touch due to the use of real-looking textures in the construction of settings and objects.

The fourth stage results from being so deeply involved with the setting that the medium becomes transparent and a feeling of 'being there' is achieved. When users get connected to the virtual space and stop having restrictions that are related to the mediated environment, it means that they are ready to move to the next step – the dream of a natural language. In this stage players look forward to a language that makes them feel comfortable in-world. This perception of the virtual environment requires a deeper knowledge which can only be accomplished when avatars are managed naturally, and when users learn the basic rules for in-world's interaction – when they become an inhabitant of the digital environment. After sharing a common language with other players they will become part of the space, become a dynamic character in that world, and will be able not only to have a closer relationship with avatars, but also to have their own narratives about the virtual world. This relationship with the virtual environment is achieved in the sixth stage – alternative embodiment and role-playing. Simulation as narrative is the seventh step of this immersion process, and exists in the ability to turn the essence of simulation offered by virtual environments into narrative. This capability requires time and experience within the digital environment, and the sooner this is achieved users will be able to move to the last phase and complete the immersion process – to understand virtual reality as a form of art. To reach this stage it is mandatory to get involved with this alternative space and to feel part of the plot in a relaxing and pleasurable way, then users will be able to see the environment that surrounds their digital representatives as a form of art, and to enjoy its quality and complexity. Marie-Laure Ryan considers that only when a player achieves this last stage he earns the capability to truly construct his own story, his own narrative within the virtual space, and only then "virtual communication technologies [will truly] exemplify a new form of 'reaching out' capable of casting into question how we conceive ourselves to be in the world as engaged subjects" (Hillis, 1999: xx).

Engagement is associated with incorporation, which despite having some similarities with immersion Gordon Calleja proposes as being a different type of outcome of the relationship established with digital worlds. Calleja (2007) proposes a digital game

experience model that demonstrates the development of the process of getting connected in and with a virtual environment, particularly with those that are game-based. Calleja's model proposes six involvement frames[148] that conduct to incorporation in virtual environments: tactical, performative, affective, shared, narrative, and spatial involvement. Contrary to Ryan's proposal, this model does not require players to get involved with the setting by a specific order; these are considered the necessary steps to achieve incorporation, despite the order in which they are accomplished. Tactical involvement is concerned with players' engagement with the context of the game – environment, rules and other players; performative is concerned with controlling and managing the avatar and the surrounding environment; and affective is central to achieve incorporation, since the more complex and compelling a game is, the more players will be able to get affectively involved and they will want to continue within that virtual space. Shared involvement, the fourth frame, is centered in the interaction with other playing characters in massive multiplayer online games; there are different levels of sharing, players may share their own experiences or/and may work in teams. Narrative involvement is one of the most complex frames of this model as there are different perspectives for understanding the role of narrative in these settings. Calleja considers that the two perspectives that are essential to an understanding of the narrative frame are: narrative as game story and background, which he calls designed narrative, and the narrative resultant from players' interpretation of the game experience, or personal narrative. Narrative involvement results from both perspectives or from just one of them, it depends on the game structure and interaction potential. The last frame – spatial involvement, requires locating oneself within the game area regardless the limits of the display, which means that the screen becomes transparent. The organization of players' experience within these frames leads to incorporation, which is different from immersion: "The sense of being in the environment is what has been referred to as immersion. This conception places a hard division between represented environment on one side of the screen and the human operator on the other" (Calleja, 2007:

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[148] This model is based in frame analysis proposed by Erving Goffman in his book *Frame Analysis: An Essay on the Organization of Experience*, 1974.

254). Incorporation is a wider concept that means assimilating the environment at the same time the avatar is embodied.[149]

Ryan and Calleja's proposals are different but they highlight almost the same elements for achieving a strong connection with a digital environment. As these proposals were not conceived to specifically comprehend open-ended virtual worlds like *Second Life*, I suggest that it is necessary to consider the idea of a blended model that predicts the possibility of two different outputs – immersion when players are just users of the virtual environment, and incorporation while along with being users they are also producers. This proposal results not only from the analysis of Ryan and Calleja models, but from its articulation with first-hand experience within *Second Life*. To reach either immersion or incorporation users need to master the platform; to be able to transpose themselves into action's space without being restricted by the medium – immediacy (Bolter and Grusin, 2000); to bond sensorially and emotionally with avatars and with the digital environment; to consider the virtual space as an alternative social space; and to embody the character – meaning to have the capability of constructing their own narratives on the experience lived within the digital space. Independently of being users or *produsers* the involvement experience lived by players might be almost similar, the main difference is in the ability to be a creator of the digital space. I intend that this ability leads to incorporation instead of immersion because in order to be able to create it is required to have not only expertise over the game controls but also over the game's scripting language, and if this investment is made users will inevitably get functionally closer to the platform. The proposal then is that both immersion and incorporation are the result of two different types of relationships established with virtual worlds – immersion in user-based relationships and incorporation in creation-based ones.[150]

Agency and transformation are interconnected with the immersion/incorporation process, once "the more realized the immersive environment, the more active we want to be within it" (Murray, 1999 [1997]: 126); and the wider the possibilities of agency and

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[149] The process of embodiment is also central to understand how players develop their virtual representation within virtual worlds; as such, it will be further discussed in the following sub-chapter.

[150] In *Second Life*'s case, and as suggested in Part I, the different classes of population will experience different types of engagement with the digital world. Citizens (Creators and Landowners) will feel incorporated within the virtual reality, and Tourists (specially the frequent ones – Griefers and *Flâneurs*) will feel immersed.

transformation the deeper will be users' engagement with their 'second lives'. Agency is the essence of being Human, and is represented by our capacity to exercise control over the surrounding environment. Being so intrinsic to human beings and occurring through the combination of interaction with intention, makes agency almost only achievable through our social daily lives. According to social cognitive theory, agency is what allows us to have an active role in our own self-development, adaptation and self-renewal (cf. Bandura, 2001), which means that it plays a major role in the development of identification systems and identities. Being so meaningful to the human experience makes agency a key element for engaging with the surroundings; it is a very important component of the social actors' experiences.

Until the emergence of virtual worlds, agency was almost inexistent outside of the first life dimension. Fictional worlds made available through literature and cinema, for instance, were not liable to human agency. Agency results from seeing the effects of performed actions and despite the feeling of immersion offered by some literary works, receptors' actions may not be reflected in the narrative. Video games despite being an interactive narrative form also do not offer the possibility for agency, once their narrative structures are closed. In highly interactive settings the player may have the illusion of being an agent, but it should not be called agency because the interference with the course of the action is not significant, and in most cases it is even nonexistent. Computers and the simulation of working stations were then the first non-physical environments to allow users to experience a different kind of agency, a mediated one. When using a computer users are aware of their actions by seeing them being performed on the screen, as a result of moving the mouse, clicking or typing. However, as Murray draws to our attention "we do not usually expect to experience agency within a narrative environment" (Murray, 1999 [1997]: 126). Nevertheless, within virtual worlds users do.

Janet Murray's *Hamlet on the Holodeck* (1999 [1997]) was one of the first research works to discuss the narrative possibilities of digital environments and the effect computers may have in reshaping the stories that frame our lives. According to Murray there are two main forms of agency reachable through interactive fictional worlds: spatial navigation and constructivism. Both of them lie upon what Bandura (2001) designates as the core features of human agency: intentionality, forethought ("people set goals for themselves, anticipate

the likely consequences of prospective actions, and select and create courses of action likely to produce desired outcomes and avoid detrimental ones" [Bandura, 2001: 7]), self-reactiveness ("an agent has to be not only a planner and forethinker, but a motivator and self-regulator as well" [*ibid*.: 8]), and self-reflectiveness ("people are not only agents of action but self-examiners of their own functioning" [*ibid*.: 10]). Spatial navigation depends on the type of spatial experience offered by the digital environment. There are two main forms, the overdetermined maze and the underdetermined rhizome.[151] The maze offers an unstructured narrative experience that "moves the interactor toward a single solution, toward finding the one way-out"; the rhizome offers the possibility of meandering freely through the setting offering several ways to solve the quest, "in the rhizome one is constantly threatened but also continuously enclosed" (Murray, 1999 [1997]: 133). Murray argues that environments that combine characteristics from both narrative forms are more engaging and allow a deeper sense of spatial navigation. I suggest that *Second Life*, due to the different type of locations available, is an example of a fictional world that offers different possibilities regarding spatial involvement, and of spatial agency. As a nontraditional game environment *Second Life* is not structured around a predefined narrative; the different locations that compound the game's geography offers visitors different experiences. Role-playing game areas like The Pot Healer Adventure – Numbakulla Island Project and Avilion Mist invite players to get immersed in a fictional dimension created within the virtual reality layer. *Second Life* users, already immersed in a fictional setting are invited to enter a role-play area and to assume another role within the virtual world. In the case of the Numbakulla Island Project players are invited to explore the setting and solve a mystery, in Avilion Mist, players enter a medieval fantasy natural setting and are invited to be a character in that particular 'sub-world', here there are not predetermined roles, players are just expected to perform according to the setting's atmosphere. In the case of locations that offer other experiences than game ones, players are requested to interact with the setting and to discover what each destination has to offer, but the goal for being in each of these places is defined by visitors and by the services and activities available. In both cases – in role-play and non-role-play spaces within this virtual world, spatial agency is achieved though the interaction potential of the setting. I consider

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[151] The rhizome was described by Gilles Deleuze and Felix Guatarri (2005 [1987]) as a root system in which every node must be connected to any other node, as in a reticular system: "The rhizome itself assumes very diverse forms, from ramified surface extension in all directions to concretion into bulbs and tubers" (7).

that it is through the different interaction possibilities that players develop their own narratives and define the goals for their second lives. Constructivism, on the other hand, represents the highest form of mediated agency – the ability to construct objects and display them within the digital setting. MUDs were the first participatory fictional environments; players took advantage of this possibility and built their own fictional worlds. Open-ended virtual worlds such as *Second Life* are the 3D version of the previous text-based worlds. Being built mostly upon *prodused* content makes *Second Life* one good example of constructivist agency. Players are taking advantage of the built-in easy to use design tools to not only create their own places, but also to shape their own stories. Within this virtual world their actions seem meaningful and contribute to the making of a shared digital fictional setting where it is possible to communicate and interact with people from all over the world.

There also different modes of agency, among those at least two may be experienced by users of virtual worlds: personal and collective agency. Personal agency is associated with the capacity of each player to perform their own actions – for instance, if a player buys a plot of land in *Second Life*, he would be able either to decide to build his house by his own using the building tools available, or to buy a complete house and *rez* it in the desired location. Collective agency is also prominent in multiplayer gamespaces; players work together to achieve common goals, like developing their communities or groups own places. The majority of locations visited during participant observation were developed by groups of residents that took advantage of the possibility of co-work to create interactive, welcoming destinations, for themselves and most of the time also for others.

Transformation is the third characteristic that makes digital environments so engaging. It is deeply related to agency and subsequently to immersion. Transformation is connected with the procedural nature of virtual worlds. Players appreciate being able to alter the landscape, and/or the course of the story: "the transformative power of the computer is particularly seductive in narrative environments" (Murray, *ibid*.: 154). Transformation combined with agency and immersion are very important for personal engagement with the setting and with digital representatives. *Second Life* offers its members the chance to create their own world and avatars; it invites users to contribute to its development allowing them to experience the transformative power of 3D virtual settings. Personal transformation results

from being a social actor within *Second Life*'s digital society. Users' actions within the gamespace are key elements of their self-representational narratives. Nevertheless, before being able to take advantage of *Second Life*'s participatory characteristics it is necessary to get closer to the avatar, to embody it.

Notwithstanding the distinction drawn between users and *produsers*, immersion and incorporation are both considered representative of a close relationship with the virtual world and result also from the possibility of agency and transformation offered to users. In both cases, when players are logged in they become active social actors in an alternative reality. At the same time they are getting involved with the virtual environment they are also constructing the self-representational narratives that represent their digital selves in that setting. Once "the user assumes the role of the main character and, therefore, will not come to see this person as an other, or as a person at all, but rather as a remote-controlled extension of herself" (Aarseth, 1997: 113). In order to understand the relationship established with avatars as users' virtual representations, I suggest that it is necessary to comprehend the embodiment process. To establish a close relationship with the digital environment players need to embody avatars and accept them as their digital representations within this virtual world. The majority of players have only a main avatar – they may have 'alts' but tend only to develop a 'life' for the main one (cf. Boellstorff, 2008; Heider, 2009). To embody the avatar is a key aspect of the definition of a cyberidentity, once virtual world users "have learned to delegate their agency to body-representatives that exist in an imaginal space contiguously with representatives of other individuals. They have become accustomed to what might be called lucid dreaming in an awake state" (Stone, 1991: 94).

1.1.2. Avatar and the Embodiment of the Digital Self

> Before the advent of the avatar, there was only one world to live in, Earth, and only one avatar to inhabit there, the Earthly body. The recent emergence of virtual worlds besides Earth has vastly expanded the range of choices regarding one's own physical being and the space which it inhabits.
>
> (Castronova, 2003: 32)

Avatars are the main media to enter virtual environments. Through them residents develop an active and complex social network: "[t]he avatar mediates our self in the virtual world: we inhabit it, we drive it, we receive all of our sensory information about the world from its standpoint" (Castronova, 2003: 5). The process of avatar embodiment varies from player to player, but I would like to propose that there are several steps that are not easily skipped. The first stage for the definition of digital selves is avatar customization and interaction with other users.[152] Avatar personalization consists in defining one's appearance and profile. These two elements are central to attribute a corporeal meaning to digital representatives.

Social interaction seems to be shaped by appearance just as happens in the first life dimension. Several research work showed that avatars' appearance is very important for virtual interaction, and influences users' behavior (see, for instance: Peña, Hancock, and Merola, 2009; Suler, 1996; Yee and Bailenson, 2007; Yee, Bailenson, and Ducheneaut, 2009). The influence of appearance over behavior is a result of what Nick Yee and Jeremy Baleinson propose as the 'Proteus Effect' (2007); based upon self-perception theory that argues that:

> Individuals come to "know" their own attitudes, emotions, and other internal states partially by inferring them from observations of their own over behavior and/or the circumstances in which this behavior occurs. Thus, to the extent that internal cues are weak, ambiguous, or uninterpretable, the individual is functionally in the same position as an outside observer, an observer who must necessarily rely upon those same external cues to infer the individual's inner states. (Bem, 1972: 1)

The 'Proteus Effect' theory proposes that users make inferences about their expected behavior from the way others interact with them; interaction that is shaped by their appearance (Yee and Baleinson, 2007; Yee, Baleinson, and Ducheneaut, 2009). In order to legitimize this theoretical approach to users' behavior Yee and Baleinson organized a set of experiences which led to interesting results. For example, experimenters found that players that choose to be represented by attractive avatars are more comfortable with keeping a shorter distance between them and others, and they disclose more personal information than users having an unattractive avatar; and players with taller avatars seem to be more confident than those controlling shorter ones. These results revealed that just as

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[152] The second stage, developing self-representational digital narratives will be explored in the following chapter.

some attributes make social actors friendlier or more aggressive in first life, the same may be expected from their behavior in their second lives. The relationship set between players and their avatars is narrow and "neither the virtual nor the physical self can ever truly be liberated from the other" (Yee, Baleinson, and Ducheneaut, 2009: 309). What may be seen as the 'tyranny of embodiment' (Yee, Ellis, and Ducheneaut, 2009).

I consider that the choices made regarding avatars' appearance influence individual stories within the virtual environment, mainly because as a consequence of having to choose a particular set of characteristics users have an almost predetermined image of themselves, and tend to behave according to that image. Developing a digital character will lead to the development of a digital identity, mainly because virtual worlds like *Second Life* allow users to "tailor our digital self-representation with a degree of control not possible elsewhere" (Yee, Baleinson, and Ducheneaut, 2009: 286). This great control allows the definition of elements such as age, gender, ethnicity and height, for instance. Aiming to deeply understand the importance of appearance not only to behavior but to the embodiment process, during the netnographic research different types of avatars were observed, and the analysis of their behavior was complemented with some brief interviews, these focused on the relationship established between users and their avatars.

Throughout the research it was realized that the majority of the avatars present in *Second Life* are human-based and are generally tall and good looking – woman tend to be slim, sexy and attractive, and men well-fitted: "the accepted 'look' seems to be well-dressed, good hair, good skin, and physically fit" (Heider, 2009: 137). Users' appearance characteristics seem to be defined by western beauty stereotypes; players take the opportunity given by the virtual world to look like top models and celebrities that they see on television, and in movies and magazines. Informal interview respondents also corresponded to this description – the majority were human-based[153] and looked good or very good, two had a 'regular' appearance and another two a 'newbie' one.[154] When asked

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[153] The respondents sample regarding type was: 11 humans, 2 *furries*, 1 dragon and 1 dinosaur.

[154] In order to classify respondents' appearance four categories were set – newbie, regular, good-looking and very good-looking. Newbies are those who had not changed the initial appearance; regular those who had a customized appearance but not too elaborate and/or 'real looking'; good-looking those who had a more sophisticated appearance; and very good-looking those who were really well dressed, the texture of the clothes had a 'first life look' as well as their skin and hair. Non-human characters were classified regarding their appearance as being good-looking not because of their 'real' aspect, but because they looked well designed animation characters.

to define their appearance the answers in most cases matched this initial appreciation, and the majority considered their avatars as being good-looking.[155] Avatar 1, 5 and 11, for instance, stated:

> Avatar 1 [human]: I look good. I wish I looked that good in my 1st life…
>
> Avatar 5 [furry]: I don't look the same every day; I change my outfit on a daily basis. Today I chose a suit, but sometimes I'm more relaxed. I think I always look good.
>
> Avatar 11[dinosaur]: I'm a blue dinosaur. I'm so cute.

Most of the respondents seemed proud of their digital representatives. I suggest that when players nurture their avatars it predicts a close relationship between 'them'. The possibility of customizing avatars' appearance is very relevant for the process of embodiment-disembodiment-re-embodiment. Embodiment occurs when players experiment in-world's reality through the eyes of the avatar; disembodiment when he feels totally immersed, and re-embodiment when he surpasses the fascination of having a 'second life' and starts fully exploring the possibilities offered by the virtual environment. There are two key-elements for this process – players' physical bodies and avatars' bodies, interconnected through the game interface. Both bodies – physical and digital, are "social, cultural, and historical production[s]":

> 'production' here means both product and process. As a product, it is the material embodiment of ethnic, racial, and gender identities, as well as a staged performance of personal identity, of beauty, of health (among other things). As a process, it is a way of knowing and marking the world, as well as a way of knowing and marking a 'self'. (Balsamo, 1996: 3)

To customize avatars' appearance players must use the embedded appearance editing tools. Despite being user-friendly, there are many variables to edit and to create the perfect avatar time should be invested, and sometimes also money. Controlling the interface is crucial to achieve better results. Players' physical bodies play a major part in the first stage of this process. Avatar control occurs through the combination of mouse and keyboard use; as players move their hands and fingers, press a combination of keys, and move and click mouse buttons, they see the result, the materialization of those actions within *Second Life*. The relationship established between players' bodies – physical and digital, sets the tone for the embodiment stage, once "players and avatars are united in the joy of doing through

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[155] From respondents answers the following categories were set: newbie [2], regular [1], good-looking [7], very good-looking [3] and similar to first life [2].

experiencing first-person presence, first-person engagement, first-person perspective and first-person immersion" (Norgaard, 2011: 1).

There are different perspectives to understanding the player-avatar relationship. The more knowledgeable are those that perceive avatars as being players' on-screen visual representations (body image), cognitive representatives (intentional and instrumental actions), fictional characters (role-play), prostheses (corporeal extension), and (direct) self-representations. As all of them ignore the corporeal dimension of player-avatar relationship, Rikke Toft Norgaard (2011) proposes that we should rethink all of them having as central element players' bodies: "player-avatar identity as a corporeal connection" (5). This need to understand the "corporealization of the experience of playing" was also highlighted by Marti Lahti in the essay 'As we Become Machines – Corporealized Pleasures in Video Games' (2003), so following Lahti (2003) and Norgaard (2011), it is considered to be indispensable to acknowledge physical bodies' role, to better understand how players embody their avatars and become *players-as-avatars-as-players*. This approach suggests that body image should be rethought as body schema, cognitive relationship as body memory, performance as digital corporeality, prostheses as corporeal incorporation, and self-representation as self-being, because

> [o]f-course players can choose to assume a stance of visual voyeurism, cognitive mentalism, dramaturgic escapism, prosthetic cyborgism or social narcissism in relation to their avatars, but the 'default position' or 'natural attitude' in player-avatar identity is the corporeal connection emerging through the joy of self-being and self-doing (Norgaard, 2011: 12).

There is, then, a corporeal connection between player and avatar that makes embodiment possible: "video games [are] a *paradigmatic* site for producing, imagining, and testing different kinds of relations between the body and technology in contemporary culture" (Lahti, 2003: 158, emphasis in original). I suggest that the body then plays a central role in the relationship players set with the fictional environment:

> First, the game world and various characters (our avatar included) react to our decisions and real corporeality (even when it's something as simple as clicking the mouse) – that celebrated 'interactivity' of computer-based media. […] That is, the strong sense of bodily presence, so central to games, is based on this corporealization of perception, the translation of perception into bodily movement […]. Second, an important part of that interactivity is the ability to influence the way your avatar ('you) looks on the screen. That is, the representation of an avatar's body forms an important dimension of our desire for immersion in the fictional world of a game. […] This

second order of interactivity – the representational presence of the body – seems to provide a sort of (ideological) framework for the first, the corporeal identification and pleasure. (Lahti, 2003: 164-5)

The corporeal relationship established with the avatar is evident, but through the process of immersion and/or incorporation there is a stage during which players tend to forget that both versions of their bodies must always be related, and tend to consider that the disembodiment of the first life body occurs. The first internet research regarding the role performed by the body within fictional interactive virtual worlds saw it as becoming 'dematerialized' through virtual interaction (Balsamo, 1996, 2000; Donath, 1999; Slater, 2002; Stone, 1991; Turkle, 1995; Ward, 2001):

Even though some games may soon allow players to design personal avatars or puppets – simulations of oneself – more frequently VR is promoted as a body-free environment, a place of escape from the corporeal embodiment of gender and race. Upon analyzing the "lived" experience of virtual reality, I discovered this conceptual denial of the body is accomplished through the material repression of the physical body. (Balsamo, 1996: 123)

With the increasing complexity of virtual worlds the role of players' bodies became more and more evident, and despite considering that there is a disembodiment stage in the re-embodiment process this is understood as "[…] not the opposite of embodiment but rather signifies a specific form of embodied experience during which the body is relegated to the periphery and thereby is not considered an active or essential element of said experience" (Veerapen, 2011: 83). Disembodiment may, then, be understood as an in-between stage of the process of inhabiting the virtual world, and the avatar, but even during this in-between stage players' bodies never become a futile element, they always play a significant role, even if a discrete one (Argyle and Schields, 1996; Flichy, 2007; Froy, 2003; Hansen, 2006; Mingers, 2001; Vidcan and Ulusoy, 2008).

Re-embodiment is seen by several researchers as an almost natural condition of fictional interactive environments (see, for instance, Bell, 2001; Dovey and Kennedy, 2006; Hansen, 2006; Pearce, 2009). The fact that users are represented by digital bodies within these social spaces puts the corporeal element of having a *Second Life* at the forefront. Re-embodiment is achieved when players are able to freely interact through their avatars, and the digital body is perceived as a visual representation of players' corporeal presence within the digital environment. The avatar is transformed into a 'discursive or visual virtual

self' (Kolko, 1999) that represents the player's body and mind: "the inescapable connection between the self and its physical body is reframed by the existence of a representation that, despite having a corporeal appearance, belongs to the realm of the symbolic" (Fragoso and Rosário, 2008: 318).

In *Second Life* avatars' bodies play the same communication role bodies do in first life – they are means of self-presentation inscribed with cultural narratives, individual and social ones. I suggest that avatars' bodies are, then, an important mean of verbal and non-verbal communication, as well as a primary means of self-presentation. According to Pereira (2011) when someone mentions the visual representations of the body or body's visual discourses, one is referring to the construction of 'social representations of the body': "[t]hese are conveyed through the meaning and the interpretation ascribed by individuals to the visual forms of (re)presenting the body" (Pereira, 2011: 5). These representations are a key social element both in first life and in second life and there are two main contributors to these representations: body-art (Schildkroupt, 2001) and other 'body-representations' (Pereira, 2011). By body-art is intended to mean individual representations of the body through forms of self-presentation from clothes, make-up or tattoos, to how we walk or behave: "'body-art' makes a statement about the person who 'wears' it, communicating a person's status, class or condition in society as it displays accomplishments and encodes memories, desires, and life stories" (*ibid.*: 4). Body-representations include all forms of representing the body for example sculpture, photography, film or video games.

Users re-embody avatars and allow them to experience the virtual world. James Paul Gee (2008) suggests that this re-embodiment occurs through the possibility of 'microcontrol' offered by video games' scenarios. 'Micocontrol' occurs when: "[h]umans feel their bodies extend only so far as the space over which they have small-scale control, which for most of us is a space quite close to the body" (Gee, 2008: 261). There are several artifacts that allow extending this space according to the users' needs and/or wishes. Virtual worlds allow players to extend their presence and agency into cyberspace through the avatar and to develop their own bodies and identities, once "player-avatar identity is, to a large extent, something that comes together and is enjoyed through the corporeal-locomotive interaction of players" (Norgaard, 2011: 1) and "[p]layers-as-avatars-as-players are fundamentally

characterized, not by inhabiting, but by being corporeal digital bodies *inhabiting* the gameworld" (*ibid.*: 12-12).

During the interviews respondents were asked to describe their avatar and the relationship they established with them, and they revealed that avatars are indeed their digital representation and/or their own character in-world:[156]

> Avatar 7: My avatar is me only in a digital version. It looks a lot like me. I'm a middle-age American woman who had a career as graphic designer, when I became unemployed and I was looking for alternatives, a friend told me about this amazing virtual world and the possibilities it offers to residents. I created my account and during the first months I just explored the surroundings. I came here in the beginning of the hip stage of SL; there was news everywhere about the possibilities of this virtual world. The next step was to become a landowner and have a spot where I can feel at home and create my pieces. I create furniture.
>
> Avatar 13: I like it a lot. It is a freer version of me.
>
> Avatar 15: I like my avie. We are close. She allowed me to explore a new version of myself in this virtual world.

During the process of embodying the avatar, players need to define how they want to look, and which image of themselves they want to transmit. Firstly there are two basic decisions to take– if they want to look similar to first life, or if they prefer to take this opportunity of having a 'second life' to experiment with different appearances. The tendency seems to be almost always to opt for an improved version of oneself, even when look-alike avatars are created. Re-embodiment is achieved when users control the avatar almost as if it was not a mediated control. It occurs not only through the customization of the digital body, but also through its 'use' for verbal and non-verbal communication. Social interaction in *Second Life* is marked by similar constraints as those experienced in first life and appearance, personal space and (corporeal) behavior play a key role not only in presenting oneself to others, but also for the performance of identity within this virtual world. I would like to suggest that this (re)embodiment experience results from the accomplishment of four kinds of expectations: expectation of human embodiment (players mainly adopt human avatars in virtual worlds); expectation of matched affordances (avatars tend to do things in the way people do in first life); expectation of congruence (users may have different perspectives of the virtual environment but those perspectives are congruent); and expectation of single

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[156] Only the two newbies inquired stated that their avatars do not mean much yet; as they had just arrived into *Second Life* this was considered the expected answer.

avatar control (users can only control one avatar at a time)[157] (Yee, Ellis, and Ducheneaut, 2009: 3).

After avatars' bodies, profiles are the second most useful tool to introduce oneself to others and to consolidate digital existences, since the information published is public and anyone can see another avatar's profile. Besides writing something about themselves, profile tabs offer users the possibility of uploading a photograph of their avatars;[158] profile almost assumes the role of an official identification card within this virtual environment. Few users fill their profiles, and 1st Life tab is usually left blank (Heider, 2009). Among interview respondents not filling out their profiles (all tabs) was the most common option; from those who did it only three filled the 1st Life tab. Those who filled the 2nd Life one took the opportunity to introduce themselves and their in-world goals. The information present in the profile was similar to their answers regarding the role they perform within *Second Life*:

> Avatar 5: I'm an active resident. I'm part of a furry community and I sell my products to several furry specialized shops.

> Avatar 7: I'm a creator. I develop modern furniture pieces and I sell them in the Marketplace and they are also available in some in-world stores. Usually I also accept orders for specific pieces, clients tell me what they want and I develop it. The business goes well, I can't complaint.

> Avatar 8: I'm a dragon. I belong to this community and we create several things together.

> Avatar 10: I use SL for work. I'm a teacher and the majority of the time I spend here is to research for my virtual classes, or to be in classes.

Don Heider (2009) suggests that are four typologies of behavior regarding personal information disclosure by residents in *Second Life* (Heider, 2009: 138): truth-tellers, embellishers, role-players, and liars. The first are characterized by being open and direct, being 'transparent' in a virtual environment where identity is protected by the layer of anonymity does not mean that they tell everybody everything about their first and second lives, but that in-world they are trustworthy characters. Embellishers, on the other hand, mostly say the truth but tend to exaggerate a bit on the details of the information provided – "embellishers will take a kernel of truth and add to it, often to make themselves appear a

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[157] Unless they are using two computers at the same time, but even in these cases it is not possible to simultaneously control two avatars with the same degree of 'perfection' one does when controlling just one.
[158] This is a paid service.

bit more interesting than they really are" (*ibid.*: 138-139). Role-players are those users that had a defined goal regarding who they want to be in the virtual environment, the most common types of role-play are: sci-fi/cyberpunk, vampires, elves, *furries*, members of the Gorean community, and dragons. Liars are those who lie about their first life and deceive others; the more common lies concern marital status and gender. Having this taxonomy in mind, I propose that all interviewed avatars may be considered as being truth-tellers and/or role-players.

Embodying the avatar is a crucial step in immersion/incorporation process. To feel corporeally connected to digital representatives in *Second Life* is important for the development of remediated identities. The main elements of the (re)embodiment process are, then, to customize the avatar, use it in its full potential to interact with other users, and to update the profile. Both body and profile are useful tools to present one to others, meaning that they are fundamental for defining (corporeal) digital representations within *Second Life* and the starting point for the development of self-representational digital narratives – the second stage for the definition of digital remediated selves.

1.2. Self-representational Digital Narratives

Cyberspace is becoming more and more an alternative dimension for our lives; a dimension where it is possible to create virtual social networks. The emergence of these networks is contributing to the growth of digital storytelling because regardless of the dimension where the action takes place narration is a basic human faculty of meaning-making (cf. Bruner, 1991). In cyberspace storytelling helps users to make sense of this dematerialized reality which is characterized by the (re)embodiment of first life's main contingencies. I would like to suggest that self-representational narratives are one of the main type of narratives built in the virtual space, and they "might be seen as creative responses both to individual life experiences and to traditions of narration" (Kaare and Lundby, 2008, 105).

Marie-Laure Ryan in her book *Avatars of story* (2006) suggests that there are four main approaches to digital narrative: practical, metaphorical, expansionist, and traditionalist

approaches. The practical approach is centered in the potential of computers in disseminating personal stories rather than in their ability to contribute to the development of new forms of narrative. The metaphorical approach is concerned with the interface capability of telling stories; meaning that computers tend to be seen as machines that may tell stories. The expansionist approach sees narrative as a cultural element: not only does narrative differ from culture to culture, it evolves along with history. At least, the traditionalist approach considers that narrative is transcultural, transhistorical and transmedial and that the possibility of a user's participation is the most important property of digital media. Ryan considers that to better understand the importance of new media in the emergence of digital narratives the more suitable approach is an in-between approach, between the expansionist and the traditionalist. This in-between approach seems also the more suitable to fully understand the role of digital narratives in identity formation within virtual worlds.

In order to understand the importance of self-representational narratives that are developed in virtual worlds I consider that it is important to see narratives as cultural elements also shaped by technological development – the narratives created to present oneself are permeable and porous entities that evolve along with social and cultural development. This historic-cultural contingency is contributing to the change of users' nature – users are becoming more and more participant and as *produsers* they may take an active role within different virtual social spaces. This user empowerment is contributing to the rise of more complex self-representational digital narratives, once "multiplayer online games as a genre provide a model for the development of digital narratives that are experiential, multiple, and relational – thus making for rich, engaging narrative systems" (Chatzichristodoulou, 2009: 221).

Self-representational narratives have a crucial role in the constitution of online identities. As cyberspace is growing as a performative space, the more users need to construct stories that contextualize their virtual existences. These narratives tell the story of their digital characters and consolidate their roles as performers in this alternative dimension: "storytelling can be a powerful agent for personal transformation […] digital narratives add another powerful element to this potential by offering us the opportunity to enact stories [rather] than to merely witness them" (Murray, 1999 [1997]: 170). I suggest that virtual

worlds like *Second Life* are favorable to the formation of complex self-representational digital narratives. These narratives are built with the components of traditional narrative (Ryan, 2006): characters, events, settings and trajectories. And as in traditional narratives, these digital narratives are built within a fictional framework which contributes to its own consolidation. The process of narrative construction in *Second Life* begins with the definition of an avatar's gender, initial appearance and name. As soon as the process of personalization of the avatar begins the closer users get to their digital representation and the sooner the narrative that contextualizes their virtual existences within this virtual world begins to be developed. The relationship established with the platform will also contribute to the construction of this narrative – the closer the relationship with the platform and with the avatar, the more solid and structured will be self-representational digital narratives within this open-ended virtual world.

In order to understand how these narratives are developed during the interviews respondents were asked to characterize what is *Second Life*'s meaning for them, and they did it in five different ways: as a social, professional, leisure space, as a new experience and land of opportunity:

> Avatar 3 [social space]: SL has an important role in my social life. I really enjoy being able to perform different activities and to meet new people every day, and all in the same place. That's one big advantage of virtual worlds.

> Avatar 7 [professional space]: It means the possibility of continuing to be a designer. It changed my life, specially my professional one.

> Avatar 15 [leisure space]: SL is part of my leisure time. I prefer to be here than watching TV, for example.

> Avatar 6 [new experience]: A new experience. I'm not a gamer and there is a lot of things to get used to.

> Avatar 9 [land of opportunity]: Briefly, it means another world, new opportunities.

These classifications resulted from the individual experiences of interviewed players, from the role they perform within this virtual environment. As players are able to define their own roles, they are the main authors of their self-representational narratives which are developed through player-avatar, player-avatar-setting, and player-avatar-other avatars interactions. Thus, all the "enacted events have a transformative power that exceeds both narrated and conventionally dramatized events because we assimilate them as personal experiences" (Murray, 1999 [1997]: 170). Having this in mind, respondents were also

asked to describe the role they play in *Second Life*. From their answers three main types of roles played were set: *Flâneur*, Newbie, and Creator. These categories are deeply related to those set in the first part to identify the different types of social actors that inhabit this virtual world.

> Avatar 1 [*flâneur*]: I'm a resident. I have my plot and my home. I enjoy hanging around with friends.
>
> Avatar 4 [newbie]: I'm learning how to conduct my avatar, I don't have a role yet, but I want to discover what SL has to offer, I have a lot of friends that are in this virtual world and they convinced me to join.
>
> Avatar 13 [creator]: I'm a model for a fashion in-world brand. I earn some money and I'm almost always busy.

By comparing the answers to both these questions – *Second Life* meaning and role played in-world, it was concluded that *Flâneurs* are all those that take advantage of *Second Life* as a social space that offers the opportunity of having new digital, intercultural and interpersonal experiences; Newbies are newcomers that look to experiment and explore the virtual world before defining what will be their role in-world; and Creators all of those that look forward to contribute to the virtual world's development – in this category are both object and service creators. Therefore, "[s]ince each interactor generates their own narrative through their own unique personal experience, any gaming narrative is always personalized and subjective" (Chatzichristodoulou, 2009: 227).

Digital self-representational narratives are, then, the essential element that helps virtual performers to consolidate their online characters: "the most important element the new medium adds to our repertoire of representational powers is its procedural nature, its ability to capture experience as systems of interrelated actions" (Murray, 1999 [1997]: 274) and "[i]n a procedural world, the interactor is scripted by the environment as well as acting upon it" (Murray, 2004: 6). In situations of deep involvement with digital environments – when immersion or incorporation are achieved, these narratives become the main tool to shape and materialize users' dematerialized selves, because, like in first life they need a story that strengthens them as individuals. And as technology is altering narrative modes and digital storytelling is emerging the sense of self is also changing – these new self-representational digital narratives are contributing to identity remediation within virtual spaces, since "to play with narrative is to play with identity" (Lundby, 2008: 5).

1.3. Identity Remediation

Social games like *Second Life* are contributing more and more to the emergence of new remediated identities since they remediate reality offering a new dimension for social lives. Having Roy F. Baumeister's definition as a starting point – "An identity is a definition, an interpretation of the self" (Baumeister, 1986: 4) the main aim of this section is to understand the process of identity remediation in *Second Life* and the consequences that this process might have for the emergence of new notions of self, since both identity and self are concepts socially and culturally determined and shaped by individual and social experiences.

The classical philosophical perspectives to understand the self are centered in what make a person distinct from others. The first philosopher to propose the self as an individual entity was René Descartes (1596-1650). The Cartesian self was presented as a pure subject reduced to the act of thinking and having no content of its own – *I think, therefore I am*. This first understanding was questioned years later by John Locke in "An Essay Concerning Human Understanding" (1690), in which he drew a distinction between sensation and reflection as two sources of ideas and experience. According to Locke, personal identity is based on memory as a reflection extended in the past. Developments of Locke's approach were centered in the fact that introspection and reflection are means of attaining knowledge about the self. Since these classical proposals the self has been the object of study for several research works from different scientific areas; and it is evident that this is a theme that will continue to gather different perspectives. The two main conceptions that prevailed until today are the self as pure subject, as a passive world spectator, and the self in the sense of personality but as a compound structure of which components are supplied by the world itself (cf. Stets and Burke, 2003).

It is important to acknowledge the constitution of the self as resulting from the interaction with others and with the surrounding environment. The importance of the *other* for the constitution of the *self* was recognized by different thinkers throughout the 20th century. Sigmund Freud, Emmanuel Lévinas and Jacques Derrida are among those thinkers. Freud argues that the *other* is part of the development of the self and that alterity is a constitutive

element of individual identity (Freud, 2001 [1914]). Lévinas,[159] on the other hand, argues that the *other* does not play a part in the constitution of *self* because it is always inaccessible (Lévinas, 1999 [1969]; Pinchevski, 2005). Following this conceptualization Derrida proposes alterity for understanding the role of the *other*. Alterity is important for acknowledging that subjects need to interact with others, and that it is from this interaction that the individual *self* emerges. The self is then relational – "a self that defines itself primarily in terms of the relationships it holds both within human communities (of family, friends, and larger groups, including polities) and the larger natural (and for some, supernatural) communities surrounding us" (Ess, 2010: 110).

The development of communication technologies and platforms for virtual social interaction are reshaping notions and perceptions of communication, culture and identity. The theory of remediation proposed by Jay David Bolter and Richard Grusin (2000) aims to understand the essence of new media. The authors suggest that new media do not substitute old media; they refashion them through the incorporation of the main characteristics of one or more older medium in a new technological artifact, a new medium. They argue that there is not a single strategy for this process, there are two that may seem opposite but that complement each other – immediacy and hypermediacy. By immediacy they understand the "style of visual representation whose goal is to make the viewer forget the presence of the medium […] and believe that he is in the presence of the objects of representation" (Bolter and Grusin, 2000: 272-73); and by hypermediacy a "style of visual representation whose goal is to remind the viewer of the medium" (Bolter and Grusin, 2000: 272).

With the increased inclusion of new media in our daily lives the remediation process is growing and expanding other elements of our lives besides media. The following analysis will be centered in the remediation process that occurs within virtual worlds, not only remediation in the sense of refashioning old media – for instance, virtual worlds remediate adventure video games, but also reality and identity remediation. These ultimate remediation processes occur when a stage of immersion or incorporation is achieved. Bolter and Grusin propose that as new media's importance in our lives grows the

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[159] Lévinas' reflection on the other was developed during the time he was a prisoner of the Nazi regime. This conceptualization of the other was highly influenced by the historical, cultural and political context of the time.

remediation process and its double logic of immediacy and hypermediacy become an important tool to analyze the constitution of a contemporary self since "we see ourselves today in and through our available media" (Bolter and Grusin, 2000: 231). Their proposal links this contemporary self to the immediate and hypermediated aspects of remediation, and they propose the emergence of virtual and networked selves.

1.3.1. Virtual and Networked Selves

With the rise of web 2.0 social platforms new conceptions of self are emerging and complementing late modernity proposals that understand self as being liquid (Bauman, 2000, 2005) and reflexive (Giddens, 1990). Jenkins (2006) proposes to understand self-identity as a process, a process constituted through interactive networks, and to acknowledge the importance of communication technologies that offer settings for social interaction. New media offer, then, a privileged site for the emergence of what Bolter and Grusin (2000) propose as remediated selves:

> New media offer new opportunities for self-definition, for now we can identify with the vivid graphics and digitized videos of computer games as well as the swooping perspective of virtual reality systems and digitally generated film and television logos. We can define ourselves through the converging communication technologies of the telephone and the Internet. (231)

Bolter and Grusin's proposal argues that there are two main types of remediated selves, each of them resultant from the two logics of remediation: virtual and networked selves. The virtual self is defined under the logic of immediacy. Immersion in virtual reality (helmet or computer-generated environments) allows users to have a multiplicity of points of view that lead them to a global vision of the virtual environment. Bolter and Grusin consider that this freedom is the main characteristic that defines the virtual self (Bolter and Grusin, 2000: 243). The immersive digital space is achievable through a medium with the capacity of being transparent and of involving users in the screen-represented space. These immediacy and feeling of being there is redefining the sense of self, as well as the capability of immersion and of having multiple points of view while being in-world. The authors also defend that this ability contributes to the dissolution of the classical perspective of the Cartesian self, once in digital environments knowledge (over the

surroundings) becomes the sense of perception. On the other hand, under the logic of hypermediation networked selves emerge. These selves result from the process of being connected rather than of being immersed. Networked selves may be developed both online and offline and may have multiple and simultaneous points of view, since the medium is evident this self is a non-immersive one; users are conscious of the presence of the medium: "[o]nline social networks constitute such sites of self presentation and identity negotiation" (Papacharissi, 2011: 304).

1.3.2. Remediated Identities

Having Bolter and Grusin's conceptualization in mind, my proposal is not a new definition of self, but an alternative way to understand these remediated selves that are shaped nowadays by different social media, both immersive and hypermediated. As new media become more and more part of our lives new habits are rising: cyberspace's importance is growing and people from all over the world tend to spend more time in this alternative dimension. I suggest that these new practices are leading not only to new perceptions of the self, but to new perceptions of identity. Identities developed in cyberspace should be understood as remediated identities. These identities emerge from the process of remediation that occurs when users create and have a close relationship with an avatar. Although different platforms allow having different types of avatars, the fact that users see them as their digital representations is the result of this remediation – digital identities do not substitute prior ones but refashion them. The identity one develops in first life will be enriched by the experience in cyberspace, and a hybrid self will emerge:

> one that conjoins (a) a modern-style individual self – one we can now call a 'virtuous self', cultivated primarily by the technologies of literacy and print, immersed in the life project of practicing, within some 'core space' of privacy, autonomy, phronesis, the virtues of patience, perseverance, as communicative virtues necessary for (b) the relational self – one widely distributed via network technologies that further entail the pleasures, conveniences, (and: infinite distractions) of secondary orality, as at least frequently open to the (lateral, if not hierarchical) surveillance of others?' (Ess, 2010: 116)

In *Second Life* the process of creating self-representational narratives contributes to identity remediation, meaning that as first life influences the identity that will be developed

for each avatar, the online experience of that avatar will also have impact on first life identities because cyberspace does not represent a cut from 'reality', but an extension of it.

Virtual environments like *Second Life* are emerging as role-playing environments, but not as traditional role-playing spaces where users perform a fictional character integrated into the game's narrative. In this virtual space users have their own characters and as so I consider that these environments may be seen as self-role-playing environments – spaces where users create not only their characters but their own self-representational narratives. This complex relationship contributes to the remediation of identities and to the emergence of new conceptions of the self. In virtual worlds like *Second Life* where it is possible to be an active social character and to contribute to the digital environment's development this remediation is more complex being simultaneous to immersion and/or incorporation processes.

To contribute to a better understanding of the role performed by new social media in their users' identity remediation, I would like to propose that these virtual lives lived through an avatar are remediated ones. The process of remediation takes place with the incorporation of technological artifacts that allow users to stay in a virtual dimension generated by computer graphics. Due to this remediation process and in order to make sense of this new reality online personae are constructed through the creation of avatars and of digital self-representational narratives. Having a life through an avatar is, then, a process of identity remediation that occurs within a digital setting. New social media may then have impact on a user's identity and as Sherry Turkle had suggested in 1995: "the internet has become a significant social laboratory for experimenting with the construction and reconstruction of self that characterize postmodern life" (Turkle, 1995: 180).

Since the launch of first digital multiplayer role-playing settings in the 70's[160] until the complex tridimensional virtual worlds of today, the process of identity remediation through an avatar had evolved, and as Julian Dibbell refers: "Four years ago, I sat down at a computer, clicked a few buttons, filled out a text box or two, and in a few short minutes created something it takes the most accomplished novelist years to produce: a fictional character with a life of its own" (Dibbell, 2007b: 3). Nowadays with technological graphic

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[160] The first online virtual environments were available through MUDs (Multi-User Dungeon) and were text-based.

development these lives tend to be associated with first life ones, even if they represent everything that users cannot be in 'real' life. Avatars are users' remediated selves which exist in an alternative dimension of human life. The process of identity remediation within virtual worlds occurs through the incorporation of technological artifacts, and according to Biocca (1997):

> [e]ach progressive step in the development of sensor and display technology moves telecommunication technology towards a tighter coupling of the body to the interface. The body is becoming present in both physical space and cyberspace. The interface is adapting to the body; the body is adapting to the interface. (Biocca, 1997: 2)

In contemporary virtual worlds the interface seems almost natural, setting the ground for what Frank Biocca calls the cyborg's dilemma – "the more natural the interface, the more we become 'unnatural', the more we become cyborgs" (Biocca, 1997: 26-27). In the following sub-chapter attention will be focused on two essential elements to understand the remediated identities developed in complex virtual social spaces like *Second Life* and that help to realize the importance of the combination human/machine: cyborg and posthuman.

1.4. Cyborg and Posthuman

> The cyborg body is the body of an imagined cyberspatial existence. […]
> The cyborg body is that which is already inhabited and through which the interface to a contemporary world is already made. Visual representations of cyborgs are thus not only utopian or dystopian prophesies, but are rather reflections of a contemporary state of being.
>
> (González, 1995: 267)

Virtual worlds are appropriate settings for witnessing the development of remediated identities. The remediation process will be more complex the more players are able to freely interact with the setting and with their own avatars. *Second Life* is a good example of the possibilities contemporary interaction environments may offer to their users. Here identities are remediated through the figure of the avatar that is not only the primary means for presenting oneself within the fictional scenario – through appearance (physical attributes and 'body-art'), but also the main medium for verbal and non-verbal communication. The combination of player-avatar then is crucial for developing an

existence within *Second Life*, once "it is through embodied practice that selves and social life are grounded in multi-user spaces" (Taylor, 2002: 60).

Despite the possibilities offered by these social platforms, the process of embodying the avatar is complex, as seen in the previous sub-chapters. It takes time to develop our own digital representatives and in spite of the possibility of having as many avatars as users like, they tend to maintain a main 'character' who grows and suffers modifications over time, and who tends to participate in long-term social groups (Yee and Baleinson, 2009; Ducheneaut, Wen, Yee, and Wadley, 2009). During the netnographic research many avatars were met who are active members of their communities and for whom *Second Life* has been a very enriching experience. The majority of interview respondents are an example of this since they stated that their (main) avatars are their digital representatives. However, they may recur to *alts* as a means for experimentation, since "[r]ole-playing environments provide a safe atmosphere for people to collectively enact new modes of self-expression and experience a sense of ego permeability while still maintaining their primary identity in the 'real world'" (Bowman, 2010: 127).

Virtual worlds play an important role as new networked media. They are digital settings made available through computer programming and technological devices, and accessed through computers with broadband internet connections. These digital environments result from the development of communication technologies that allow users to interact in cyberspace and are one of the outcomes of the 'digital revolution', being considered part of our posthuman era – an era characterized by the cyborg becoming widespread, that may assume different forms. Within these interactive environments players embody their avatars through technological devices, but they become cyborgs not only because technology plays the role of a prosthesis that extends their senses, but mainly because they become agents within this alternative social dimension. As N. Katherine Hayles proposes "it is important to recognize that the construction of the posthuman does not require the subject to be a literal cyborg" (Hayles, 1999: 4). I suggest that in *Second Life* players become cyborgs once they remediate their bodies and identities through the avatar, which means that players feel immersed and perceive their bodies as technological ones:

> The idea of 'technological bodies', however, suggests not only that the work-based and other contexts in which we live have become more technologically dominated

> than ever before, but that productive techniques and knowledge have moved inwards, to invade, reconstruct and increasingly dominate the very contents of the body. (Shilling, 2005: 173)

According to Shilling technologized bodies result both from the proliferation of cyberspace and virtual experiences, as well as from the improvements in medical and plastic surgery, both types of surgery allow the incorporation of non-human elements into patients' bodies. Having this diversity of scenarios in mind, cyborgs may be understood as "[…] cybernetic organism[s], a hybrid of machine and organism, a creature of social reality as well as a creature of fiction" (Haraway, 1991: 149). The cyborg conciliates fiction and lived experience, and according to Haraway it is a post-gender creature with the ability to transcend the main conceptual dualisms that frame our social and cultural development as masculine/feminine, culture/nature, and body/mind.

The first conceptualization of the cyborg was proposed by Manfred E. Clynes and Nathan S. Kline in 1960 in an article entitled 'Cyborgs and Space'. The cyborg presented by Clynes and Kline was characterized as an adaptive body that had the capacity to live in special conditions such as outer space, and that resulted from the upgrading of the human being into "self-regulating man-machine systems" (Clynes and Kline, 1995: 30). But as Haraway argues "[c]yborgs do not stay still. Already in the few decades that they have existed, they have mutated, in fact and fiction, into second-order entities like genomic and electronic databases and the other denizens of the zone called cyberspace" (Haraway, 1995: xix). Science fiction had welcomed and embraced the figure of the cyborg and made it an essential element of its narratives.[161] Cyberpunk novels, comics, movies and TV series have portrayed different perspectives of cyborgs since the 1960s. Among the most popular are the novels *Neuromancer* (1984), by William Gibson and *Snow Crash* (1992), by Neil Stephenson, the comic book character Iron Man (1963), the TV series *Star Trek* (1966-2005), and the movies *Star Wars* (1977-2005) and *RoboCop* (1987), for instance. The majority of these fictional works have in common a futuristic high-technological setting where hybrid figures, half human half machine, perform different roles without being restrained by biological constraints (cf. Graham, 1999, 2002, 2004; Gray, Mentor, and Figueroa-Sarriera, 1995). All these characters represent the fact that "[c]yborgs thus

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[161] For an analysis of the cyborg representation in fictional works, see, for instance: Bukatman, 1993; Fuchs, 1995; Graham, 2003; Haney, 2006; Hayles, 1999; Oehlert, 1995; Short, 1995; and Zylinska, 2002.

inhabit a world [that is] simultaneously 'biological' and 'technological'" (Graham, 2004: 13).

Fictional works were seen by many researchers as a way to study the relationship established between technology and society, once as N. Katherine Hayles proposes: "culture circulates through science no less than science circulates through culture. The heart that keeps this circulatory system flowing is narrative – narratives about culture, narratives within culture, narratives about science, narratives within science" (Hayles, 1999: 21). According to Elaine Graham, the use of fictional narratives to understand phenomena such as the emergence of the cyborg and the transition to a posthuman era is very important since the "power of popular culture and imaginative fiction (and science fiction in particular) as enduring resources through which Western societies portray their hopes and fears about futuristic humanities, the implications of technology, life on other worlds, and so on" (Graham, 2004: 22-23). Fictional works then are an important means to analyze and understand the evolution of the relationship between man and machine. Due to technological progress nowadays these fictional settings can be experienced in more immersive and interactive forms.

Following Martti Lahti's proposal that sees video games as the epitome of a "new cyborgian relationship with entertainment technologies, linking our everyday social space and computer technologies to virtual spaces and futuristic technologies" (Lahti, 2003: 158), one can also consider *Second Life* as being a relevant example of a cyborgian dimension only achievable through the re-embodiment of technological devices:

> The monitor guides us into (a perceptual and corporeal) interaction with the computer and, as a technologized form of vision, it becomes a component and extension of the body; it replaces our body, or rather extends its capacities, and becomes both a representation and source of bodily experience, thus creating a hybrid condition resonant with the cyborg. (Lahti, 2003: 164)

Computer generated open-ended worlds like *Second Life* offer the possibility of becoming a cyborg without having to 'transcend' human reality. Through the engagement with technological devices (computer and internet broad-band connection) players' bodies became part of the interface allowing the exploitation of a different dimension, one that offers new forms of being embodied (cf. Angerer, 1997; Featherstone and Burrows, 1995; and Marsden, 1996). The first 'appearance' of the cyborgian subject dates from 1968, in

the context of a project conducted by the computer scientist Ivan E. Sutherland (cf. Graham, 2004; Rheingold, 1992 [1991]; Sutherland, 1968). 'The Sword of Damocles' was the setting of the first exploration of cyberspace done through the use of a head-mounted display. Nowadays, players may become what Hayles proposes as 'metaphoric cyborgs', cyborgs resultant from "the computer keyboarder joined in a cybernetic circuit with a screen" (Hayles, 1995: 322).

In *Second Life* cyborgs take shape in the cybernetic loop that refashions traditional conceptualizations of identity into cybernetic remediated identities. I propose that these identities are constituted through the re-embodiment of users own characters that inhabit the virtual world, and interact both with the setting and other players. Which means that "[s]tanding at the threshold separating the human from the posthuman, the cyborg looks to the past as well as the future" (Hayles, 1995: 322), it remixes first life affordances with *Second Life* ones, combining previous and new experiences in a digital social setting:

> the overlay between the enacted and the represented bodies is no longer a natural inevitability but a contingent production, mediated by a technology that has become so entwined with the production of identity that it can no longer meaningfully be separated from the human subject. (Hayles, 1999: xiii)

Cyborgs are understood as being an essential element of the posthuman project (Bendle, 2002; Bukatman, 1993; Haraway, 1991; Hayles, 1995, 1999). But

> [w]hat is the posthuman? Think of it as a point of view characterized by the following assumptions. […]First, the posthuman view privileges informational pattern over material instantiation […].Second, the posthuman view considers consciousness, regarded as the seat of human identity in the Western tradition long before Descartes thought he was a mind thinking […].Third, the posthuman view thinks of the body as the original prosthesis we all learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born. Fourth, and most important, by these and other means, the posthuman view configures human being so that it can be seamlessly articulated with intelligent machines. In the posthuman, there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals. (Hayles, 1999: 2-3)

The emergence of the posthuman has fascinated researchers from several areas which contributed to different approaches and understandings of this phenomenon. One of the perspectives sees the 'post' in posthuman as the result of the superseding of the machine over the human – it foresees a world were humans will be controlled by machines. This

175

view is notably presented in the work of researchers such as Hans Moravec (1988, 1998), Michael Dyer (1994), and Marvin Minsky (1985, 2006), for instance. However, as Hayles argues, one of the main conclusions that comes from the analysis of these works is the conceptualization of information as a disembodied entity "that can flow between carbon-based organic components and silicon-based electronic components to make protein and silicon operate as a Single system" (Hayles, 1999: 2). This conception was also basilar in the studies from the first wave of cybernetics conducted by Nobert Wiener (1965 [1948], 1988) or Warren McCulloch (1988 [1965]), for example. The analysis of these works led Hayles (1999) to propose that this vision of the posthuman revalidates the liberal humanist subject – "a rational, self-regulating, free, and autonomous individual with clearly demarcated boundaries and sense of agency linked with a belief in enlightened self-interest" (Lenoir, 2002: 210-211). By arguing that the human being is embodied by nature and that this embodiment is truly complex,[162] Hayles considers that the liberal humanist subject is being rewritten into the posthuman, and that "[t]he posthuman subject is an amalgam, a collection of heterogeneous components, a material-informational entity whose boundaries undergo continuous construction and reconstruction" (Hayles, 1999: 3).

The posthuman is, then, proposed by Hayles as being the following stage of Humanism, a stage that accepts the heterogeneity of perspectives to understand the world, as well as the fluid condition of identity in a highly mediated (and remediated) world: "Humanists saw themselves as distinct beings, in an antagonistic relationship with their surroundings. Posthumans, on the other hand, regard their own being as embodied in an extended technological world" (Pepperell, 2005). The posthuman is a process, not a stable condition (Halberstam and Livingstone, 1995; Haraway, 1991; Hayles, 1999; Pepperell, 2003): "the posthuman, like the human, is a hybrid entity constructed through networks that are materially real, socially regulated, and discursively constructed" (Lenoir, 2002: 2010). The different conceptualizations needed to understand the posthuman are as important as the existence of different perspectives on the cyborg subject, this heterogeneity is key for the emergence of new perspectives to understand the human being, because it acknowledges

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[162] "What embodiment secures is not the distinction between male and female or between humans who can think and machines which cannot. Rather, embodiment makes clear that thought is a much broader cognitive function depending for its specificities on the embodied form enacting it. This realization, with all its exfoliating implications, is so broad in its effects and so deep in its consequences that it is transforming the liberal subject, regarded as the model of the human since the Enlightenment, into the posthuman." (Hayles, 1999: xiv)

that "[p]osthumans are likely to be as complex and diverse, as historically and culturally specific as humans have been" (Hayles, 2004: 316). The posthuman era does not emerge only through technological development, it emerges through the relationship and different uses individuals and societies are establishing with different technologies that contribute to extend, substitute or repair body capabilities: "Located within the dialectic of pattern/randomness and grounded in embodied actuality rather than disembodied information, the posthuman offers resources for rethinking the articulation of humans with intelligent machines" (Hayles, 1999: 287).

Computer tridimensional virtual worlds offer users the opportunity of experiencing the posthuman era without 'endangering' their human condition. The 'metaphoric cyborgs' into which users transform through their avatars coming into contact with a complex digital social space is one of the possibilities offered by computer technologies development. Technological (re)embodiment is a primal condition for becoming posthuman and due to its intrinsic characteristics *Second Life* is being developed through the articulation of human and machine. Avatars represent players graphically – they give them a bodily representation within the virtual world, but they also represent players' intentions and emotions. Within this virtual world players can be agents in a fictional setting, but

> [w]hile *Second Life* captures the imagination of individuals who wish to create new lives free from societal and physical limitations of ethnicity, gender, geography, sexual orientation or status; it still manifests significant aspects of the society (American, capitalist, gendered) from which it sprung and therefore is more reflective than transcendent. (Jones, 2006: 4)

The transformation of players into 'metaphoric cyborgs' results from the remix of first and second lives' experiences, as well as from the remix of traditional social markers and their appropriation within this digital setting. In the following sub-chapter attention will be paid to how social markers such as age, race, and gender are being remediated within *Second Life* and shaping the emergent 'metaphoric cyborgs' which inhabit this virtual world.

1.4.1. 'Metaphoric Cyborgs' and Social Markers: Age, Race and Gender

Social markers are part of human interaction, being essential to self-presentation, and having the role of identifiable labels. Social markers are shared by the members of a community, and distinguish those that belong to the community from those that do not. *Second Life* users are part of a virtual community developed within a digital environment where they are the main contributors to in-world's development. Since avatars may be totally personalized, users are responsible for the social markers they represent. Despite being a sandbox environment where is possible to be whoever one wants, observation of different social locations revealed that first life social markers are also being remediated into this virtual world. In order to understand how the 'metaphoric cyborgs' that live in *Second Life* embody social markers as for example, age, race and gender, this sub-chapter intends to characterize how these elements are being integrated into users in-world 'personal front' (Goffman, 1990 [1959]), impacting on social interaction.

Age representation is one of the less studied social markers regarding virtual worlds' research. While there is research on race and gender appropriation within virtual environments, age is a less studied feature. Nevertheless, "[i]n all societies, age is one of the bases for the ascription of status and one of the underlying dimensions by which social interaction is regulated" (Neugarten, Moore, and Lowe, 1965: 710). Within *Second Life* age representation is at first glance restricted to the possibilities offered by the appearance editing tools available, which do not contemplate age markers such as body curvature or wrinkles (Reed and Fitzpatrick, 2008). However, I consider that this obstacle can be easily surpassed if users have designing skills, or money to invest. Skilled users may create their own skins and choose which age, racial and gender attributes their avatars will have. The others may buy a skin that suits their interests and then personalize its shape. For instance, Avatar Generation Premium Skins and Shapes is an in-world store specializes in skins,[163] it offers a great variety of skins representing different ages (from children,[164] to elderly people), races, and shapes (see Figures 94 and 95).

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[163] The store is also available at *Second Life* Marketplace, the web-based platform where users may sell their items (https://marketplace.secondlife.com/) – https://marketplace.secondlife.com/stores/95864.

[164] The possibility of developing and selling children skins and shapes within *Second Life* has been polemic since Linden Lab authorized it. In order to prevent child abuse situations within its virtual world, Linden Lab had a stiff policy regarding 'ageplay'. The official statement is available at http://wiki.secondlife.com/wiki/Linden_Lab_Official:Clarification_of_policy_disallowing_ageplay.
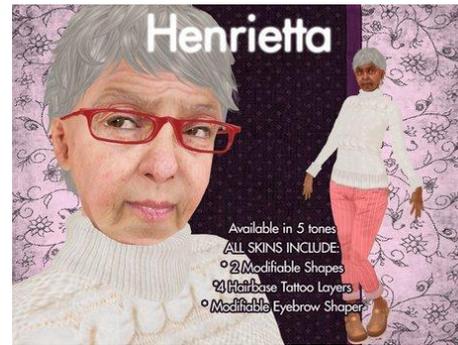
Figure 94: Example of skin for boys   Figure 95: Example of skin for elder women

Avatars do not get physically older throughout the years, nor are tied to users' first life ages. Users seem to enjoy the opportunity to remain younger, even if only within this virtual environment, and avatars age differentiation should not be considered as having the same cultural importance as it does for social interactions in first life. During the time spent in-world it became evident that the majority of avatars have the look of young adults (20-40 years old). Even among other types of avatars than human, young and elderly people are less represented. Due to *Second Life*'s complexity, it may be considered that if used as a self-presentational element of avatars, age-identity should have an important role in the definition of social rules. But as Linden Lab does not encourage age differentiation among avatars, it is difficult to fully understand the impact that this element could have for the development of this social setting. Age-identity development could be encouraged by offering elderly 'standard avatars', and/or by making available appropriate tools for editing avatars' age characteristics.

Early visions of cyberspace promoted online interaction as not being shaped by class, race or gender. This notion was overpassed; however despite the recognition that the race and ethnic background of internet users may be as important as they are in first-life interactions, race in cyberspace is still an under-researched topic (Boellstorff, 2008; Sanchez, 2010). In fact, "while gender and sexuality have been crucial to theories of both cyberspace and the posthuman, the absence of race is usually perfunctorily remarked and of little consequence to these analyses" (Weheliye, 2002: 22). In fantasy worlds like the one offered by *World of Warcraft* the representation of players' first-lives races and ethnicities is limited by in-world races characteristics, and race as a form of self-representation assumes new contours: "[r]ace has rarely been discussed in the context of games like *WoW*; in fact, if and when it comes up, it is typically a reference to the fact that

179

many of these game worlds are populated by 'fantasy races' such as elves, orks, and healers" (Kafai, Cook, and Fields, 2007: 270). But in social virtual worlds like *Second Life* where users are invited to recreate themselves through totally customizable avatars, race may assume a very important role for self-presentation and in-world interaction (Groom, Bailenson, and Nass, 2009; Harris, Bailenson, Nielsen, and Yee, 2009).

As observed regarding age representation, there is also a 'standard' defined by Linden Lab concerning race. However, this may not be so evident once appearance editing-tools allow users to better personalize racial characteristics than it does regarding age ones; and Linden Lab official discourse is devoid of race references. As argued by Carleen Sanchez (2010) "there is a pervasive blindness to color which has negative rather than positive effects for people of color" (6). Further it may be considered that *Second Life* follows the tendency already verified in other cyberspace contexts of privileging 'whiteness' over other races (Lockard, 1997; McPherson, 2000; Namakura, 2002). Unequal access to cyberspace is considered the main reason for the difference in online race representation: "people of color were functionally absent from the Internet at precisely that time when its discourse was acquiring its distinctive contours" (Nakamura, 2002: xii), and "[c]onsequently there has been a tendency to conceive virtual worlds as largely under the purview of whites" (Sanchez, 2010: 4).

Despite the possibilities offered by *Second Life* to create personalized in-world representatives, I suggest that race remain undervalued by the official narrative of this virtual environment. The non-centrality of race is visible in Boellstorff's appreciation on its role in social interaction: "Throughout the history of virtual worlds and continuing during my research in *Second Life*, the most basic way race shaped cybersociality was the assumption that residents were white unless stated otherwise" (Boellstorff, 2008: 144). However, as Sanchez highlights when sharing her experience as a Latina who wanted to take her roots into her second life experience:

> As a result, as I engage in SL, I experience a tangible erasure of being. Who I am seems difficult to replicate in *Second Life*. Since I cannot adequately signify who I am, I experience the psychosis of being an interloper, an impostor. […] Entering into SL creates a distortion, a type of cognitive dissonance since one's identity as a woman of color is largely invisible, suppressed, neglected, or erased. As a cyber-border crosser I may be able to move fluidly across the socially constructed and binding boundaries of

race, ethnicity, and gender. But the more important question is, do I want to? (Sanchez, 2010: 7-8)

When logging in for the first time users choose an initial appearance. They can choose among different avatars with different body characteristics. However, the majority of the available 'phenotypes' are recognizable as Caucasian (see Part I). Au (2008), in his reports on this *brave new world* states: "[…] the Linden team [in contrast to other virtual world developers] coded everyone who joined *Second Life* with the same DNA, so to speak (no matter how strange and diverse each of them eventually became)" (56). Once in-world users may customize appearance and define race distinctive characteristics for their digital representatives. Within virtual worlds in general, and *Second Life* in particular, first-life race is performed through skin color, hair style, body shape and 'body-art' (Schildkroupt, 2001). For those with limited edition and/or design skills, in-world avatars stores may be the solution. The majority of the stores that sell full avatars, skins, and other appearance elements (such as hair, nails, or eyes, for instance) tend to offer different race options[165] (see Figures 96 and 97).[166]

Figure 96: Example of African skin for women   **Figure 97: Example of Arab Skin for men**

Despite the simplicity of the process to buy or edit the avatar in order to represent racial characteristics, using this element as central to users' self-presentation is not a simple choice. As witnessed in first-life contexts, racism may also be present in in-world interactions. The 'supremacy' of whites in the majority of virtual worlds that offers users the possibility to fully personalize their avatars may be contributing to this behavior. And as Sanchez argues, "Performing race and ethnicity complicates avatar identity in that individuals can choose to

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[165] A simple search in *Second Life* Marketplace for items within 'Avatar appearance' category will reveal a great variety of avatars types.
[166] Examples from Avatar Generation Premium Skins and Shapes in-world store.

embody their actual racial/ethnic identity or engage in racial 'tourism' by 'passing' as a member of a different group (Nakamura, 2002)." (Sanchez, 2010: 5).

The history of *Second Life* is not shaped by racist incidents, but there were some paradigmatic episodes that could have contributed to the emergence of this virtual world as being 'color blind'. The experience lived by Erika Thereian, a blonde female avatar, "nothing less than the archetypal white girl of the world's dreams" (Au, 2008: 72) is one of them. Au (2008) reports the happening in his book *The Making of Second Life*: Erika's friend Chip Midnight designed a new black skin and asked her to model it. The intention was to show it around *Second Life* and generate sales, and "[m]any gasped in admiration when Thereian appeared in public in her Midnight skin. Some, however, did not" (*ibid.*: 73). During her in-world tour to show the skin around, Erika had an unpleasant experience. Shortly after arriving at a randomly chosen location: "One man took a look at her and announced, 'Look at the n***** b****'. Another said, 'Great, they are gonna invade SL now.'" (*ibidem*). Au recalls that she spent three months in the skin of a black woman and was astonished at other avatars reactions, mainly because is really easy to change how the avatars look. Another traumatic racist experience was lived by Methal Mohammed (2009) during her research on perceptions of Muslim women who wear a *hijab*[167] in *Second Life*:

> The site was a beach resort with a dancing spot, cafeteria, a few shade umbrellas, chairs and tables. As I arrived at the site, I walked around to have a look. I suddenly noticed that my hijab was turned right side to left. I needed to fix it. I looked for a place far away from the crowd where avatars were dancing and sunbathing on the seashore. I sat down at one of the sitting shades and started fixing my hijab. While I was busy fixing my hijab, I suddenly heard sirens and an announcement through a loudspeaker which I could not understand. However, I decided to stand up and walk around even though my hijab was still not fixed properly. As I walked few steps away from the shed, an avatar male policeman approached me, lifted his two hands up, and started strongly pushing me back. I was shocked, and unable to understand what was going on with this policeman. I just could not believe it. I was trying to protect myself, but did not know how and what to do it. I was unable to avoid the policeman avatar's hostility and aggressive behavior. He continued pushing me back, as I was stunned and paralyzed until I found myself pushed into the sea. I was sinking down, deep down into the waters. I was drowning down until I disappeared. I was 'killed'. (Mohammed, 2009: 7)

These two examples show how harassment, verbal abuse and cyber violence may be triggered by racist behaviors, and may contribute to the 'hegemony' of white avatars in *Second Life*. There are users who prefer not to have a 'colored' body in order not to be discriminated

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[167] A traditional scarf worn by Muslim women to cover the head (hair, neck, and sometimes the face).

because of their race (Au, 2008; Sanchez, 2010), and value their racial and ethnic heritage through other differentiating elements. As Boellstorff points out "[r]ace showed up in ways other than avatar embodiment" (2008: 145). Avatars' names, buildings and communities may be used to express users' first lives cultural identities. Names may not be totally personalized. As seen in Part I, residents choose their avatars' first name and must combine it with the given last names options. Each combination must be unique. Last name options tend to reflect white American or European identities (Sanchez, 2010), although there are some names with Latino and Asian inspirations, and other that are simply random combinations of letters. But the possibility of being a 'builder' of this virtual world, offers residents a greater opportunity to also perform their racial and ethnic backgrounds through the development of sites having "racial overtones" (Boellstorff, 2008: 145). Another possibility is joining with others in virtual communities organized around ethnicity or shared languages, for instance: "Communities of people based around culture and language are surfacing across SL, and many of these regions have become cultural centers, complete with shopping malls that cater to residents and visitors seeking destinations outside the Euro-centric perspective" (Johnson, 2010: 221). I consider that these examples of race and ethnicity performance highlight the fact that race should be acknowledged as an element of self-presentation even in virtual social landscapes.

During the netnographic experience lived within this virtual environment, different avatars with different body characteristics were met. Some of them were not white, and race was clearly part of their self-presentation mainly through skin color and 'body-art'. Nevertheless, the majority were indeed white – white, tall, slim and beautiful embodying the main Western beauty stereotypes. However, no racist behavior was witnessed. From the point of view of a white female 'regular' avatar, who had engaged with different activities within several locations of this virtual world, I cannot confirm that race is of such great importance for in-world interaction. However, through the literature review on race and cyberspace, and mainly on the importance of race in *Second Life* it became clear that the experience of having a second life is very different according to users' cultural backgrounds. At first sight *Second Life* may be perceived simply as being a place where users can remediate their identities through an avatar and take the chance to be whoever they want to. Yet, from the perspective of the *other*:

> I contend that for users of color there are opportunities to play with identity by performing whiteness, fantasy creatures, other genders, etc. However, assuming that

virtual worlds allow us to transcend the limitations of the body assumes that our bodies are the problem. For people of color, our bodies are not the problem, rather a history of racism, prejudice, discrimination, colonialism, and oppression is what we wish to overcome. The subtext of transcendence is that white is the norm and that given the opportunity, anyone can engage in SL without the problem of being recognized as colored by look, dialect or dress. The fantasy of transcendence is little more than the colonialist desire to remake the colonized in the image of their white masters. (Sanchez, 2010: 12)

Linden Lab's choices made *Second Life* a virtual environment where age and race are not primary social markers. But being a *prodused* world means that residents have the opportunity to contribute to its development and to add features and characteristics not projected initially. Despite not being the main social markers that influence in-world interaction, age and race are present within this virtual world, and to some users they are important elements for their self-presentation. However, I would like to argue that the social marker that seems to be most widespread in-world is gender. Gender representation was integrated into *Second Life* in two ways. First, Linden Lab designed a platform that follows first life binary perspective on gender – male/female. In the process of avatar development the choice between having a male or a female avatar is one of the first steps. But additionally to this decision, users are also invited to extend first life gender norms into this digital setting:

> […] the platform itself was built on a particular understanding of gender as an essentialized male/female binary, paying obvious attention to particular body parts deemed, particularly in our own cultural context, to be markers of sexualized, desirable and fit gendered bodies. (Gaden and Dumitrica, 2010: 141)

Secondly, users' appropriation of the avatars is mainly influenced by traditional gender stereotypes: [168] "Indeed, when it comes to the construction of the gender and sexuality in SL, the users exercise a great deal of control. These users, however, represent subjects whose identities have been formed by the way gender and sexuality are 'disciplined' in society" (Brookley and Cannon, 2009: 573). In order to grasp the role performed by gender as a social marker within this virtual environment it is, then, important to understand the relationship that is being established between gender and technology in general, and gender and virtual worlds, in particular.

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[168] Stereotypes result from a cognitive process of simplification, a category to frame reality and process information. According to Walter Lippman (1997 [1922]) stereotypes are necessary ways to make sense of the world: "For the real environment is altogether too big, too complex, and too fleeting for direct acquaintance. We are not equipped to deal with so much subtlety, so much variety, so many permutations and combinations. And although we have to act in that environment, we have to reconstruct it on a simpler model before we can manage with it. To traverse the world men must have maps of the world." (Lippman, 1997 [1922]: 20)

Gender is a recent concept; it emerged by the end of the 1960s from the need to clarify that the differences between men and women go beyond biology. While sex is concerned with biological factors, gender is socio-cultural and is expressed through how societies see men and women – which are the appropriate roles, behaviors and activities for women and men. Sex and gender dynamics became more clear due to the work developed by Simone de Beauvoir at a first stage, and Judith Butler at a second one. In *The Second Sex* (1989 [1949]), de Beauvoir set the distinction between sex and gender, and suggests that as gender is part of our identities, it is gradually developed through the socialization process: "[o]ne is not born, but rather becomes, a woman" (de Beauvoir, 1989 [1949]: 267). Setting the difference between sex and gender was seen by the first feminists as essential to prove that anatomy should not be the same as destiny, and that human beings cannot have their fate predestined just because they are born as a man or woman: "sex is understood to be the invariant, anatomically distinct, and factic aspects of the female body, whereas gender is the cultural meaning and form that that body acquires, the variable modes of that body's acculturation" (Butler, 1986: 35).

Both de Beauvoir and Butler, as well as other feminists, understand gender as being not natural, but as a social construction that mainly defines what is appropriate for each members' sex. Since it is non-natural, Butler questions: "[…] if the distinction is consistently applied, it becomes unclear whether being a given sex has any necessary consequence for becoming a given gender" (*ibidem*). In the book *Gender Trouble* (1999 [1990]), Butler further develops this reflection, stating that de Beauvoir's expression 'to become a woman' clarifies that gender is not only a social construction that is imposed to social actors, but that it should be understood as a process of self-construction (Butler, 1986: 36): "[t]o *become* a woman is a purposive and appropriative set of acts, the acquisition of a skill, a 'project' […] to assume a certain corporeal style and significance" (*ibidem*). Following this perspective, gender is seen as a cultural element that may be appropriated individually. Gender should not be seen as a legacy, a fixed identity, but as one of the components of our identities. Butler considers that gender is a set of acts, a performance each of us enacts through our lives:

> If the ground of gender identity is the stylized repetition of acts through time, and not a seemingly seamless identity, then the possibilities of gender transformation are to be found in the arbitrary relation between such acts, in the possibility of a different sort of repeating, in the breaking or subversive repetition of that style. (Butler, 2004: 154-155)

Despite being a performance enacted through time it does not mean that it must always be the same, one can transgress or adapt this performance to the different contexts of one's life. Gender then is constructed through the relationship one sets between personal experiences and socio-cultural stereotypes (Ganito and Ferreira, 2009).

Technology is one of the main social elements used to express gender roles in different societies. The main distinction has been the sphere within which technologies are used – the public or the private. Traditionally the public sphere is considered to be masculine, while the private one to be feminine: "[t]echnical skills and domains of expertise are divided between and within the sexes, shaping masculinities and feminities" (Bray, 2007:38). The patriarchal organization of most western societies has contributed to the emergence and development of gender stereotypes that associate technology with the masculine. Most of the times women are seen as being technologically unadjusted, which reinforces the stereotype that while men are close to technology, women are close to nature (Halberstam, 1991). However, as Judy Wacjman makes the point in *Feminism Confronts Technology*: "technology is more than a set of physical objects or artifacts. It also fundamentally embodies a culture or set of social relations made up of certain sorts of knowledge, beliefs, desires, and practices" (Wacjman, 1991: 141). The relationship between gender and technology then, is an almost intrinsic one (Ganito and Ferreira, 2009, 2012). This closeness may result from the fact that, according to Teresa de Lauretis (1987) gender "both as representation and as self-representation, is the product of various social technologies, such as cinema, and of institutionalized discourses, epistemologies, and critical practices, as well as practices of daily life" (de Lauretis, 1987: 2).[169]

Gender results from the combination of socio-cultural collective and individual practices and discourses. As a social marker gender plays a significant role in social interaction, but this importance was questioned when cyberspace appeared as a 'transcendent' social sphere. Notwithstanding the possibilities offered by this new social dimension, gender norms were rapidly imported into different online environments (Boler, 2007). For instance, Bruckman's research (1996) shows how gender informs interaction among MUDs' users; Kendall's

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[169] Teresa de Lauretis (1987) suggests that in order to surpass the limitations of sexual differences, gender should be thought of as 'technologies of gender'. Following Foucault's theory of 'technologies of sex' (1990), de Lauretis states that: "*The construction of gender is both the product and the process of its representation.*" (5, italics in the original).

(2002) how online forum users are 'constrained' by their first lives; and Haferkamp, Eimler, Papadakis, and Kruck's one (2012) that men and women tend to present themselves differently on social networking sites. In *Second Life*, as seen previously, gender norms are also present. Both Linden Lab and residents imprinted this virtual world with stereotypical perspectives of gender. The most evident way this is achieved is through "making the body gendered" (Balsamo, 1996: 4); however gender is also performed through social interaction. Nevertheless, there are other play-settings where gender norms and stereotypes seem to become fragile through users appropriation of avatars. T.L. Taylor (2006), for instance, argues that *EverQuest* has the potential to free female players from some of the most prevalent perspectives of femininity:

> Women in *EverQuest* are constantly engaged in playing with traditional notions of femininity and reformulating gender identities through aspects of the space that are tied directly to its nature as a game. Identity is formulated in relation to formal play elements within the world such that active engagement, embodied agency, and full participation are guiding values for men and women alike. This is a potentially radical framework and one that can challenge stereotypical forms of femininity. (Taylor, 2006: 97)

In spite of being inscribed with first life gender norms, *Second Life* allows its users to appropriate the avatars and the digital setting. Though, I suggest that this appropriation resulted in the pervasiveness of highly gendered avatars, and a virtual world imprinted with gender stereotypes. Among the cultural practices of "making the body gendered" the tendency seems to be to mark digital bodies with first life perspectives of what is recognized as being masculine and feminine. One of the first things noticed since the beginning of this research was indeed that users tend to follow the path set by Linden Lab and to organize 'their' virtual world around the binomial male/female.[170] Masculinity is represented by muscular and strong bodies, while femininity by full-figured, attractive ones. Even among representatives of races other than human, avatars' bodies are often used to perform gender. The stereotypic representation of avatars bodies is reinforced by one of *Second Life*'s main activities – commerce. Clothing and body parts are desirable commodities, and the majority of the avatars seem to invest in their appearance. The most common way to present the products to customers in in-world shops is through advertising boards. It is possible to showcase them with mannequins, but advertising boards are not only easier to design and cheaper, but they

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[170] This tendency was also verified by Boellstorff (2008), Gaden and Dumitrica (2010), and Johnson (2010), for instance.

also 'occupy' fewer *prims*. Dumitrica and Gaden (2009, 2010) state that this is a powerful way to reinforce in-world's norms of appearance, and that

> […] this normative gender discourse is intrinsically connected to the prevailing vision of gender within our RL social context, since designers often choose (whether consciously or not) to play upon stereotypes to make their products appealing and we, as users, draw upon the conventions and understanding of our RL experiences. (Gaden and Dumitrica, 2010: 140)

In the majority of the advertising boards gender stereotypes are reinforced. Avatars are often hyper-gendered and hyper-sexualized, but women tend to be more frequently associated not only with sensual bodies, but also with sexiest products. I would like to argue that a visit to the apparel section of *Second Life Market* makes clear that products tend to be presented differently for men and women, and also that, for instance, women's shoes are often used as gendered products (see Figures 98, 99, 100, and 101).

Figure 98: Men jeans advertising board, designer Kal Rau[171]

Figure 99: Women jeans advertising board, designer Kal Rau[172]

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[171] https://marketplace.secondlife.com/p/kal-rau-Blue-JeansMesh/3054793
[172] https://marketplace.secondlife.com/p/Girls-Jeans-TEMPLATEFULLPERM-by-Kal-Rau/924322

Figures 100 and 101: Men and women shoes advertising boards, respectively, designer HOC Industries[173]

In *Second Life* not only bodies are marked with gender recognizable attributes. The majority of the in-world locations also reinforce a binary perspective on gender. As Boellstorff (2008) draws attention to, for instance, "the default animations for sitting differed for women and men; men sat with their legs spread apart slightly, while women's legs were closer together" (141). Besides sitting scripts, during the observation phase it was also noticed that the scripts that animate objects to be used by pairs tend to offer two poseballs,[174] one blue and the other pink making clear what should be the position assumed by male and female avatars. In the majority of the social locations it was noticed that this differentiation is almost always respected by the users, as shown by the following field notes' excerpts:

> The most populated area of France Pittoresque is the beach. The majority of the avatars are performing pair or group activities. There are available different poseballs for sit or lay in different types of chairs and hammocks, they all differentiate between male and female postures. The majority of the avatars respect these colors – male avatars tend to use blue poseballs to assume a specific position, and female avatars the pink ones. (Field notes of the visit to France Pittoresque, June 26, 2010 [second phase])

> Blue Note Retro Jazz Lounge is a jazz club where visitors can try different dance styles, and play different instruments. Dance poseballs define the position that should be taken by male and female avatars. During the visit all avatars that experiment these poseballs followed its 'use codes'. (Field notes of the visit to Blue Note Retro Jazz Lounge, June 23, 2010 [second phase])

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[173] https://marketplace.secondlife.com/p/HOC-Industries-Skoochers-2/1673807 and https://marketplace.secondlife.com/p/HOC-Industries-Noir-Stilettos-sculpted-metal-spike-stiletto-shoes/1804491

[174] "A poseball is a common kind of scripted object in *Second Life*, appearing as a round colored sphere. Their purpose is to play an animation on the avatar that sits on them." (description available at *Second Life Wikia*, http://secondlife.wikia.com/wiki/Poseball, 28/06/2012).

189

As the majority of the avatars tend to follow what is defined when an interaction script is created, it was not evident what the consequences might be for not respecting these 'genderscripts'.[175] In general, and at first glance, there are no consequences. Sitting poseballs mainly stipulate avatars sitting positions, as characterized by Boellstorff (2008), but since, for instance, the Blue Note Retro Jazz Lounge offered dance poseballs it was a good opportunity to walk in male avatars' shoes and check the difference in male and female dancing positions (see Figures 102 and 103). The examples presented are the results of 'sitting'[176] at a poseball scripted to slow dance. One of the most interesting aspects of this experimentation was the fact that the posture foreseen for the different genders differs not only in body language, but also in facial expression. The female avatar assumes a romantic and contemplative expression, while the male a more determined and sensual one. Despite being imprinted with 'genderscripts' these poseballs may be used both by male and female avatars even if the 'script' is not followed. However, from my experience, when one decides to 'transgress' what was predefined by the creators, the other users present tend to call attention to the 'disobedience'.

Figure 102 and 103: Research avatar trying male and female dancing poseballs, respectively

I would like to propose that social interaction among avatars is influenced by all these gendered perspectives. Well designed and attractive avatars seem to be the norm, and users

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[175] Genderscript is phrase proposed by Ellen van Oost to represent the process through which technological artifacts are inscribed with gender stereotypes: "[…] genderscript refers to the representations an artifact's designers have or construct of gender relations and gender identities – representations that they then inscribe into the materiality of that artifact. Like gender itself, which is defined as a multi-level process, gender scripts function on an individual and a symbolic level, reflecting and constructing gender differences in the division of labor." (van Oost, 2003: 195)

[176] In order to perform the scripts inscribed in the different poseballs available in-world, one must sit on them, despite being sitting poseballs or to perform other type of actions.

are confronted with this daily. The most visited locations tend to be filled with this type of avatar, and through the participant observation it became evident that pretty avatars tend to socialize more – to take part in social interactions, and to perform more group activities, than the simpler and/or not so 'perfect' ones. Evaluating the appearance of one's avatar and comparing it to others is almost inevitable since the default perspective players have of this virtual world is from a third-person point of view. One can choose to see the world literally from an avatar's standpoint using the option of having a first-person perspective, but it is easier to get used to the avatar from the default one. Gaden and Dumitrica (2010) consider that this perspective confronts users with their own bodies' representation, and from their experience: "we were confronted with our own physicality almost every moment we spent 'in-world'. This persistent visibility of our virtual selves reminded us of when we did or did not 'fit in' with the picture and how we might be able to work on our avatar bodies" (142).

I suggest that *Second Life* may be understood as a technology of the gendered body (Balsamo, 1996). It is an immersive communication technology that allows users to create their digital representatives and to imprint them with their own perspectives on gender, and according to Johnson (2010) "[g]ender play is much more popular than experimenting with skin color, unless one is interested in a non-human color, like blue" (221). Despite the prevalence of first life gender norms and stereotypes, which contribute to the persistence of hyper-sexualized avatars, transgressing these rules is always an option, since in-world users are free to be whoever they want. The most common form of transgression is not to subvert traditional gender roles and stereotypes, but to experiment with gender-swapping. A study that compared avatar personalization in three virtual worlds – *Maple Story*,[177] *World of Warcraft*, and *Second Life* (Ducheneaut, Wen, Yee, and Wadley, 2009), concluded that gender-swapping[178] is particularly usual in *Second Life*, where a larger number of male players are said to have at least one female avatar. Perhaps this form of transgressing and playing with gender reflects, after all, the desire of freedom from first life constraints. Even though, this transgression ends up strengthening gender stereotypes. I consider that there may be two reasons for this, on one hand male users may appropriate female avatar bodies and

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[177] http://maplestory.nexon.net/
[178] Since the integration of voice in different in-world locations gender-swapping became more complex than 'only' embodying a female avatar. If users wish to keep their first lives sex a private issue that they prefer not to take to cyberspace, then they must avoid voice-enabled destinations.

deliberately imprint them with the attributes they usually appreciate most. Or, the dominant perspective of gender is their main reference point, and even in a virtual world where they have the opportunity to play the role of the other gender, the easiest way to deal with this situation is by taking common sense perspectives into the digital space. In any case, the fact that "[h]ypergendered and hyper-sexualized identities are prevalent in SL, […] is in itself a starting point for discussion about gender and society" (Boudreault and Moser, 2007: 4).

Despite representing Linden Lab's stereotypic visions on age, race, and gender, *Second Life* invites residents to explore the possibilities offered by an online digital setting where players may create all they want and interact with each other. In this virtual world users are taking the chance of becoming 'metaphoric cyborgs' to be free of age constraints, and almost free of race constraints. However, I consider that they remain highly influenced by gender stereotypes, which calls attention to the fact that "[…] bodies are maps of power and identity. Cyborgs are no exception." (Haraway, 1991: 180). The remediation of first life social markers into this virtual space for social interaction evidences that what Anne Balsamo predicted in the 1990s turned out to be true: "It is just as likely that these new technologies will be used primarily to tell old stories – stories that reproduce, in high-tech guise, traditional narratives about the gendered, race-marked body" (Balsamo, 1996: 132).

The possibility of articulating both dimensions of users' lives makes *Second Life* an important communication and interaction *medium*. Players are using this virtual world not only for entertainment reasons, but mainly for commercial and economic ones. For instance, it is possible to work in this fictional world and use the salary to pay first life expenses; or to buy land to create official spaces of universities and use them for e- or b-learning purposes, or as a setting for international workshops, conferences or symposiums. Due to *Second Life*'s complexity, in the following chapter attention will be focused on the way cultural identity is performed within this virtual world. The first step will be to understand how *Second Life* is used by its residents and constituted as a public-private social space. I consider that an analysis of the social uses of *Second Life* will help to better comprehend how cultural identity is transformed in virtual worlds, as well as to characterize *Second Life*'s own emerging culture.

II. Cultural Identity in a New Social Space

> The Matrix is everywhere, it's all around us, here even in this room. You can see it out your window, or on your television. You feel it when you go to work, or go to church or pay your taxes. It is the world that has been pulled over your eyes to blind you from the truth.[179]

> (Wachowski and Wachowski, 1999)

The Matrix is a new social dimension of human life. After the humanity had collapsed during the twenty first century, machines took control and to overcome the downfall of planet Earth reality began to be remediated by computer simulations. Human existence was transposed from first to second life permanently. The fear of the dominance of machines over humans is a recurrent approach in scientific fiction narratives. In *The Matrix* the worst prediction was consummated, simulation was blended with reality and a new social space was developed. A space where community members are highly controlled by 'system's patrols' and where freedom is a utopia.

Alternative social spaces were one of the first results of allowing university students to access Arpanet, during the 1970s. Bulletin board systems, Multi-User Dungeons, and internet message boards were developed and used as gathering places. For the first time some computer users were able to meet online and interact with each other despite being geographically separated. These first online interactive experiences evidenced the social character of the internet and its potential as a new mean of communication. With internet development its social and collaborative character became one of its main characteristics: "[e]lectronic communications do not offer a utopia, but they do offer a unique channel for publishing and communicating, and the power to publish and communicate is fundamental to democracy" (Rheingold, 1998). Unlike what happens in *The Matrix*, and what was predicted by some deterministic technology researchers, the development of digital technologies did not result in the supremacy of the machine over human, but in the creation of a new dimension for social interaction – cyberspace.

Cyberspace emerges as a new communication sphere, a multimodal one (Castells, 2008). The different platforms that constitute the World Wide Web offer different experiences; and having a more individual or collaborative experience depends on the platform's

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[179] Morpheus explaining Neo that reality is being remediated by the Matrix.

architecture. Multi-user spaces such as chat rooms, social networking sites or virtual worlds, where visitors may easily acknowledge the presence of each other, allow a stronger sense of co-presence (Ikegami and Hut, 2008: 3), which makes them appropriate settings for the emergence of virtual communities – "[...] social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace" (Rheingold, 1993: 5). These social relationships established and maintained within cyberspace result from the will of bonding essential to human beings (Cooley, 1983). However, virtual communities deny in their essence one of the preconditions considered vital for the development of communities – geographical proximity and/or "being rooted in the same geographical/local place" (Becker and Mark, 2002: 22). Nevertheless, and unlike Becker and Mark (2002), I would like to argue that this characteristic does not make virtual communities more fragile, rather it makes them different from those based upon face to face interaction:

> [i]n terms of the way the whole system is propagating and evolving, think of cyberspace as a social petri dish, the Net as the agar medium, and virtual communities, in all their diversity, as the colonies of microorganisms that grow in petri dishes. Each of the small colonies of microorganisms – the communities on the Net – is a social experiment that nobody planned but that is happening nevertheless. (Rheingold, 1993: 6)

Virtual communities allow users to interact with each other in highly mediated settings and through different forms of communication. Online communities result from engagement with collective practices and their nature depends on their purpose: "[v]irtual communities might be real communities, they might be pseudocommunities, or they might be something entirely new in the realm of social contracts" (Rheingold, 1996: 418). Open-ended virtual worlds as immersive environments give users the possibility of constituting complex virtual communities (see, for instance, Baym, 1995; Becker and Mark, 2002; Dibbell, 1998; Rainie and Wellman, 2012; Reid, 1996; Sherman, 2011; and Wellman and Gulia, 1999), and *Second Life* is an example of how numerous small communities are being settled and together contributing to the emergence of a co-created virtual world (see, for instance, Antonijevic, 2008; Boellstorff, 2008; Johnson, 2010; and Sixma, 2009).

The goal of this chapter is to understand how users' social interaction within *Second Life* is contributing to the emergence of a remixed (and remediated) cultural identity shared by the members of this virtual world. In order to achieve this objective it will be examined how

communities are formed within virtual worlds, and then the particular case of *Second Life* will be analyzed. To understand the emergence of smaller communities within this digital environment it is essential to recognize it as an alternative social space, since "[i]t is the existing structure of social relations that drives people to repurpose [digital] technologies and create spaces for private and public expression" (Papacharissi, 2002: 21). I suggest that to realize how users are getting organized it is essential to acknowledge that there is an emerging cultural identity shared by the residents of this virtual settlement. In the second sub-section attention will focus on the social use of space in this virtual environment, in order to verify how *Second Life* is seen by its users as being part of their public and private realms of experience. Being part of the universe of the World Wide Web, a networked *medium* where the boundaries between private and public are blurred through collaborative practice (Bakardjieva, 2003; Markham and Baym, 2009; Papacharissi, 2002; Rosenberg, 2010; Thorseth, 2003), makes *Second Life* and other virtual worlds hybrid spaces where users develop their online private and public lives. This duality will be analyzed, with the aim of understanding how residents are organizing their remediated lives in *Second Life*, once "[a] global public sphere is [being] built around the media communication system and Internet networks, particularly in the social spaces of the Web 2.0" (Castells, 2008: 90).

2.1. Sharing a Cultural Identity in *Second Life*

Cultural identity may be defined as the different forms of belonging to a collectivity, a group of friends, or a national group. Cultural identity is not normative, but it is intrinsic to the participants of a given culture that share cultural elements as well as ways of living and experiencing the world. As seen in the previous chapter, identity is one of the essential elements of the human condition, and is being researched by scholars from different scientific backgrounds. One of the first times that the 'question of identity' was made public (in the sense that was socially shared) was in Sophocles' *Oedipus Tyrannos* (*Oedipus the King*), performed by the first time in 429 BC. The quest for identity is the main thematic of this Greek tragedy, the need to understand who he is, is the trigger for Oedipus actions. Identity, then, frames who we are, it is the connecting element that stands between us and the society to which we belong. Therefore it may be argued that identities emerge from the 'narrativization' of the subject (Mendes, 2005: 491). Boaventura de Sousa

Santos states that as identities may also be defined as meaning negotiations, one cannot assume that it is possible to achieve a state of 'complete identities'; identities are shaped through on-going processes and are influenced by individual and collective experiences (Santos, 1994: 119). Thus, identity is not an innate element, but one that is socially, historically, and psychologically constructed:

> […] 'belonging' and 'identity' are not cut in rock, that they are not secured by a lifelong guarantee, that they are eminently negotiable and revocable; and that one's own decisions, the steps one takes, the way one acts – and the determination to stick by all that – are crucial factors of both. (Bauman, 2004: 11)

And as Stuart Hall argues, identities are, then, "constituted within, not outside representation" (Hall, 1996: 4), which means that the process of identity development is framed by our own representation systems – "The construction of identities uses building materials from history, from geography, from biology, from productive and reproductive institutions, from collective memory and from personal fantasies, from power apparatuses and religious revelations" (Castells, 1997: 7). In this sense, culture emerges as a fundamental element in the process of the constitution of identity. The centrality of culture in contemporaneity is so evident that Alain Touraine proposes that a new paradigm is needed to understand our globalized world, a paradigm centered on cultural questions.[180]

Culture is "a whole way of life, material, intellectual and spiritual" (Williams, 1993: xvi), human beings cannot be 'non-cultural', there are always references that shape our cultural identity because, as Clifford Geertz defends "man is an animal suspended in webs of significance he himself has spun" (Geertz, 1973: 4). According to Geertz's semiotic perspective, culture is materialized in those webs. Culture may well be perceived as "[…] what "create[s] [a] space where people feel 'safe' and 'at home', where they feel a sense of belonging and membership" (Flores and Benmayor, 1997: 15). Culture is what gives us a sense of belonging.

Traditionally, cultural identities emerge through the sharing of common cultural elements such as geographical locations, national backgrounds or other collective experiences.

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[180] Throughout Western history we have had different paradigms to understand the world. In the 18th century the dominant paradigm was the political, with the industrial revolution it shifted and an economic-social paradigm emerged being dominant until the end of the 20th century. The globalization phenomena and the rise of network societies contributed to a deep change in the world's organization and the need for a new paradigm became more and more evident, and Touraine argues that this new paradigm should be a cultural one (cf. Touraine, 2007: 1).

Notwithstanding, I would k«like to argue that nowadays the constitution of a culture is not only dependent from what exists within geographical proximity, also new communication and information technologies, as well as better means of transportation, contribute more often to interpersonal and intercultural contacts. From those contacts result new influences, and if they persist over considerable periods of time they may result in processes of cultural hybridization, as proposed by Néstor Canclini:

> Ya no basta con decir que no hay identidades caracterizables por esencias autocontenidas y ahistóricas, e intentar entenderlas como las maneras en que las comunidades se imaginan y construyen historias sobre su origen y desarrollo. En un mundo tan interconectado, las sedimentaciones identitarias (etnias, naciones, clases) se reestructuran en medio de conjuntos interétnicos, transclasistas y transnacionales. Las maneras diversas en que los miembros de cada etnia, clase y nación se apropian de los repertorios heterogéneos de bienes y mensajes disponibles en los circuitos transnacionales genera nuevas formas de segmentación. Estudiar procesos culturales es, por esto, más que afirmar una identidad autosuficiente, conocer formas de situarse en medio de la heterogeneidad y entender cómo se producen las hibridaciones. (Canclini, 1997: 55)

Canclini conceptualized hybrid cultures within the scope of Latin American emerging culture, a culture that is being remixed through the articulation of popular and high cultures (Canclini, 1990). This hybridization results from migratory phenomena within the same national territory, the exodus from rural to urban areas, and from the broadcasting of an emergent hybrid culture through the mass media. Despite its well contextualized origins, it may be considered that the phrase 'hybrid cultures' is an important one not only to understand Latin American cultures, but other remixed cultures such as those that are emerging through technologically mediated intercultural contacts. Cyberspace may be seen as an appropriate space for the hybridization of cultures since it allows people from all over the world to establish different types of mediated relationships. Nonetheless, not all social spaces available within cyberspace allow the same type of interaction. The more collaborative and interactive the gathering platform, the more solid will be the ties set between participants. Virtual worlds like *Second Life* may, then, be perceived as suitable spaces for the remediation of cultural identities, mainly because this virtual world "now harbors numerous small communities; casual, loose, and ephemeral, but yet lively enclaves of communicative spheres" (Ikegami and Hut, 2008: 2). In order to understand how hybrid cultural identities may be developed within *Second Life*, I would like to suggest that first it is necessary to acknowledge the importance of residents getting organized in communities and/or interest groups, because "small scale group activities and their resulting tiny but

active publics form the basis for the unique potentiality for creating new public spheres in the age of cyber-globalization" (*ibid*.: 12).

2.1.1. Virtual Communities

From a sociological point of view a community is a group of people that live in a shared location or that share something considered important by all members, such as a religion, race or occupation. Among the different conceptualizations of community I consider that those proposed by Ferdinand Tönnies, Benedict Anderson and Zygmunt Bauman show how the concept has evolved throughout History, and also that even though there is not a consensus regarding what is a community, the term remains useful (Baym, 2010). The German sociologist Ferdinand Tönnies analyzed and compared two different types of social formations that occur through human interaction – community (*Gemeinschaft*) and society (*Gesellschaft*). In his influential work *Gemeinschaft und Gesellschaft*, from 1887, he argues that the premises underlying the constitution of communities are spatial proximity, consanguinity, and a way of life, while that underlying the existence of societies is the existence of common goals (cf. Tönnies, 2001 [1887]). Tönnies proposes communities as being a more instinctive form of people coming together and societies as a more rational and functional one. Anderson, on the other hand, considers that there is nothing organic about communities, they emerge from shared rituals and practices. Therefore he suggests the concept 'imagined communities' to characterize the communities that emerged from the convergence of capitalism with print technology during the 18th and 19th centuries (cf. Anderson, 1999 [1983]). Anderson argues that communities are imagined once the sense of belonging shared among their members is constructed through socio-cultural narratives; rituals, traditions and other cultural practices are part of what ties a community together.

Zygmunt Bauman's reflection upon the role of communities in our liquid modernity is centered on the idea of community as a refuge, a place where we feel safe: "community is a 'warm' place, a cozy and comfortable place. It is like a roof under which we shelter in heavy rain, like a fireplace at which we warm our hands on a frosty day" (Bauman, 2003: 1). Bauman considers that a community is built upon interaction and sharing among its

members and that "no aggregate of human beings is experienced as 'community' unless it is 'closely knit' out of biographies shared through a long history and even longer life expectation of frequent and intense interaction" (*ibid*.: 47-8). These three perspectives, despite being different, highlight that social communities are based on some preconditions. These preconditions are not fixed, they have been adjusted to fit modern societies' needs and reflect the fact that contemporary life is becoming more individual, and less shaped by communal practices (Bauman, 2000, 2003, 2005; Giddens, 1991). Among the main preconditions that frame current communities are the persistence of members' identities, a shared narrative, the existence of social conventions, common interests, a collective rationality, a shared geographical location, and the continuity of the group over time (Becker and Mark, 2002; Giddens, 1990; Kollock, 1998; Kollock and Smith, 1998). Nevertheless, with the 'massification' of networked technologies changes in most social, cultural and economical structures are being witnessed. For the first time it is possible to interact not only with people from all over the world and with whom one may never have a face to face contact, but also with different people, in different online locations, in real time. Mediated communication allows us not only to reach different places, but also to reach people regardless geographical distance:

> The digital age is distinguished by rapid transformations in the kinds of technological mediation through which we encounter one another. Face to face conversation, landline telephone calls, and postal mail have been joined by email, mobile phone calls, text messaging, instant messaging, chat, web boards, social networks, photo sharing, video sharing, multiplayer gaming, and more. (Baym, 2010: 1)

Our social networks can now be expanded and diversified due to mobile and computer-mediated forms of communication. It may be considered that cyberspace is evolving into a 'third place' – "a great variety of public places that host the regular, voluntary, informal, and happily antecipated gatherings of individuals beyond the realms of home and work" (Oldenburg, 1999 [1989]: 16). Whithin cyberspace internauts seek not only the comfort of public spaces that foster interaction and group formation, but also ideal spaces for individual practices that despite being public are part of users' private lives.[181] Online communication is, then, nurturing proximity through different types of social platforms, and as Rheingold emphasizes "[w]hen a group of people remain in communication with one

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[181] In the following sub-chapter it will be discussed how cyberspace is being understood by internet users as a public-private social space.

another for extended periods of time, the question of whether it is a community arises" (Rheingold, 1996: 418). When reflecting upon the personal connections people establish in the digital age, Nancy Baym proposes that "[d]ifferent technological platforms do lend themselves to different sorts of group formations, and differences in digital affordances lead to differences in group behavior" and that "[t]he mere existence of an interactive online forum is not community" (Baym, 2010: 74). In order to characterize what community means in the scope of the present research, I suggest that it is necessary to understand it in comparison with other groups' formations organized in cyberspace, and which will be referred to as interest groups. Interest groups and communities can be similar, both are more based on shared interests than on shared social characteristics (Wellman and Gulia, 1996); but in communities the interaction among members is likely to continue over a longer time (Baym, 2010).

Online gatherings vary in purpose, extension and forms of interaction. The way users get involved with a specialized forum's activities, or with a thematic mailing-list is not similar to that experienced through social networking sites like *Facebook*, microblogging communities on *Twitter*, or when one is a resident of a virtual world. Social platforms then lead to different group formations according to its nature and main characteristics. Nevertheless, it may be argued that virtual communities are more easily established through platforms that offer a rich interaction and communication experiences. The more interactive and collaborative the platform the higher is the possibility of it being used to foster communities. So, it seems that virtual communities are getting organized around similar preconditions to those existing in first life. At first glance, a major difference between on and offline communities is rapidly identified – the sharing of a geographical location. However, despite being digital, cyberspace is perceived by most of its users as 'material': "Most online groups are not so tied to geographical space, yet people who are involved in online groups often think of them as shared places" (*ibid.*:75). As in first life, virtual communities' longevity is based on sharing, trust and establishing close interpersonal relationships (Castronova, 2005; Krotoski, 2010; Smith, 2010; Song, 2009; Taylor, 2006).

I consider that in *Second Life* the difference between interest groups and communities is very important to understanding the world's organization, and how cultural identity is being developed and shared among residents. According to Tom Boellstorff (2008: 183-185),

despite the official designation for any residents' aggregation being a group, there are two different types of groups within this virtual world: formal groups officially linked to *Second Life*'s platform, and informal ones based on the sense of belonging shared by its members. These two types of social formations will be called interest groups and communities, respectively. Groups may be free to join, or require an invitation or the payment of a fee. Once one joins a group one can make that information public, by having the title of the group above avatar's name. Member-only locations may be only accessible to those who are part of the group, and who have that information made public. When one belongs to a group, that information becomes registered in the avatar's profile and may be used to build interest networks. Interest groups can be organized around places such as night clubs, stores or gardens; shared interests like helping newbies, philosophy or music, or identity categories – educators, people with disabilities, or associated with sexual orientation.[182] These groups can vary greatly, but must have at least two residents,

> got a moderatable group chat, at least two (and up to ten) roles with different abilities and are able to own land and items. Members in special roles can send notices to all group members and can create proposals where others are able to vote. Any Resident can be a member of up to 42 different groups.[183]

The second type, the informal groups correspond to virtual communities, which can also be understood as subcultures of this virtual world (Boellstorff, 2008). These communities tend to have formal groups within them. During the time spent in *Second Life* it was realized that the difference between groups and communities is evident, despite being unofficial. The majority of the visited locations were owned by groups of residents. Even though they are officially called groups, most of them may be perceived as communities, once residents share not only a virtual land,[184] but cooperate in its management and development, as well as develop shared narratives through frequent social interaction. During the observation period it was realized that among the most prominent and respected communities of *Second Life*'s world are role-playing, religious, 'newbie friendly' and game-based communities. Role-playing communities are diverse, but *furries*, goreans and vampires are among the most popular.

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[182] Some group-locations visited during the observation period had available the possibility of joining 'local' interest groups. Some examples are New Citizens Inc., an interest group associated with Kuula New Citizens Incorporated island; The Shelter, from the location with the same name; and Dragons Wyrms Wyverns & Hatchies, a group formed by members of Isle of Wyrms.

[183] http://wiki.secondlife.com/wiki/Group#Roles (accessed January 2012).

[184] Virtual worlds allow a spatial understanding of community through their semi-physical realities (cf. Baym, 2010: 76).

Concerning religious communities, remediated versions of first life communities are common – Catholic and Anglican religions are the most present, and it is even possible to attend masses and religious services in-world. There are also religious and spiritual communities that only exist virtually. 'Newbie friendly' communities seem to be truly appreciated by residents; during the observation these places were among those with the most visitors. The goal of these communities is to welcome and help newcomers, and it is common to find social and learning spaces in its official spaces, as well as freebies. The groups of interest born within these communities tend to have large numbers of followers, while the 'heart' of the community is formed by a more limited number of residents. Game-based communities can also be very diverse. The number of gaming communities and spaces is increasing,[185] and the most common theme is medieval fantasy, like the one experienced at Avilion Mist.

Despite their different purposes, I would like to argue that these communities are based on the sense of belonging developed through the sharing of common narratives that frame residents' second lives. As they are different in nature, they may be defined either as communities of practice, or as communities of play (DeKoven, 1978; Pearce, 2009; Pearce and Artemesia, 2006). Regarding communities of practice,

> This way of defining community […] shifts the ground of definition from either language or social structure per se to the engagement of actors in some project. A family or domestic group is a community of practice in this sense, as is a sports team, a work crew, a neighborhood organization, a church congregation, the crew of a ship, members of an agricultural cooperative, and members of an academic department. Because some endeavors last longer than others, communities so defined clearly have different durations and arise under different circumstances. And because we all engage in multiple group endeavors at any time and throughout our social lives, we are members of multiple communities. (Hanks, 1996: 221)

As most of the time being part of a community within *Second Life* involves owning a shared piece of land and developing it in order to fulfill the communities' needs, it may be considered that the majority of *Second Life*'s communities are communities of practice, even those game-based. Nonetheless, game-based communities are at first place communities of play:

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[185] Linden Lab seems to be adjusting its strategy and in December 2011 launched a game-based island – Linden Realms: "Complete quests, find adventure and earn virtual currency in Linden Realms, a new game inside *Second Life*! Can you collect all the crystals?" (more information available at http://secondlife.com/destination/linden-realms-portal-violet).

> The play community shares a strong social connection, as well as a mutual play style that is both inclusive and flexible, and can be transformed and relocated as needed to sustain the group. Different communities of play have different characteristics that arise out of the combined play styles of the individuals within them, each of whom is in turn transformed by the group play style. These play styles are also both influenced and transformed by the spaces they are enacted in. (Pearce and Artemesia, 2006: 315)

Community is a key-element to understanding *Second Life* as a virtual society. Despite being heterogeneous in-world communities do not contribute to the virtual world's fragmentation: "the existence of communities [does] not prohibit a sense of simultaneously belonging to *Second Life* as a whole" (Boellstorff, 2008: 185), on the contrary, I suggest that it makes the existence of different communities the essence of a shared cultural identity among *Second Life*'s residents, as will be seen in the following section.

2.1.2. *Second Life*'s Cultural Identity

Virtual communities within *Second Life* have their own rules and goals. Community cultural identities are shared by their members, and are contributing to the emergence of a globally shared cultural identity within this virtual environment. Through the netnographic research it was possible to analyze which are the primordial elements of this emerging shared cultural identity, and it was realized that in spite of being a highly mediated experience that takes place in a dematerialized location, cultural identity formation within *Second Life* seems to follow first life 'rules'. The organization of in-world's social structure around communities and interest groups is essential to the sense of belonging. Nevertheless, as the results of the interviews revealed, residents seem to feel sensorially involved not only with their communities, but also with the platform as a whole:

> Avatar 3 [furry]: Yes. I know many different people and they are not all furries. I spend a lot of time here but every now and then we meet in 'neutral' locations.

> Avatar 9 [human]: I have lots of friends. I meet a lot of people because of my work, and some of them are really interesting people. When the talk is good I usually keep in touch with them. Is good to know someone to hangout and have a nice talk for a while.

> Avatar 15 [human]: Yes, a few. Now I don't 'go out' as much as I used to but I meet a lot of people here. I have some friends that come here, have a coffee and stay around.

The majority of *Second Life* users, prior to being members of specific communities are residents of this virtual world. All of them needed to learn how to behave and interact in-

world. Linden Lab tutorial islands are helpful in order to learn some basic skills, but the greatest part of social skills can only be learned through observation and experimentation. As in first life, elements such as clothing and appearance tend to be shared within closed (or semi-closed) communities. The shared body-art elements play the role of identifiers, helping to distinguish who belongs to a certain community. But there are other cultural elements that are shared by *Second Life*'s population as a whole – territorial boundaries, a monetary unit, specific uses of language, and behavioral rules.

Regardless of being digital, territorial boundaries are part of this virtual world. At a macro level those boundaries are clear because each avatar can only exist in *Second Life*, which means that it is not possible to visit other online virtual worlds embodying *Second Life*'s representatives. On a micro level they can be experienced as being more diffuse mainly because of the possibility of teleportation; but when residents make use of the mapping tools available, they perceive that despite being fluid, *Second Life*'s territory is restricted. Territorial boundaries are reinforced by the existence of a single monetary unit in-world – the Linden Dollar. As all commercial transactions must be done using Linden Dollars, users need to exchange first life currencies through Linden Lab exchange platforms (available in *Second Life*'s official website or in-world) to have access to Linden Dollars.[186] *Second Life* inhabitants have multiple national backgrounds and consequently different mother tongues. As verified in other online contexts (Crystal, 2003 [1997], 2006 [2001]), English also performs the role of *lingua franca* in-world (Boellstorff, 2008: 154). The share of English seems to be more a utilitarian decision, than a cultural trace, notwithstanding there are some uses of the language that have become cultural, as in the use of neologisms to refer to some virtual world particularities. An example of this is the use of words like *av*, *alt*, or *rez,* meaning avatar, alternative avatar and to 'materialize objects' in-world, respectively. The use of these words may be witnessed not only through in-world interaction, but also through the analysis of complementary communication tools used by the residents as blogs, wikis and forums.[187] After language specificities I consider that it is necessary to look at implicit behavioral rules established among residents. These

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[186] In the third part of this research the role money performs in *Second Life*'s socio-cultural structure will be analyzed.

[187] See, for instance, Gwyneth Llewelyn's blog – http://gwynethllewelyn.net/, *Second Life*'s Wiki – http://wiki.secondlife.com/wiki/Main_Page, or forums – http://community.secondlife.com/t5/Forums/ct-p/Forums.

rules are complementary to those defined by ToS, but more centered on avatar-avatar interaction. The majority of role-playing communities have their own intrinsic rules, but there are a small set of rules that prevail all over the digital world, for example greetings, personal space and disclosure regarding first life. Greeting is a very evident social rule. From my own experience, I learned that when arriving at a location where other avatars were present one should greet them publically. Most times I have been greeted before I am able to greet. Local-based thematic communities tend to be more welcoming than other not so structured locations. For example, when visiting Epiphany Island and the Heart of Brightness Temple of the Buddha of Light and Freedom I had two very different experiences:

> When I arrived at Epiphany Island there were three avatars talking in the chapel. Above their heads was the indication that all of them belonged to the Anglican group Hora et Labora. This interest group was founded by the island's proprietors. When I entered the chapel all of them greeted me. I returned the greeting. One of them welcomed me and offers help in case I need something. Another tells me that they usually get together in the library, and if I need something that will be the right place to begin searching. (Field notes of the visit to Epiphany Island, April 23, 2010 [second phase])

> When I arrived at Heart of Brightness Temple of the Buddha of Light and Freedom three more avatars were there. They were gathered in the exterior zone of the temple, standing and talking with each other. As soon as I got closer one of them said hello. I responded. Then the other two said hi! They stopped talking when I got closer, and as the conversation between us did not develop from the initial greeting I continued my journey in this location. (Field notes of the visit to Heart of Brightness Temple of the Buddha of Light and Freedom, June 16, 2010 [second phase])

In both cases avatars were polite and acknowledged my presence. But Epiphany Island members were more welcoming and made me feel more welcome to hang around their island. Personal space is not an element that is so evident, and in order to acknowledge it, it is necessary to spend some time in-world and to experiment with social interactions in different locations. Previous research on *Second Life* and other virtual social environments showed that personal space is a key element of avatar-avatar interaction (Bailenson, Blascovich, Beall, and Loomis, 2003; Friedman, Steed, and Slater, 2007; Gilles, 2006; Yee, *et al*., 2007). From my own experience it was also possible to conclude that the more crowded a location is, the easier it becomes to witness personal space protection. And that interpersonal distance varies according to interpersonal ties – distance tends to be lower the better avatars know each other. The more intimate the avatars are not only does the distance diminish, but non-verbal communication becomes more complex and affection

tends to be revealed through different gestures, such as those involving physical contact. Lastly, the third basic behavioral rule is to avoid asking much about first life. During the netnographic research, nationality seemed the only element of first life avatars share more easily:

> There were seven avatars at the Coffee Shop. The two female avatars sat by the window were alone. The other five were sat at a table talking. The group asked me to join them and to have a cup of coffee. I accepted. We 'talked' for a while using the 'public' chat. During the conversation I told them that I was conducting research on social interaction in-world. They looked interested and asked some questions, they seemed curious about which places I had chosen to observe. Then one of them asked me where I was from. I answered, as did they. After this moment the topic shifted to recommended destination in-world, based on the sharing of individual experiences. (Field notes of the visit to The World of Hogwarts, April 27, 2010 [second phase])

A shared cultural identity is being developed by *Second Life* residents. Despite most of them belonging to 'local' virtual communities, they are firstly residents of this virtual world. Cultural identity is being nurtured through collaborative and individual practices, and is remixing first life and second life components. As seen in Part I, geographical and spatial organization illustrates this fact, but this tendency is also verified when attention is centered on avatars and their shared practices. In the following sub-chapter the impact that this emerging cultural identity is having in social space organization will be further explored. The goal is to understand how this virtual world is perceived by its users within the public-private dimension of cyberspace, and to verify how a shared common location embedded with remediated social rules is resulting in its implicit division into public and private spaces. Later, in Part III, the interaction specificities of *Second Life* will be further examined. The analysis will be centered on how interaction rituals are being developed and performed within this digital setting.

2.2. *Second Life* as a New Public-private Social Space

> Cyberspace is public and private space. It is because of these qualities that it appeals to those who want to reinvent their private and public lives. Cyberspace provides new terrain for the playing out of the age-old friction between personal and collective identity; the individual and community.
>
> (Papacharissi, 2002: 20)

The development of cyberspace emphasizes the fact that it is perceived in a dual way, as a private and as a public sphere. While online, users may perform private and public actions according to their wishes, and use the communication channel of their choice. Examples of private practices are the use of e-mail or Instant Messaging tools – when one sends an e-mail or talks with someone through IM one is using a private form of communication, that can be one-to-one, or one to more than one but in a private way.[188] Public practices are evident through the development of blogs, forums or the use of social networking sites. These social platforms are conceptualized by Castells (2007, 2008, 2009) as mass self-communication systems: "networks of communication that relate many-to-many in the sending and receiving of messages in a multimodal form of communication that bypasses mass media and often escapes government control" (Castells, 2008: 90). The new collaborative and social platforms may blur the dichotomy between private and public spheres, nevertheless Jones (1997) considers that even before the development of these tools, one should consider cyberspace as a 'new public space' where people articulate "traditional mythic narratives of progress with strong modern impulses toward self-fulfillment and personal development" (Jones, 1997: 22).

The internet is an information and communication medium that contributed not only to a shift in the individual and collective practices of its users, but also to the growth of a social phenomenon that Bakardjieva (2003) designates by 'immobile socialization'. This proposal is based on the concept of 'mobile privatization' presented by Raymond Williams (2003 [1974]) to characterize the influence that new technologies had in the transition of middle class families from a predominant presence in the public sphere to a private one:

> This complex of developments included the motorcycle and motorcar, the box camera and its successors, home electrical appliances, and radio sets. Socially, this complex is characterized by the two apparently paradoxical yet deeply connected tendencies of modern urban industrial living: on the one hand mobility, on the other hand the more apparently self-sufficient family home. The earlier period of public technology, best exemplified by the railways and city lighting, was replaced by a kind of technology for which no satisfactory name has yet been found; that which served an at once mobile and home-centered way of living: a form *of mobile privatization*. Broadcasting in its applied form was a social product of this distinctive tendency. (Williams, 2003 [1974]: 19-20; italics in the original)

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[188] One-to-many in this case refers to the possibility of sending e-mails to more than one recipient, or to have a group private talk through IM.

By 'immobile socialization' Bakardjieva (2003) intends to stress the role new media perform in the hybridization of private and public spheres. The internet provides a setting where users may participate in the different actions taking place in cyberspace, which can be private and/or public, and reachable through individual media practices. The word 'immobile' was chosen to illustrate that users did not need to leave the private realm of their homes to engage with other people and entities in cyberspace. However, the context of internet access is becoming more and more mobile with the 'massification' of smart phones and tablets, for instance. Despite this change, it may be considered that 'immobile socialization' remains a useful concept to understand the social meaning of the internet, that in spite of being mobile, new interaction contexts remain private. Then, I would like to propose that the most important element is not where people access the internet, but how they perceive that access, once "[p]eople plan and experience their social action as combining privacy and publicness in different proportions" (*ibid.*: 310).

In order to understand the impact that the internet and cyberspace are having in the redefinition of private and public spheres of action it is important to clarify what is meant by private and public spaces. The private sphere is the one related to the individual and is symbolized by the figure of the 'home'. The home is "a protected zone for the individual and family, where the curiosity of outsiders can be excluded, and family matters can be dealt with in secret, secluded from the outer world" (Hansson, 2008: 16). Despite the changes witnessed in the role and privileges of the private sphere during History, the role of private spaces is acknowledged by the Western societies of the 21st century. The public sphere, on the other hand, seems to be changing. Habermas was the first scholar to characterize with detail the emergence of a 'bourgeois public sphere' in the eighteenth and nineteenth centuries, and its decline during the twentieth. Through his analysis, Habermas proposed the public sphere as the domain of our social lives in which public opinion is formed:

> The bourgeois public sphere may be conceived above all as the sphere of private people come together as a public; they soon claimed the public sphere regulated from above against the public authorities themselves, to engage them in a debate over the general rules governing relations in the basically privatized but publicly relevant sphere of commodity exchange and social labor. (Habermas, 1993 [1962]: 27)

The public sphere is constituted by the members of a society and their will to publicly participate in political and strategic decisions. Habermas's conceptualization highlights

that rational discussion among individuals is essential for them to get organized against the oppressive forms of political power (Kellner, 2000). The public sphere is, then, shaped through the different forms of promoting this discussion – like the organs of information and political debate materialized through the printing press, and institutions of political discussion, official and unofficial ones such as parliaments, political clubs, salons or public assemblies. Habermas considers that the 'bourgeois public sphere' that was so important for societies development in 18th and 19th centuries became more and more disintegrated throughout the 20th with the substitution of public discussion spaces by mediated ones, once "[t]he world fashioned by the mass media is a public sphere in appearance only" (Habermas, 1993 [1962]: 171).

The Habermasian conceptualization of the public sphere was highly debated by scholars from different backgrounds. One of the most prominent criticisms is the fact that Habermas proposes the public sphere as a unique, closed interaction sphere that did not foresee the possibility of evolving hand in hand with societies and with interaction and communication technologies. Contemporary approaches to the public sphere point to the importance of digital technologies, that are promoting not the emergence of an active and rational public sphere in Habermas's sense, but overlapping public spheres compounded by different (and unequal) publics (Boeder, 2005; Breese, 2011; Castells, 2008). Concerning this alteration, Kellner (2000) proposes that

> in the contemporary high-tech societies there is emerging a significant expansion and redefinition of the public sphere comprising new sites of information, discussion, contestation, political struggle, and organization that include the broadcasting media and new cyberspaces as well as the face-to-face interactions of everyday life. (279)

Instead of contributing to the collapse of the public sphere, mass and networked media may be contributing to the emergence of more vibrant and active public spheres than ever. One of the particularities of these public spheres is the fact that they are being developed mainly within the articulation of private and public dimensions of individuals' lives. Breese (2011) considers that despite the difference, contemporary public spheres remain public spheres, and that instead of looking at what makes them different from the bourgeois one, one should understand them as being diverse in aspects like scale and content (cf. Breese, 2011: 132-133). Public spheres range from face to face to symbolic or mediated interactions; and from political public spheres to civic public spheres. The

continuum between face to face and mediated public spheres aims to distinguish between a public organized through co-presence[189] and one constituted around the emergence of symbolic and mediated public through the reach of television, internet and social networking technology. The continuum between political and civic public spheres, on the other hand, is organized around the dichotomy between public and private life, the political public spheres are concerned with State related questions, and the civic ones with the organization of individual people into communities of practice. According to Breese's proposal, political public spheres include "social movements, media that monitor and criticize the state, and groups that take political action" (136), while civic public spheres are based on the development of civic and voluntary associations, and social clubs – "[t]he gathering of individuals into a social community creates civic public spheres" (142).

In the context of mediated contemporary interaction settings I suggest that it is necessary not only to understand the internet's general impact on the remediation of public and private spaces, but also the role virtual worlds may have as appropriated places for individual and collective practices. Being 'materialized' through cyberspace makes *Second Life* a public space accessible to all that want to enter this alternative social realm (McKee and Porter, 2009; Rosenberg, 2010). In the case of this platform its degree of 'publicness' is even higher once its access is free. Nevertheless *Second Life* is also part of the private dimension of a users' life because it allows residents to develop their own representatives, as well as their individual identities in-world. This sense of privacy is reinforced by anonymity that "assists one to overcome identity boundaries and communicate more freely and openly" (Papacharissi, 2002: 16). I would like to argue that the appropriation of this virtual world by residents shows that the dichotomy public/private is not only inevitable, but also essential to its social development, as it does in first life (Weintraub, 1997).

The division of *Second Life* into public and private spheres may not be evident for newcomers. Its public character is easy to perceive, once its territory is mainly compounded by spaces accessible to the public. However, despite being available to all users I suggest that not all these places are part of *Second Life*'s public sphere; there are many that do not foster social interaction, nor contribute to the emergence of political

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[189] It is interesting that Breese (2011) includes among face to face contacts those performed through avatars in real time, and considers, for instance, *Second Life* as a space for face to face interaction.

public spheres or to civic ones. In order to understand how this virtual world is evolving it is necessary to consider the existence of at least two types of public spheres – one more political and other more civic, as well as a private sphere. In-world's mass media play an important role in the formation of public spheres, they facilitate the emergence of an informed collective consciousness (Sherman, 2011). First life media digital counterparts available in *Second Life* cover almost all forms of mass media; there are *Second Life*-based radio and television stations, magazines, and newspapers. Among those we find *IndieSpectrum Radio*,[190] *Tree TV*,[191] *Best of Second Life Magazine*,[192] and *The Metaverse Journal*,[193] for example.

Second Life's public spheres are fostered in public places with the capacity to host a large number of avatars. Usually these places resemble Oldenburg's 'third places' (1999 [1989]), informal meeting places where friends and strangers get together. These places may be coffee shops, stores, or gardens; more important than their nature is whether they are inviting and appropriate for social interaction. The existence of political public spheres becomes more evident in crisis periods, and they may be framed by in-world events, or by the remediation of first life ones. As seen in the analysis of *Second Life*'s development in Part I, the history of *Second Life* is marked by different 'crisis' moments, and during those moments residents got together to discuss and decide how they should deal with situations like the Copybot incident, or the War of the Jessie Wall. Nowadays there are fewer events like these, but from time to time residents make their opinions clear, mainly through organized protests against Linden Lab policies like those that took place outside the entrance of the Linden Estate Services office in-world in October 2008.[194] First life events may also trigger in-world demonstrations and should also be seen as a relevant element for the formation of *Second Life*'s political public spheres. I suggest that the remediation of first life events into this virtual world reveals that one should understand these settings as

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[190] A radio station focused on the broadcast of music produced by *Second Life* artists. Additional information available at http://www.indiespectrum.com/ (accessed November 2011).

[191] Tree TV was formerly called *Second Life* Cable Network, that produces programs in and about *Second Life*. More information available at http://www.treet.tv/ (accessed November 2011).

[192] The Best of *Second Life* Magazine is a monthly publication only available in-world. More information at http://secondlife.com/destination/best-of-second-life-magazine (accessed December 2011).

[193] This newspaper aims to cover virtual world's evolution, and is mainly focused on *Second Life*. Additional information available at http://www.metaversejournal.com/ (accessed Decemebr 2011).

[194] More information about this incident available at Wagner James Au's blog New World Notes – http://nwn.blogs.com/nwn/2008/10/lost-in-the-voi.html (accessed December 2011).

alternative spaces where a social and political collective consciousness may be disseminated and shared among residents, and not only as spaces for 'fiction-based' interaction. Some examples of these public acts are the digital counterpart of 'Occupy Wall Street' movement,[195] or the Egyptian uprising against former President Hosni Mubarak.[196] Despite collective mobilization to fight for avatars and users' rights, these political public spheres are not always obvious; the most evident forms of public organization among residents are civic public spheres. As discussed in the previous sub-chapter communities and interest groups are among the most prominent forms of social organization in-world. Civic public spheres emerge from users' organized social interaction, but not all communities are part of these public spheres because some of them are closed and for members-only, they seem to be understood by their members as private. It may be considered that only communities that have a public representation through community developed islands, websites, blogs or pages in social networking sites, for instance, are part of in-world civic public spheres. Some examples of communities that are contributing to the development of in-world civic public spheres are the members of the Residents Help Network – Help Sandbox, Hobo Helpers, Mental Mentors, New Citizens, Inc. (NCI), Phoenix Wave Team, Second Ability Mentors, Virtual Ability, and White Tiger Mentors. This network is composed of different help and newcomer friendly communities that aim to engage newcomers in the world of *Second Life* by helping to teach them how to take advantage of the different possibilities offered by this virtual social environment.

Second Life's private sphere, on the other hand, becomes obvious when some time is spent traveling the world. The existence of a private dimension within a public virtual world may seem strange, but in fact residents nurture the possibility of having 'private lives': "many *Second Life* residents express a desire for privacy in terms of private places, private conversations, and private information" (Rosenberg, 2010: 28). One of the most obvious symbols of the quest for privacy is the existence of many private infrastructures that resemble houses – and "houses range from freebie cabins to mansions, to houseboats and skyboxes" (Johnson, 2010: 83). Apart from the 'physical' presence of homes all over the

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[195] More information available in New World Notes blog, at http://nwn.blogs.com/nwn/2011/10/occupy-wall-street-second-life.html (accessed October 2011).
[196] The New World Notes blog also covered this event – http://nwn.blogs.com/nwn/2011/01/egyptians-in-second-life.html and http://nwn.blogs.com/nwn/2011/02/egypt-protest-in-second-life.html (accessed April 2011).

world, I suggest that there is another aspect that reflects the need to feel secure and of having a personal space in-world, the functionality associated with each avatar called 'teleport home'. This function reachable through the platform's menus, allow users to define the place from where they enter the world, or to where they would like to be automatically teleported to from any location. The location chosen as being 'home' is often used as the place where users leave their avatars resting when they log out (*ibid*.: 84-85). Virtual homes are often private and some are protected from 'intruders' with security systems made of 'ban lines' that don not allow unauthorized avatars to get close to the 'protected' building. Others are open to visitation, in most of these cases the owners have a private 'skybox' floating above the house. This option is common because it does not involve additional costs, since users own not only the delimited spot of land they bought, but also the space between the ground and the sky. I consider that the presence of houses within this virtual world evidences the desire of residents to feel safe and at home. Houses are often furnished with the same elements as first life ones, Johnson (2010) considers that this shows that "residents seek spaces in which to retreat when they feel that they need a moment of solitude or privacy. It serves as a place to dress, to privately chat with friends, and to call their own" (*ibid.*: 84).

Second Life is emerging as a particular social space. Due to the high degree of freedom Linden Lab offers residents regarding territory management, this virtual world is being developed as a 'complete' alternative sphere for mediated interaction. As *Second Life* is a web-based platform, it may be considered that it is emerging as a remediated space appropriate for avatar-avatar interaction. This means that not only is it a virtual world available in the public-private space of the internet, a space where private and public interactions may take place through individual and collective practices and where "the private/public boundary is often perceived as fluid" (Rosenberg, 2010: 27); but it is being organized around its own public and private spheres. I consider that by being co-created by users it reveals their need to organize their lives, even 'second' ones, around the dichotomy public/private (Weintraub, 1997), and through the analysis of this platform I realized that as in first life, public and private spheres perform different social roles within this digital environment.

III. Cultural identity in *Second Life*: Some Concluding Remarks

The second part of the present research was focused on the analysis of the processes through which cultural identity is being refashioned in the virtual world *Second Life*. The main goals were to understand the relationship established between users and their avatars, and how these relationships are modeling the constitution of a complex digital setting for social interaction. In order to accomplish the defined objectives this part was organized around two main chapters – 'Cyberspace and identity', and 'Cultural Identity in a New Social Space'. Both chapters were divided into thematic sub-chapters. This second part was grounded on the combination of the data collected through observation with those data collected through the informal interviews.

In the first chapter the process of identity formation within *Second Life* was analyzed. First it was important to define what is considered to be the four essential axes in understanding this process – the development of virtual self-representations in the figures of avatars; the role performed by self-representational narratives; the remediation of users' identities; and the importance of the combination the human-machine through the analysis of the 'cyborgian' nature of avatars as users representatives within a posthuman technological dimension. To get a better understanding on how virtual self-representations are developed within this digital environment the first to be analyzed were the processes of immersion, agency and transformation experienced within virtual worlds, and then the importance of embodying the avatar. When reflecting upon the immersion process that occurs during the period users are getting familiar with *Second Life*, it was considered important to draw a distinction between the different experiences lived by users and *produsers* – immersion and incorporation, respectively. Both represent a close relationship set with the digital environment, as well as both resulting from the possibility of agency and transformation offered by this interactive setting. However, one should acknowledge the existence of a difference in the relationships these two types of citizens establish with this virtual world. In order to analyze the (re)embodiment of the avatar, those considered to be the main elements of this process were defined: to customize the avatar, use it as the main media to interact with other users, and to update the public profile. I suggested that the body and profile are the main tools users have to present themselves to others and may influence

their social interactions. The way users look and present themselves may be perceived as the basis for the development of self-representational digital narratives.

Self-representational narratives perform a key role in the formation of remediated identities. It was argued that if they are explored within the scope of virtual worlds one realizes that they are vital, it is through them that avatars' individual stories are told, reinforcing the role players may have as citizens of a dematerialized world. As seen in the second subchapter, *Second Life* encourages the development of complex self-representational digital narratives by allowing the articulation between characters, settings, events and individual and collective trajectories. From the first-hand experience of this virtual world, it was concluded that the process of narrative construction begins with the selection of avatars' gender, initial appearance and name; the second stage is the personalization of the avatar; and the last one is defined by the confidence users have in managing the platform and the avatar from a more technical point of view. In order to comprehend how different types of residents develop different self-representational narratives, it was necessary to articulate informal interviews' answers regarding *Second Life*'s meaning and the role users play in-world with the characterization presented on the first part on the different categories of residents. From this comparison it was possible to conclude that *Flâneurs* are the ones who tend to take advantage of *Second Life* as a social space that offers the opportunity of having new digital, intercultural and interpersonal experiences; *Newbies* are newcomers that look to experiment and explore the virtual world before defining what their role in-world will be; and *Creators* look forward to contribute to the virtual world's development.

Digital self-representational narratives are an essential element for the consolidation of online characters, as are the primordial elements for the process of identity remediation experienced within virtual worlds. Due to its intrinsic characteristics I consider that *Second Life* may be seen as a self-role-playing environment, because it is a setting where users may not only create their own avatar, but also their own self-representational narratives. As a result of the complex relationships users are establishing within this platform it was argued that it is an appropriate environment for identity remediation, as well as the emergence of new conceptions of the self. It was proposed that within *Second Life* this remediation process occurs through the incorporation of technological artifacts that allow

users to have a 'physical' and active existence in a computer-generated environment, as well as through the capacity users have to transform the virtual environment through their individual and collective experiences. The realization that identities may be remediated led to *Second Life* being considered as a suitable space to witness the constitution of 'metaphoric cyborgs' that are part of a posthuman dimension of users' lives. As seen earlier the cyborg combines fiction and lived experience, and in *Second Life* this mixing is an essential aspect of the in-world experience. One may consider that the transformation of players into 'metaphoric cyborgs' results from the remix of first and second lives' combined with technological reembodiment. From first life, users seem to take, mainly, key social markers for social interaction as gender and race.

After analyzing the constitution of remediated bodies and identities within *Second Life*, the second chapter was focused on the impact that these processes are having in the formation of an in-world's cultural identity. To better understand the mechanisms that are leading to the emergence of a shared collective identity within this virtual environment, the focus was on the role performed by virtual communities and interest groups as preferential settings for collective practices. During the time spent in *Second Life* it was realized that individual and collective experiences are contributing to an emergent in-world's cultural identity. On one hand communities tend to reinforce their own collective identities through elements such as body-art (mostly in the case of role-playing communities) and shared experiences. On the other hand, there are cultural elements that are shared by *Second Life*'s population as a whole: territorial boundaries, the Linden Dollar, specific uses of language, and behavioral rules, like greetings, personal space and disclosure regarding first life. The last sub-chapter explored how this emerging cultural identity is shaping social space organization, the conclusion was that the way residents are using *Second Life* is contributing to its constitution as a public-private space within cyberspace. Cyberspace was already understood as a public-private social space, now one is witnessing its remediation within this virtual world. The involvement of users with *Second Life* resulted in its organization around its own public – political and civic, and private spheres.

In the third part of this research it will be shown how social interaction is taking place within this co-created environment. It will begin by discussing what it means to interact virtually and how the social life of avatars is developed, and subsequently the social interaction rituals that

frame in-world's interaction will be characterized. This analysis will be centered on the role of social performance and on the emergence of an alternative understanding of social structures as economy and law.

PART III: IN-WORLD INTERACTION

I. Interacting Virtually

Social interaction within the Matrix is mainly characterized by being orderly. The programming code which sustains reality is also responsible for defining the values, skills, and beliefs of the Matrix inhabitants. Despite the absence of free will, humans are still social actors, and social interaction remains a central aspect of daily life. In spite of being controlled by machines, inhabitants of the Matrix live organized, and apparently normal, lives. They have jobs, families, and communities. They have their own networks of belonging. Nonetheless, in this parallel dimension there is no freedom, nor space for creativity, there is only space for the established rules. And for those who escaped from this alternative reality, and are fighting to set humanity free, the goal is a world without rules or boundaries.

The futuristic perspective presented throughout *The Matrix* trilogy is based on the idea of virtual reality as being highly controlled. The virtual representatives of the 'encapsulated' human bodies are imprisoned within the Matrix, and are not directly managed by their first life counterparts. The perspective of technology as having the potential to set humans free from biological constraints is reversed, and technology is seen in these movies as being highly restrictive.

Contrary to *The Matrix* perspective on technology, nowadays the social potential of information and communication technologies is one the features users appreciate most, and mobile and online communication are more and more part of their daily lives. However, media scholars have been concerned with the impact those technologies may have in users lives. Traditional and new media have been extensively analyzed and two main positions regarding their social impact emerged: one that argues that this impact is negative and that the media contribute to social isolation, and the other that despite the potential of traditional media to contribute to a certain degree of social isolation, online media are

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[197] By the end of the movie, after defeating Agent Smith, Neo warns the Matrix that the battle is not over, they will keep fighting to show the rest of the humanity that the Matrix is not real.

contributing to the formation of social networks and virtual communities. The first perspective was consolidated in Robert Putnam's *Bowling Alone: The Collapse and Revival of American Community* (2000). Through the extensive analysis of more than four hundred thousand interviews Putnam shows how American society is becoming increasingly disconnected not only from the democratic structures, but even from family, friends, and neighbors. He draws evidence on how Americans are bowling alone, and suggests that this isolation results from changes in work and family structures, in social organization, and also from the massification of television and computer technologies. Accordingly, for Putnam the time spent with passive activities such as watching television, or with impoverished online social interactions has been increasing at the expense of time spent on essential community-building activities.[198] The take that defends the potential of internet-based media and online communication to foster social interaction has been developed focusing on different media forms. Web 2.0 technologies, like social networking sites and virtual worlds, are contributing to the consolidation of this perspective, since different studies have shown that one of the main reasons people connect online is social interaction (Dutta, Dutton, and Law, 2011; Smith, 2011; Zickuhr and Madden, 2012). The internet's capacity to connect people was not only recognized with the emergence of web 2.0 social technologies. Since the inception of the commercial internet some researchers have been arguing that this new *medium* can foster the formation of social networks and personal communities (Wellman, 1997; Wellman, 1999; Wellman and Gullia, 1999; Wellman and Hampton, 1999).

I would like to propose that one of the main problems with both perspectives is the fact that they present traditional and new media as homogenous categories – all traditional media forms, as well as all new media forms, as having the same potential to engage or disengage users in socially-rich activities. In traditional media forms the existence of an active audience participatory role is not so common, but if one thinks about internet-based technologies the possibility of being a *produser* increases. Nevertheless, as Bakardjieva (2005) notes, online technologies enable a wide range of activities: searching information, using asynchronous and synchronous communication technologies (like e-mail, and instant

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[198] Despite strongly defending in *Bowling Alone* (2000) that online connections do not contribute to the increasing of social capital, in 2004 Putnam reconsiders his position, and ends up recognizing that the formation of social networks through the internet can lead to a greater social engagement (Putnam, Feldstein, and Cohen, 2004: 293).

messaging and chat), downloading files, or getting immersed in tridimensional virtual worlds, for instance. These different activities offer different degrees of engagement and should not be considered as having the same social potential. I would like to argue that virtual worlds like *Second Life* assume a hybrid role as promoters of social interaction. As discussed throughout Part II, these digital environments have the potential to foster the formation of social networks connecting users in different ways. However, as will be seen in the next sub-chapter on the social life of avatars, "online games are popular not [only] because of the direct social interaction they offer, but the persistent social ambience they provide – the appeal of being 'alone together'" (Ducheneaut, Yee, Nickell, and Moore, 2006).

Despite making available digital environments where users are able to be either socially active or isolated, the potential interaction with others, physically distant but virtually close, is one of the distinctive characteristics of massive multiplayer online games in general. Due to the importance of social interaction for the complexity and persistence of these virtual worlds, Steinkuehler and Williams (2006) suggest that they should be perceived as 'third places' (Oldenburg, 1999 [1989]) for informal sociability:

> By providing spaces for social interaction and relationships beyond the workplace and home, MMOs have the capacity to function as one form of a new 'third place' for informal sociability much like the pubs, coffee shops, and other hangouts of old. Moreover, participation in such virtual 'third places' appears particularly well suited to the formation of bridging social capital (Putnam, 2000), social relationships that, while not providing deep emotional support per se, typically function to expose the individual to a diversity of worldviews. (Steinkuehler and Williams, 2006: 886)

Ray Oldenburg (1999 [1989]) argues that daily life should be balanced between three dimensions of experience: the domestic (the first place), the work (the second place), and the social (the third place). The third place is the new public sphere, and I suggest that it is organized around what Edward Soja proposes as the 'trialectics of spatiality' (1996). In order to make sense of the complexity of contemporary public spaces, Soja argues that one should see them as resulting from the combination of three types of spaces: the conceived, the perceived, and the lived spaces (Soja, 1996). This hybridization of space rejects the duality of firstspaces and secondspaces, and their restricted and antagonistic perspectives of space as only being material or subjectively constituted. According to Soja, thirdspace involves a space within which:

> [*e*]*verything* comes together [...] subjectivity and objectivity, the abstract and the concrete, the real and the imagined, the knowable and the unimaginable, the repetitive and the differential, structure and agency, mind and body, consciousness and the unconscious, the disciplined and the transdisciplinary, everyday life and unending history. (Soja, 1996: 56-57, italics in the original)

Thirdspaces are in-between spaces resulting from the effects of a changing culture. Due to their growing importance I would like to propose that virtual worlds can be perceived as thirdspaces. Despite not being physical spaces, virtual worlds have a geographical dimension which indicates that the users conceive space as being 'material'. In order to get immersed users need to achieve the willing suspension of disbelief and to subjectively conceive the space they inhabit through the avatars. And virtual worlds become cultural spaces when users get socially engaged with each other and develop networks of belonging. In order to better understand this spatial dimension of virtual worlds one must see them as resulting from the articulation of the different conceptions of space characteristic from late modernity. I consider that Oldenburg's proposal of classifying the variety of public spaces that host gatherings of individuals as third places is aligned with Soja's idea that social space must be a lived space.

Oldenburg (1999 [1989]) identifies eight distinctive characteristics of third places: they are neutral grounds, assume the role of levelers,[199] within these places conversation is the main activity, accessibility and accommodation are priorities, there are regulars who contribute to their essence, third places assume a low profile, there the mood is playful, and they are a home away from home (Oldenburg, 1999 [1989]: 22-41). Third places are considered neutral grounds where individuals can enter and leave without permission, or without being invited as it happens in private places. They assume the role of levelers since the status of individuals in their workplaces, or in society at large, should not have importance within these locations. While in third places the main focus of activity is conversation, they foster verbal social interaction. In order to be considered third places these locations should be easy to access, and accommodate those who attend them, as well as the regulars. The regulars are key figures of these locations; they assign meaning to these places attracting newcomers. Another attribute is the fact that they are low profile: they are intrinsically

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[199] Despite Oldenburg's classification of third places as levelers it is difficult to acknowledge the existence of a public place where social stratification is totally absent. The distinction among those who are 'regulars' and those who do not is already a form of setting a distinction. In virtual worlds this limitation to their ability to be levelers also applies.

homely and have no pretensions. Within these locations the general mood is playful, "[s]ometimes the playful spirit is obvious, as when the group is laughing and boisterous; other times it will be subtle" (Oldenburg, 1999 [1989]: 37-38). Third places are understood by their visitors as a home away from home, they embody the five home-defining traits proposed by Seamon (1979): they are rootedness, people develop feelings of possession, they allow individuals to regenerate, to have feelings of being at ease, and are warm.

Steinkuehler and Williams' (2006) comparison between the defining features of third places and of two massive multiplayer online games – *Asheron's Call*[200] and *Lineage*,[201] reached the conclusion that these alternative social spaces have the potential to be transformed into third places. Following their discussion, I would like to suggest that virtual worlds in general may have the essential characteristics to be considered third places. This proposal is also based on the recognition of the social potential of *Second Life*. The first aspect is that I would like to point out is that all game environments should be perceived as being neutral grounds once players have no obligation to play, and they can log in or log off as they wish. Despite the existence of social norms within these environments, there is an absence of 'entangling obligations', which contributes to the prevalence of informal social interactions. Within these virtual worlds success is not related to out-of-game status, but to in-game talent, wit, and hard word, and this is the reason why one can see them as being a sort of levelers. However, as seen in Part I, this does not mean that social stratification is absent of these settings. Social stratification does exist, but the opportunity for success is the same for all players regardless their first life status and roles.

The role played by conversation seems to be very similar both in online and offline social locations (Cherny, 1999; Steinkuehler, 2006). Third places should also be accessible and "one may go alone at almost any time of the day or evening with assurance that acquaintances will be there" (Oldenburg, 1999 [1989]: 32). Virtual worlds are persistent and players are able to go online and interact with each other at any time. Like first life third places, virtual worlds also have periods throughout the day when they are sought after

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[200] http://ac.turbine.com/
[201] The first *Lineage* universe is not available anymore, but the *Lineage* franchise is still growing. The game world available now is *Lineage 2* (http://www.lineage2.com/en/).

by larger numbers of people – populations are larger in the evening,[202] but there is always someone at any given hour, since there are players from different time zones. I would like to suggest that the accommodating nature of virtual worlds is clear, once it is possible to reach these social environments without having to leave the comfort of the home. The user is able to log in whenever he wants; sometimes he may have scheduled community activities requiring him to be online in a given period of time. But these activities are not the most common; from my in-world experience, activities tend to be organized depending on who is online and on what these users are in the mood for. Despite always being reachable virtual worlds are only accessible to those with adequate computer systems, and that can afford not only the equipment but also the games' subscriptions. In the case of *Second Life* the access is free, but if users aim to be active contributors to this world they would need to pay for *Premium* accounts.

The regulars are essential elements for the constitution of third places. They imprint these places with meaning, contributing to their atmosphere. According to Steinkuehler and Williams (2006) there are two types of regulars that contribute to the social ambiance of virtual worlds: guild members, which may be also understood as community members,[203] and squatters. Squatters are those who appropriate public spaces available in game worlds and use them as gathering points for their communities, or groups. Both types are important to transform the digital settings in recognizable social spaces. Moreover, I would like to propose that the only defining characteristic of Oldenburg's third places that does not have a direct correspondence to the affordances and attributes of virtual worlds is having a low profile. Oldenburg contends that third places are ordinary, but in my opinion game worlds are not ordinary at all, they are spaces where reality meets fantasy, places where humans are allowed to live virtually through the development of a virtual representative. However, as Steinkuehler and Williams (2006) call attention to not all territories within a tridimensional game setting are alike, some are more fantastic than others. In *Second Life*, for instance, despite the fantasy element being present in a large

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[202] My experience was that *Second Life* logged in population is larger in the evening (GMT, winter time, and GMT+1, summer time). Nevertheless, research work conducted by researchers from different time zones also refers to the evening (in a different time zone) as being the most populated period of the day (Steinkuehler and Williams, 2006).

[203] The designation 'community members' is broader. 'Guild members' is an expression adequate only when referring to virtual worlds where guild formation is essential to achieve higher levels, as *WOW* or *Lineage 2*. 'Community members' designation includes not only guild members, but also members of organized, active social groups constituted within sandbox digital multiplayer games.

number of places, others are quite 'mundane', offering accurate representations of 'traditional' social spaces and restricting the use of 'non-human features' like flying.[204]

Third places are spaces for evasion, and usually the mood within them is playful. Virtual worlds, on the other hand, should be seen as being playful by nature. Even if a player decides to have a serious approach to his digital experience, the general tone of the environment and of other avatars interactions will remain playful. Perhaps, because the main motivations that seem to trigger players to enroll with these social scenarios are, according to Yee (2006a), to foster a sense of achievement and of immersion, the possibility to socialize and to escape 'reality', to feel part of a group, the will to study game mechanics, and because they enjoy competing. The will to transform the game setting in something serious, and with actual consequences tend not to be mentioned by players. Regarding the last characteristic, third places should be seen as a place where people expect to meet familiar faces, and where absences are noticed. Virtual worlds perform the same role for players, despite being virtual instead of 'physical', and of being open-ended. Participation in in-world social life seems to be inevitable if a user intends to be part of a virtual settlement:

> fellow MMO players create an atmosphere of mutual caring that, while avoiding entangling obligations per se, creates a sense of rootedness to the extent that regularities exist, irregularities are duly noted, and, when concerning the welfare of any one regular, checked into. Such feelings of rootedness within MMOs help create a shared sense of home, and with it the sense of support and warmth that some folks may very well lack in their own 'real world' households and work places. (Steinkuehler and Williams, 2006: 900)

I consider that virtual worlds as third places should be understood as third places remediated into a dimension where fantasy becomes 'reality', offering users new settings for social interaction. These settings may be understood as 'frames' of social interaction (Goffman, 1990 [1959], 1974; Schroeder, 2002), since they are stages within which users perform their in-world social roles.[205] Mediated interaction was not predicted by Goffman as having the potential to be considered a frame. However, Schroeder (2002) suggests that

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[204] There are many locations within *Second Life* where users are not allowed to fly despite flight being a 'natural' attribute of avatars. The possibility of flying or not is one of the conditions land owners can define for the permanence in their territories.

[205] Reflecting upon the definition of frames, Goffman proposes: "I assume that definitions of a situation are built up in accordance with principals of organization which govern events […] and our subjective involvement in them; frame is the word I use to refer to such of these basic elements as I am able to identify" (Goffman, 1974: 10-11).

this conceptualization should be extended to provide a better understanding of the implications of virtual settings for social interaction, since online interaction is complementary to face-to-face one. The analysis of social interaction within *Second Life* that will be discussed throughout Part III will also treat online interaction as being complementary to face-to-face interaction. New media practices are becoming increasingly part of the lives of people from all over the world, and I would like to argue that it is more and more necessary to understand these practices as complementing interpersonal communication ones. Nevertheless, it is required to acknowledge the specificities of computer-mediated communication (Thurlow, Lengel, and Tomic, 2004). According to December (1997), "[c]omputer mediated communication is a process of human communication via computers, involving people, situated in particular contexts, engaging in processes to shape media for a variety of purposes". Despite being characterized by being anonymous, flexible and free, the success of online interaction should be seen as dependent of the capacity of the users to feel together, co-present, and socially present in the social platforms:

> [t]he key variable within the frame is therefore the focus of attention – on the co-present others, on the task or interaction, and on the environment. [...] What I am suggesting is that a person's presence in *shared* VEs can be seen as part of their *interaction* with others, which includes how we present ourselves to others and encounter them in small groups. (Schroeder, 2002: 13, italics in the original)

The concept of togetherness has been applied to the research of virtual environments meaning the sense of people being together in a virtual social space. The sense of being together results from the immersion process users experience in interaction-rich online social platforms. According to Durlach and Slater (2000) there are two essential factors for the development of a sense of togetherness among users of shared virtual environments. The first is presence in a common digital setting; and the second, communication among users. I consider that in virtual worlds this process of immersion can be more immediate since users have their own tridimensional virtual representatives. Sallnäs (2002) argues that users perceive togetherness in a shared virtual space if the actions of each avatar are witnessed by those in proximity, and if users take part in any collaborative activity. I would like to suggest that the modes of communication and interaction available in the different social platforms should also be considered important for increasing the sense of togetherness. For instance, perspective (avatars' point of view) and haptic communication

are seen as having the capability to influence the sense of presence, and therefore the sense of being together in this type of social settings (Ho *et al*., 1998; Schuurink and Toet, 2010; Riva *et al.*, 2007).

Co-presence is closely related to the sense of togetherness. Presence as a vital dimension of interaction within virtual worlds may be analyzed in three perspectives (Heeter, 1992): personal, social, and environmental presence. Personal presence is related with the sensation of being immersed within a virtual world; social presence with the interaction established between different users, and the way other avatars react when present with each other; and environmental presence is dependent on the way the setting acknowledges the presence of avatars.

Personal presence is influenced by the interface. The graphic capabilities of the platform impacts the degree of immersion the user achieves. However, I noticed that the user's ability to get immersed is also crucial for re-embodying the avatar. Social presence is achieved by the acknowledgement that one is sharing a digital space with other users. One of the first research works aiming at setting a relationship between social presence and the use of different media was conducted by John Short, Ederyn Williams, and Bruce Christie, and was published in their book *The Social Psychology of Telecommunications* (1976). For the authors 'social presence' is the "degree of salience of the other person in a mediated communication and the consequent salience of their interpersonal interactions" (Short, Williams, and Christie, 1976: 65). When used to analyze the role that mediated forms of communication and interaction may have to the feeling of being socially present, two main conceptualizations of social presence have been applied to different research (see, for instance, Biocca, Harms, and Burgoon, 2003; Gunawardena, 1995; Short, Williams, and Christie, 1976): to indicate a specific feature offered by a determined medium in mediated communication; or to refer to the behaviors and perceptions of the actors of a mediated interaction (Rettie, 2003). I consider that social presence in virtual worlds is conditioned by the intrinsic characteristics of each platform, however, as Sallnäs suggests:

> The three-dimensionality of virtual environments adds a number of specific features to traditional communication environments. The virtual environment is often perceived as a place in which people can navigate with an avatar, interact with objects and obtain information. (Sallnäs, 2002: 173)

Virtual worlds that allow users to interact and to contribute to the virtual setting are the ones that can offer a sense of environmental presence. The majority of virtual worlds allow users to create content within the game, but few offer the possibility to contribute to the geographical development of the virtual world as *Second Life* does. Within this virtual world it is possible to experience the three types of presence, and I believe it should be considered a complex online setting for social interaction.

The multi-modality of virtual worlds is essential not only to the immersion process, but also for the building of social networks. Social networks in virtual worlds may assume different forms, being the two most common communities and interest groups, as seen in Part II. One of the outcomes of the organization of social networks is the development of social conventions among the members of those networks. Conventions are essential to social interaction, they are the rules defined and shared by those who belong to a certain network. According to Tucker (1998), "[m]uch of the knowledge that people have of social conventions is non-discursive, grounded in the practical activities of social life" (80). In interaction-rich digital settings, social conventions are essential to organize, and foster, social interaction. And as noticed in offline interactions, in virtual worlds people tend to behave in social spaces according to a defined set of rules. I classify these rules as being implicit and explicit. The implicit ones are those defined by the company responsible for the platform, while the explicit tend to be collectively set by players, and made visible through their interaction.

In order to better understand how social interaction in virtual worlds is organized, particularly in *Second Life*, in the following sub-chapter attention will be paid to the social life of avatars, since "the internet can be regarded as a medium which constructs new forms of sociality despite traditional social structures and their boundaries" (Becker and Mark, 2002: 21). The aim is to analyze the major trends in social interaction among avatars inhabiting virtual worlds, as well as to verify how these interactions occur and how avatars communicate (verbally and non-verbally) with each other. The main hypothesis that will frame the discussion is that virtual worlds offer richer and more meaningful social settings than traditional video games, or other social media platforms. Despite the way users engage with each other is highly influenced by the programming code that sustains the

digital setting, I consider that it is necessary to recognize that users' role as *produsers* have a noticeable impact in the organization of social life.

1.1. The Social Life of Avatars

The avatar is the digital being that allows users to feel emotionally involved with the virtual setting. In order to be able to enjoy the possibility of experiencing an alternative dimension for social interaction, users must not only master the platform and avatar-control commands, but to embody the avatar and let it be their representatives. Different virtual worlds are inhabited by different populations, and social interaction among them is influenced by the platform's design and intrinsic usage rules (Cheng, Farnham and Stone, 2002). In order to be suitable for social interaction, virtual worlds should be: multi-user and to have the capacity of welcoming large numbers of geographically distant users; synchronous, allowing people to interact in real time; navigable – users should be able to explore the digital space; embodied – users should be able to embody their own avatars; and spatial, virtual worlds should provide users a shared space for interaction (Bailenson and Beall, 2006; Bailenson *et al.*, 2004). Apart from this, and so as to deeply involving users it is becoming more and more important to allow them to actively contribute to the world's development. But even in the case of virtual worlds where users cannot contribute to the platform's design, users are most of the times responsible for the implicit social conventions that guide in-world interaction, having always the possibility to contribute to the digital environment development.

The social life of avatars, I would like to suggest, should be perceived as being organized around two different types of social events – casual encounters and organized gatherings, as it happens in offline face-to-face experiences. According to Goffman an encounter is "a type of social arrangement that occurs when persons are in one another's immediate physical presence" (Goffman, 1972 [1961]: 17). It is a social interaction, involving people and occurring in a given location. Encounters are casual and spontaneous; while organized gatherings result from the actions of social groups. Goffman considers that the 'organizational properties' of gatherings promoted by social groups are: regulation of entering and leaving; capacity for collective action; division of labor; socialization

function; they are means for satisfying personal goals; and have an important social function in the surrounding environment (cf. Goffman, 1972 [1961]: 9).

I intend that avatar's social lives are organized around encounters and social gatherings. Encounters are more common during the process of getting familiar with the digital setting. Different research works have also shown that frequent users of virtual worlds navigate less, and tend to seek familiar places (Cheng, Farnham, and Stone, 2002; Harris, Bailenson, Nielsen, and Yee, 2009). The observation of *Second Life* during the last three years led to the same conclusion – citizens tend to navigate less and are 'regulars' at their own gathering places; while tourists spend more time exploring the world. For instance, this became evident in the analysis of community places, which are mainly used as meeting points by their members, as the following passage of the field notes exemplifies:

> When I arrived at The Shelter the bar area was the zone with the highest concentration of avatars. Here is possible to have a drink, or to enjoy the dance floor or the juke box. Despite the presence of some newbies and visitors like me, the majority of the avatars present in the bar area were members of the Shelter group. They were offering help to newcomers, but at the same time they were interacting with each other. The tone of their public conversation was familiar, and it seems that they are used to meeting here. (Field notes of the visit to The Shelter, March 2, 2010 [second phase])

I understand casual encounters as one of the first steps to become a member of a 'social group', since they play an important role for making friends and getting to know other avatars. Organized social gatherings, on the other hand, are important to nurture closer relationships among avatars.

Second Life world's organization can be considered essential for foster social interaction. On one hand the platform was designed in a way that somehow guarantees that the interaction among avatars would follow the basic norms of face-to-face experiences. One of the main principles that define social interaction is that the actors must be aware of the presence of each other. This presence may not be 'physical', for instance, there are forms of mediated social interaction like talking on the phone or writing a letter, which do not require sharing a physical space, but participants are aware of the presence of each other. In shared environments like *Second Life* this awareness of the other is also not dependent on geographical proximity. Avatars may take part in 'face-to-face' interactions and in mediated ones. The mediated take place through the instant messaging tool, which allows communicating with all avatars listed as friends, independent of their location, they only

need to be logged in. This means of communication may also be used to 'talk' privately with avatars that are in proximity of other avatars. In 'face-to-face' interactions the presence of the other is always acknowledged since it is not possible to be near other avatars and not to be noticed.

Another characteristic of first life social interactions is that participants must perform recognizable roles; roles that are informed by their self-presentation and behaviors during the interaction. I would like to propose that in virtual worlds this dimension is clearly influenced by the degree of realism allowed by the platform. Realism in the context of virtual worlds means the "degree to which digital human representation looks and behaves like a real human" (Harris, Bailenson, Nielsen, and Yee, 2009: 435). Regarding avatars appearance, as seen in Part II, users tend to follow first life 'guidelines' to develop their avatars; and as far as behavior is concerned, interaction in this digital setting is defined by the communication modes available – voice, text, or gestures, as will be discussed later. According to Blascovich (2002) the degree of realism has direct impact in avatars' capacity of influencing each other – the greater the degree of realism, the greater will be the capacity to influence others behaviors.

Apart from the platform's intrinsic features, the choices made by avatars when contributing to *Second Life*'s geographical development also reveal this need to induce social interaction. It is my opinion that public spaces in this virtual world tend to follow the norms of offline social spaces, "seating facilities are crucial, and the ways in which cushions, benches, chairs […] visibly invite communal activities, especially conversation, discussion, and debate, forms one of the most important aspects of *SL* interpersonal architecture" (Ensslin, 2011: 177). Sitting places assume the role of 'rich social objects' (Harry, Offenhuber, and Donath, 2008: 70), and are not only the most prevalent social objects, but one of the most used by avatars, as the following extracts of the field notes illustrate:

> There are several types of 'spaces for spirituality' within *Second Life*. Interested users may even choose if they prefer 'remediated' versions of first life religions or to follow spiritual communities unique to this digital environment. The First Unitarian Universalist Church in *Second Life* is one of these communities that are not based on traditional theology principles, but on values defined by its users. The great majority of avatars found within this location were at the 'sanctuary'. They were all part of this 'congregation', and were available to help newcomers. The majority was sitting in the

seating area, on the pillows available for that effect. (Field notes of the visit to First Unitarian Universalist Church in *Second Life*, December 22, 2009 [first phase])

The gathering area in Anam Turas Pagan Learning Grove seems to be the zone around the bonfire. Several members of the Anam Turas group were sitting together in benches 'made of' tree trunks. They were planning a community event. Once I get closer, they greeted me and offered to help me if I needed. (Field notes of the visit to Anam Turas Pagan Learning Grove, June 21, 2010 [second phase])

Social interaction is among the basic needs of avatars (Ensslin, 2011), as well as it is among users' basic needs (Maslow, 1943). However, the importance of this dimension is not the same for first and second lives. The theory of basic human needs was proposed by Abraham Harold Maslow (1943) and distinguishes five levels of human needs. In order to be able to fulfill a superior need, it is necessary to first fulfill those which are closer to the bottom of the hierarchy (see Figure 104).
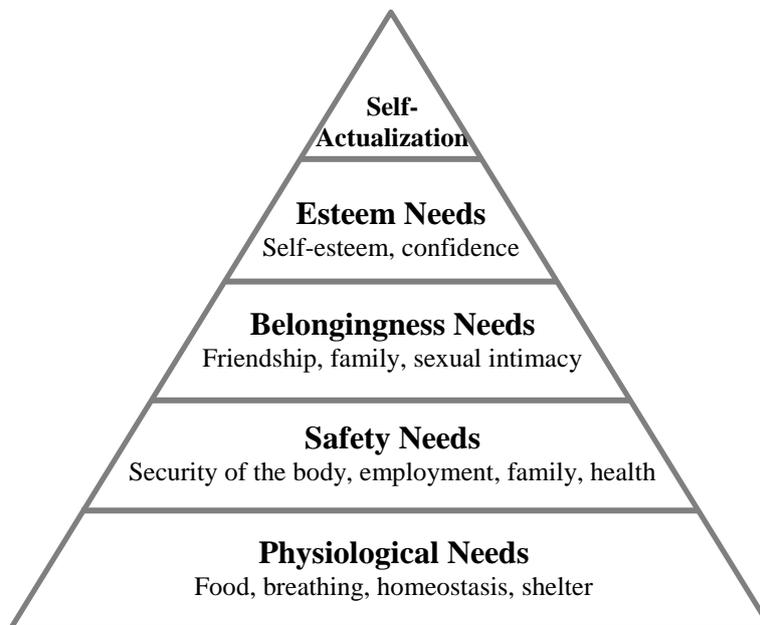
Figure 104: Adaptation of Maslow's human needs hierarchy

At the bottom of the pyramid are the physiological needs – according to Maslow (1943) the most prepotent of all the needs and those which must be fulfilled first. Such needs are the necessity of food and water, breathing, and shelter, for instance. As soon as these needs are satisfied, a new dimension of human needs is developed – safety needs. These include different forms of stability and permanence, such as having health, a family, a job, and access to resources, for instance. The need for safety is often manifested through "the very common preference for familiar rather than unfamiliar things" (Maslow, 1943: 379). The needs for belongingness, love, friendship and affection constitute the third dimension that

must be satisfied. These needs reflect the importance that being part of a group have for human lives. After accomplishing these needs, there are two more levels to reach – esteem and self-actualization. Esteem is associated with achievement, appreciation and respect from ourselves and from others; while self-actualization is concerned with individual abilities and skills.

Ensslin's research of avatars needs in *Second Life* reached the conclusion that the most important needs are those related with aesthetics, communicative and interpersonal actions, material resources, and emotions:

> Aesthetic needs comprise factors such as beauty and appearance – more generally, clothes, skin, shoes, hair, bags, glamour, fashion, and accessories. Communicative and interpersonal needs involve friendship, communication and interaction with others, nice character and fair treatment, equality, respect, community, connection with lifetime companion, an *SL* partner, making others happy, and understanding other people's behaviors. Under material needs come proprietary matters such as money, a house or home, land, *prims*, and life-enhancing assets such as top technology. Emotional needs, finally, include comfort, fun, security and self-protection, spirituality, music, experimenting with others' behavior and feelings, privacy, diversity, realism, and mixing reality with fantasy. (Ensslin, 2011: 173-4)

When compared to Maslow's hierarchy of human needs avatars seem to have different basic needs. Based on the results of the empirical research grounded on the interview of several avatars, Ensslin (2011) proposes an adaptation of Maslow's model (see Figure 105) in order to illustrate that avatars despite being digital also represent the emergence of a new set of primary needs for the users controlling them.
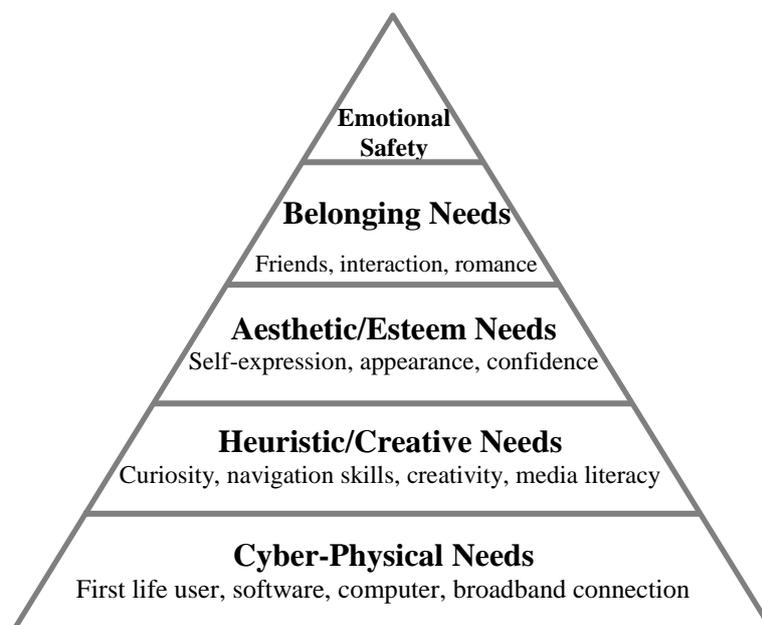
Figure 105: Adaptation of Ensslin (2011) avatars' needs hierarchy

The first needs that must be satisfied to allow the existence of the avatar are the cyber-physical needs, which "involve the physical requirements of having a human 'body' – the player – interacting with the computer" (*ibid*.: 175). Once avatars 'exist' they need to be able to explore the digital setting successfully. The second level of avatars' basic needs then is related to avatars capacity of applying creative heuristic processes that would allow them to learn the fundamentals of in-world interaction: how to move, communicate, search for information, purchase, and build objects. Despite not having being mentioned by the interviewees, Ensslin considers that these two dimensions are essential because they constrain an avatars' existence. But she recognizes that these two first levels overlap avatars and users' needs. Avatars' necessities as users' in-world representatives are evidenced by the three top dimensions: aesthetic and esteem, belonging, and emotional safety needs. Aesthetic and esteem needs are closely related to the importance of beauty for in-world interaction. The need for love and belonging is important both in first and second lives, however in *Second Life* friends assume a more important role than family. Emotional safety is closely related with the need for love and belonging, and is also anchored in trustful social relationships. Trust in virtual worlds is essential for the formation of solid social networks (Ess and Thorseth, 2011), and as the interaction among avatars is highly mediated, trust within these contexts is mainly associated with integrity of character and fair treatment. Emotional safety is pursued in social relationships as well as in a more private dimension of avatars' lives. As seen previously, in *Second Life* social life is organized around the co-existence of a public and a private sphere. Private property, mainly dwelling spaces, are vital when avatars want to have privacy and to be 'protected' from intruders.

The analysis of Ensslin's proposal regarding the basic needs of avatars helped to better understand the importance of social interaction in-world. Social interaction occurs in different contexts and assumes different forms (mainly casual encounters and organized gatherings). In line with previous research on the evolution of social behavior over time in *Second Life* (Harris, Bailenson, Nielsen, and Yee, 2009), the netnographic research conducted allowed me to identify the four main dimensions of social life within this virtual world: friends, family, communities, and interest groups. Friendship seems to be the most important. Becoming friends with another avatar is not automatic, and requires mutual agreement. Friends are notified when their peers log in or off, and are always reachable

through instant messaging regardless their in-world location. The importance of friendship for users' second lives was verified through the informal interviews. When asked if they have close relationships in-world the great majority of the interviewees responded affirmatively and having friends was the most referred to form of relationship:

> Avatar 9 [human]: I have lots of friends. I meet a lot of people because of my work, and some of them are really interesting people. When the talk is good I usually keep in touch with them. It is good to know someone to hang out with and have a nice talk for a while.

> Avatar 15 [human]: Yes, a few. I meet a lot of people here but as I don't 'go out' as much as I used to, I do not get in touch with a lot of people now. I have some friends that come here, have a coffee and stay around.

Besides having friends, some interviewees also stated to have closer relationships such as a family or a girlfriend/boyfriend:

> Avatar 5 [furry]: I have a family. I'm married and we have several close friends that are like our in-world family.

> Avatar 2 [human]: Of course, I have a girlfriend and some close friends.

And belonging to a community, or to an interest group seems also to be among the most important social dimensions of avatars lives, as stated by two of the interview respondents:

> Avatar 3 [furry]: Yes. I know many different people and they are not all furries. I spend a lot of time here [at Luskwood] but every now and then we meet in 'neutral' locations.

> Avatar 8 [dragon]: Lots [of relationships]. This is a very active community.

Following Schroeder's (2002) proposal, I would like to suggest that the modality of communication available in-world also influences the interaction among avatars. *Second Life* offers users a rich communication environment, where verbal communication may be oral or written,[206] and non-verbal communication is possible not only through self-presentation, but also through the use of gestures. Despite offering the possibility of voice communication, users prefer to use the chat tool, or the instant messaging, and communicate through written code. This type of code is even used to express emotions (cf. Pita and Pedro, 2011). Non-verbal communication seems also to have a preponderant role in users' interaction, fostering engagement among avatars: "[n]ext to social cues, non-

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[206] Text-based chat allows users to express themselves as they were having a conversation.

verbal communication may help to avoid ambiguity and provide feedback to those communicating" (Verhulsdonck and Morie, 2009: 5).

Graphic virtual worlds transformed online communication by allowing users to resort to other forms of communication than verbal 'written' ones. I was able to verify that verbal communication within *Second Life* follows the rules of 'electronically-mediated communication', which is shaped by the use of abbreviations, acronyms, *emoticons*, and has traces of oral communication (Baron, 2008). Non-verbal online communication, on the other hand, is only possible within shared environments where users are represented by avatars and are able to acknowledge the presence of each other. Non-verbal communication refers to messages exchanged during a communication act that are transmitted by other means than words. According to Michael Argyle (1988) the primary functions of non-verbal behavior are: expression of emotions, communication of interpersonal attitudes, manifesting support, self-presentation, and the performance of interaction rituals. Emotions tends to be expressed through facial expressions, body language, and tone of voice; interpersonal attitudes through gaze, haptic feedback, and tone of voice; empathy and support are often manifested through expressive behaviors like nodding; self-presentation is achieved through appearance and general behavior; and most of times rituals take the form of greetings (Argyle, 1988; Knapp and Hall, 2009 [1992]).

Non-verbal communication is complex and culture specific (Hall, E., 1990 [1966]). Some of the traditional dimensions of this type of communication are physical appearance, proxemics, facial expressions, gestures and posture, touch, vocal cues, and time perception. Appearance is one of the first messages transmitted in a social situation, and first impressions are usually drawn upon what others wear and what they look like (Richmond and McCroskey, 2004). Proxemics is related to the use of territory for privacy management and personal space – the space an individual keeps between him and others (Hall, E., 1990 [1966]). Argyle (1988) considers that facial expressions constitute the main form of expressing attitudes and emotions, and refers to six categories of facial expressions: happiness, surprise, fear, sadness, anger, and disgust/contempt. Gestures and postures are the body movements that are present in all social interactions; according to Goldman (1994) these movements are essential for regulating interpersonal communication. Tactile communication enriches social interactions. Touch is culturally regulated, depends on the

relationship between the social actors, and may be used both for positive and negative reactions (Knapp and Hall, 2009 [1992]). Vocal cues are often used to complement speech, and include intonation and vocal emphasis, or laughing and crying, since vocal cues are closely related to emotional state. Time perception or chronemics is transmitted through the way individuals talk about time and position themselves in time. Time may be understood as routines or cycles of behavior (*ibidem*), and individuals may have different time orientations – they may be more past-, present-, or future-oriented (Richmond and McCroskey, 2004).

From my experience I consider that non-verbal communication within virtual environments is not so complex and rich as it is in face-to-face ones. However, as past research works have shown (Antonijevic, 2008; Pita, 2008; Pita and Pedro, 2011; Yee *et al.*, 2007), in *Second Life* this form of interpersonal (or 'inter-avatar') communication is of major importance for in-world social interaction, and social networks formation. Yee *et al.* (2007) analyzed the importance of gaze and interpersonal distance in dyadic interactions. They concluded that first life non-verbal social norms are applied in interaction between avatars: eye gaze regulates conversational flow and interpersonal distance is larger in interactions between actors from different genders. Pita (2008) in a research focused on the non-verbal communication among master degree students concluded that, despite not being the primary form of communication, avatars tend to complement verbal interactions with some of the gestures available in avatars' inventory. However, from the set of gestures available in all avatars' inventory,[207] users tend to more often use only six of them: 'chuckle', 'clap', 'laugh', 'aahh', 'wow', and 'yes' (*ibid*.: 14). Antonijevic (2008) conducted a micro-ethnographic analysis focusing on the non-verbal behavioral patterns that occur in social interaction among avatars. One of the goals of this research was to categorize non-verbal acts performed within this virtual world. From the observation of many different in-world locations[208] Antonijevic determined that there are four categories

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[207] The predefined gestures available in the current version of *Second Life* for a female avatar are 46: 'bow', 'clap', 'count', 'extinguish', 'kmb' (a form of internet slang), 'muscle', 'no', 'no!' (more emphatic no), 'paper', 'rock', 'scissor' (from 'paper-scissors-rock' hand-game), 'pointme', 'pointyou', 'smoke', 'strecht', 'whistle', 'yes', 'yes!' (more emphatic yes), 'afk' (acronym for 'away from keyboard'), eight dance scripts, and specific female postures and gestures – 'blow kiss', 'boo', 'bored', 'chuckle', 'cry', 'embarrassed', 'excuse me', 'get lost', 'hey', 'hey baby', 'laugh', 'looking good', 'over here', 'please', 'repulsed', 'shrug', 'stick tongue out', 'wow', and 'hula'.

[208] Smiljana Antonijevic (2008) observed user interaction in 108 locations for six months. The locations were chosen randomly, and the observation was non-participant.

of main non-verbal cues in *Second Life*: 'user-defined', 'predefined', 'blended', and 'missing' cues. User-defined cues are the ones that perform the most important role in the communication among avatars, having a similar function to the role of non-verbal cues in face-to-face interaction. These cues are "non-verbal acts that the user deliberately performs and individually encodes" (Antonijevic, 2008: 226), and are more evident in the use of interpersonal distance and body orientation. Predefined cues are those which are not deliberately performed nor encoded by users, for instance when avatars move in a certain direction the bodies of the nearby avatars will react automatically shifting their heads in the same direction. Blended cues are all that are selected by users but 'system encoded', as the use of poseballs. Users decide to perform the script associated with a given 'poseball', despite not being responsible for the codification of the animation. The last category of in-world non-verbal cues are the missing, meaning the non-verbal acts that cannot be performed within this virtual world. The most important missing cue may be the impossibility of performing natural and spontaneous facial expressions.

The firsthand experience of *Second Life* led to the confirmation of the importance of non-verbal communication in-world. However, I consider that it is indispensable to acknowledge the differences between face-to-face and mediated non-verbal communication. The major differences result from the limitations imposed by *Second Life*'s code and from the fact that within the digital setting communication is highly mediated. I would like to argue that in-world non-verbal communication is limited to three main dimensions: physical appearance, proxemics, and gestures and poses. Physical appearance and proxemics are controlled by the users within the limits imposed by the interface. Both seem to be influenced by users' first life experiences, and tend to reflect some stereotypic perspectives mainly in what gender identity is concerned. Traces of femininity and masculinity are often communicated through the exaggeration of physical attributes and 'body art'; and the management of personal space reveals that gender tends to impact the inter-avatar distance. Gestures and poses may be controlled by users or be predefined. The predefined, such as the 'away from keyboard' mode or the automatic bodily reaction of avatars when someone approaches, for example, seems not to be valued by users. In my opinion this type of non-verbal cues is understood as being part of the interface, and do not add meaning to the communication act. Gestures deliberately performed by the avatars, on the other hand, are very important for avatar-avatar

communication. The use of gestures and poses during the interaction with other avatars is a way to add emphasis to what is being said. And as the (re)embodiment of the avatar implies the immersion within the digital setting, I consider that the articulation between users' physical and digital bodies is not only achieved through the possibility of navigating the digital setting, but also through the ability of expressing oneself through the avatar.

Notwithstanding, one of the main conclusions shared by Pita (2008) and Antonijevic (2008) is that the use of gestures may interfere in the communication flow. In order to make use of gestures during a conversation through the chat or instant messaging channels, one needs to articulate the writing with the process of choosing and performing a given gesture. Being able to successfully coordinate the gestures with specific moments of the on-going conversation is not easy, and I suggest that this it may be one of the main reasons why users do not use these non-verbal cues more often. Nevertheless, one should consider that the possibility of using these features is making social interaction in-world more engaging, as it was experienced when visiting Svarga:

> The majority of the avatars that were in this location were concentrated near the entrance area – not the arriving point after teleportation but the entrance area already within Svarga's wall, in a square with a fountain. Some of them were in a group, talking. Three of the members of this group were communicating through voice, and the others through the chat. One of the users using the chat 'added' me to the conversation, and began by presenting himself. It was interesting that besides using 'verbal' written communication he complemented the interaction with gestures available in the 'basic' collection of gestures of the inventory. The integration of these gestures amid the conversation may have slowed the communicational flow a little bit, but did not make it strange or less fluid. (Field notes of the visit to Svarga, June 4, 2010 [second phase])

The communication among avatars tends to be spontaneous and informal. Avatars present in public spaces designed to foster interaction – like beaches, bars, or open-air interaction-rich spaces, usually get engaged in social interactions. In the majority of the places visited corresponding to these characteristics, avatars tended to foster interaction with 'strangers', as well as with familiar faces, which may be exemplified by the following field notes:

> This is an interaction-rich social space. The avatars that are in the most interactive public spaces tend to be in pairs, or in groups. The majority of them do not seem to belong to this community, but rather to be exploring it for the first time with their friends. (Field notes of the visit to Bedrock, September 30, 2009 [first phase])

> The highest concentration of avatars was noticed in the entrance area, which is a public space prepared for different types of social interaction – it is a square where it

is possible to find information on this specific location, but also on the Danish community in *Second Life*, and also a lounge and leisure area where one can, for instance, play mahjong with other avatars. The avatars present in this zone were having a conversation through the chat channel. They were using a familiar tone and seemed to know each other for some time. There were other avatars in this location, but they were exploring it by themselves. When an avatar came near the group, the members of the group tended to greet him, and to offer help. (Field notes of the visit to Wonderful Denmark, April 20, 2010 [second phase])

However, I suggest that there is another visible phenomenon within this virtual world regarding the social life of avatars that should be acknowledged – isolation. Despite the possibilities offered for social interaction within *Second Life* some avatars do not look for active social lives, but for privacy, and/or more individual experiences, as witnessed during the participant observation:

Despite being a beautiful location it is not among the most interactive ones that I have visited. The organization of the space allows avatars to be alone in one of the several corners of the wall, or to explore less accessible spaces. The avatar that I found here looked like preferring to be alone; it seemed to be ignoring my presence. (Field notes of the visit to Mont St. Michel au Peril de la Mer, October 5, 2009 [first phase])

Spaces like Etopia Eco-Village offer both the possibility of engaging in social or individual activities. Despite being highly interactive and offering educational information about sustainability and ecological lifestyles, in my both visits the number of avatars within this location was low. The tendency seems to be an active engagement with the setting, but not so much with other avatars. This location seems a great one for those who look for interesting and educational contents, but that avoid active social second lives. This conclusion is reinforced by the fact that this location also offers a private residential area, only reachable with owners' permission. (Field notes of the visit to Etopia Eco-Village, May 24, 2010 [second phase])

The nature of social activities in-world, one must argue, differs significantly according to users' wills and interpersonal skills. Despite the importance of social interaction for *Second Life* development, as noticed in other virtual worlds (Ducheneaut, Yee, Nickell, and Moore, 2006), the 'alone together' phenomenon is also characteristic of this virtual environment. One is 'alone together' when "surrounded by others, but not necessarily actively interacting with them" (*ibid*.: 415), or, as Sherry Turkle puts it "[o]ur networked life allows us to hide from each other, even as we are tethered to each other" (Turkle, 2011: 1).[209] As in face-to-face interactions there are avatars that have problems in fitting in

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[209] Turkle's proposition does not regard only the 'loneliness' manifested in some online interactions like those described in this chapter concerning the social lives of avatars, but the solitude that according to her is more and more characterizing human life. However, despite questioning the role people attribute to new technologies, Turkle still argues that social technologies may have an important role in users' lives: "When part of your life is lived in virtual places – it can be *Second Life*, a computer game, a social networking site—

and engaging with others. Some of them would prefer more isolated spaces where the exposure to social dynamics is less likely; others, on the other hand, seem to prefer locations where meeting other avatars is a possibility, but end up avoiding direct social interaction. The following excerpts from the field notes of the visits to The Wastelands and Kuula New Citizens Incorporated illustrate this phenomenon:

> Regarding the interaction among avatars, despite the presence of several avatars in the same area, I have not witnessed any public interaction among them. However, one of the members of the community spoke to me briefly. The avatar was well equipped – camouflaged, with a kind of gas mask, and followed by three rats, he offered me a t-shirt, waited for me to wear it, and then said "You'll be safer this way". I tried to ask him why, but he vanished running in another direction. (Field notes of the visit to The Wastelands, September 23, 2009 [first phase])

> Being a newbie friendly location I was expecting to witness several moments of social interaction among avatars. However, and despite the availability of different members of Kuula New Citizens Incorporated to help newcomers, the majority of the avatars that did not belong to NCI group seem to prefer exploring the space and the available resources on their own. (Field notes of the visit to Kuula New Citizens Incorporated, February 26, 2010 [second phase])

Based on my own experience within this virtual world, I would like to suggest that the social life of avatars is mainly influenced by three factors: the platform's design and features, users' will, and geographical and urban organization. In the case of *Second Life* the two last elements are blurred since users are the main contributors to in-world's spatial development. Social interaction within this virtual world tends to occur preferably in crowded locations, but more desert places seem the ideal for those users seeking some privacy. I consider that the dichotomy in the organization of space is contributing to the emergence of in-world social conventions, or normative behavioral rules, like greeting other avatars when arriving at any location, respecting interpersonal distance, and disclosure regarding first life.[210] These social rules, on the other hand, influence the communication among avatars. They are preconditions of communication, both in face-to-face and mediated contexts, because "the way people communicate with each other is

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a vexed relationship develops between what is true and what is 'true here', true in simulation. In games where we expect to play an avatar, we end up being ourselves in the most revealing ways; on social-networking sites such as *Facebook*, we think we will be presenting ourselves, but our profile ends up as somebody else – often the fantasy of who we want to be. Distinctions blur. Virtual places offer connection with uncertain claims to commitment. We don't count on cyberfriends to come by if we are ill, to celebrate our children's successes, or help us mourn the death of our parents. People know this, and yet the emotional charge on cyberspace is high. People talk about digital life as the 'place for hope', the place where something new will come to them. In the past, one waited for the sound of the post – by carriage, by foot, by truck. Now, when there is a lull, we check our e-mail, texts, and messages." (Turkle, 2011: 153).

[210] This last rule is the less affected by the social use of space.

embedded in social practice and specific lifestyles, which are determined by implicit social conventions" (Becker and Mark, 2002: 22).

In the next chapter the social lives of avatars will be further explored aiming at an understanding of the interaction rituals performed during in-world social situations. Attention will be particularly paid to the way these rituals are contributing to the emergence of remediated social structures as economy and law. I will suggest that these structures are intrinsically related to users' creativity, and are only possible due to the fact that shared virtual environments are more and more dynamic social settings where users assume different social roles:

> After years of playing more than an hour every day on average I have to conclude that virtual worlds not only can be seen as processes and places but also that these are processes in a constant state of change and development; they are dynamic. This means that the inside view always can be developed further by continued participation as long as the world continues to exist. (Jakobsson, 2006: 224)

II. New Social Interaction Rituals

> It seems that you have been living two lives. In one life, you are Thomas A. Anderson, a program writer for a respectable software company. You have a social security number, you pay your taxes and you help your land lady carry out her garbage. The other life is lived in computers where you go by the hacker alias Neo, and you are guilty of virtually every computer crime we have a law for. One of these lives has a future. One of them does not.[211]

> (Wachowski and Wachowski, 1999)

The existence of norms that regulate social life is essential for human beings to be able to live in societies, and to be members of different social groups. Even in a simulated reality like the Matrix rules shape social interaction. There are three essential sets of norms that determine the nature of social life within this alternative reality: the structural ones defining that citizens should have, for instance, a social security number, pay taxes, and that they should avoid breaking the law; those related to social expectations such as having a job and a house to live in; and those which inform social interaction among Matrix residents, like being helpful towards others. Violating these rules may result in 'not having a future', as Agent Smith warns Neo. Within the Matrix rules also are the primary element that allows machines to remain in control of the humanity.

Outside the fictional world of *The Matrix* rules also organize humans and their different interactions. The internet and networked technologies for communication and interaction were seen at their beginning as having the capability of eliminating the majority of those rules. However, social rules remain essential even in mediated forms of interaction and communication. Despite not being free from regulation, due to its characteristics the internet has been transforming human experience both at a social and at a personal level: "[s]ince our practice is based on communication, and the Internet transforms the way in which we communicate, our lives are deeply affected by this new communication technology" (Castells, 2003 [2001]: 5). The generalization of the practice of 'going online' is more and more reinforced by people's needs to interact with each other. This interaction is not limited by the social networks one has already established in their first lives, but blurs geographical and cultural boundaries. The internet then offers not only new forms of

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[211] Agent Smith's line when interrogating Neo for the first time, hoping to be able to 'convince' him to keep himself away from Morpheus and his dissidents group.

communication, but is also allowing the emergence of new interaction patterns that regulate online social interactions (Castells, 2003 [2001]; Rainie and Wellman, 2012).

New information and communication technologies allow users to create and participate in new social systems, and influence the emergence of social conventions adequate for these new social settings. In spite of the different forms one may choose for online communication, there is one dimension that influences how communication and interaction occurs, affects: "[t]here seems to be a growing feeling within media, literary, and art theory that affect is central to an understanding of our information- and image-based late capitalist culture" (Massumi, 2002: 27). According to Brian Massumi (2002) in order to understand the complexity of contemporary experiences it is necessary to think them outside the linearity of narrative continuity, since experience is dynamic. The body and the media are proposed as cultural formations intrinsically interconnected with the multiple dimensions of sensation: "[…] all the sense modalities are active in even the most apparently monosensual activity. Vision may ostensibly predominate, but it never occurs alone. Every attentive activity occurs in a synesthetic field of sensation […]" (*ibid*.: 140). The 'affective tonality' (Massumi, 2007) of each situation is suggested to influence how experiences are perceived. In the scope of the analysis of the interaction within *Second Life* I would like to argue that affectivity is also the primary element that leads users to attribute meaning to the multi-dimensional sensorial experiences lived in-world.

Affective engagement is one of the primary conditions for embodiment, which in turn is essential for social interaction: "affects not only derive from, but also inform and guide cultural agency and the formation of ideas and beliefs that will eventually be socially institutionalized" (Tygstrup, forthcoming). Though, it is necessary to acknowledge the difference between affect and emotion, which are not synonymous.[212] Emotion is something one has, while affect is something one finds himself in: "subjects have emotions, but affects produce subjectivity" (*ibidem*). In his analysis of the role performed by affects, Frederik Tygstrup also proposes that there are three main approaches that must be considered to understand collective affective experiences. The first emphasizing the relational dimension of affectivity; the second the situational nature of affects, and the third

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[212] Massumi (2002) argues that affect and emotion "follow different logics and pertain to different orders" (27). Emotion is "qualified intensity", it is the "sociolinguistic fixing of the quality of an experience" (*ibid*.: 28). Affect, on the other hand, is "irreducibly bodily and autonomic" (*ibidem*).

their corporeal dimension. Yet, Tygstrup argues "that affects cannot be pinned down to one specific realm or layer of reality but seem to persist as a material/immaterial halo or sphere hovering indistinctly but none less insistently above and within any field of human agency and interaction" (forthcoming). Affectivity is then a contextualizing dimension of social life that evinces "the irreducible *alterity* of the nonhuman in and through its active *connection* to the human and vice versa" (Massumi, 2002: 39).

Online interaction is also framed through, and within, affectivity. Affects influence how the performer engages with the audience and with the stages where the interaction occurs, but also how he performs his role within the interaction order (Goffman, 1983). The social roles performed are estimated to be adequate for each situation. The audience is always expecting the performer to behave in a predictable, ritualized way:

> Every person lives in a world of social encounters, involving him either in face-to face or mediated contact with other participants. In each of these contacts, he tends to act out what is sometimes called a line – that is, a pattern of verbal and nonverbal acts by which he expresses his view of the situation and through this his evaluation of the participants, especially himself. (Goffman, 1982 [1967]: 5)

Social interaction rituals emerged from the need human beings have to somehow control interaction, focusing particularly on body and verbal behaviors. These rituals are based on what Goffman (1990 [1959]) proposes as 'masks' or 'faces': "The term face may be defined as the positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact. Face is an image of self delineated in terms of approved social attributes […]" (Goffman, 1982 [1967]: 5). One condition that is predicted in all interactions is the fact that all participants contribute to the performance, bringing their beliefs and values into the action. According to the audience and interaction context, the performer tends to adjust vocabulary and body language.

As proposed in the previous chapters, there are some online social platforms where it is possible to be part of engaging and rich social interactions, like in virtual worlds. In *Second Life* users need to establish social conventions, in order to be able to organize in-world interaction. I suggest that these conventions should be seen as being complementary to the terms of use defined by Linden Lab, allowing a more structured and organized social interaction. Previous research on the nature of the interaction among avatars concluded that users perform 'realistic' behaviors through their avatars (Friedman, Steed, and Slater,

2007; Harris, Bailenson, Nielsen, and Yee, 2009; Lomanowska and Guitton, 2012), behaviors that are socially developed and that tend to change over time. Additionally, I would like to argue that in-world social interaction is constituted around social performances that consolidate the rules implicitly and explicitly defined by avatars. In the following sub-chapter attention will be paid to these performative acts, and to their importance to the development of *prodused* social structures within *Second Life*.

2.1. Performance in Virtual Worlds

Nowadays performance has multiple meanings, and is a concept essential to understanding different behaviors, as well as activities. Originally, the concept of performance was closely related with dramatic performances. Now it is associated not only with the performative arts in general, but it is considered an essential concept also in the understanding of human interaction. Goffman (1982 [1967], 1990 [1959]), Schechner (1985), and Turner (1988) were among the researchers responsible for this change, once they studied the tendency human beings have to organize their lives through social interaction rituals. This means that social interaction may be understood as being shaped by and through social performances. However, as Marvin Carlson argues not all interactions should be considered performances: "[…] we may do actions unthinkingly, but when we think about them, then introduces a consciousness that give them the quality of performance" (Carlson, 2004: 70). Following Carlson's proposal one can consider that the concept performance should only be applied when social actors' behaviors are premeditated. These performances are always enacted for an audience, which can be constituted by other people or oneself: "[p]erformance is always performance *for* someone, some audience that recognizes and validates it as performance […]" (*ibid*.: 71, italics in the original).

The performative approach of social interaction considers that in order to be possible to manage diverse social occasions every social actor puts on a performance that should be recognized by the audience. Performative acts take place through self-presentation, and through "all the activity of an individual which occurs during a period marked by his continuous presence before a particular set of observers and which has some influence on

the observers" (Goffman, 1990 [1959]: 32). Social performances make clear the position of members within a social group, or within a casual encounter, but they are also ways of reinforcing and communicating individual and collective identities (Butler, 1993). Performance then should be considered a basic concept for acknowledging the different forms in which individuals perceive reality, how they act and react to the social construction of reality. According to Butler 'performativity' is the social agency of discourse, and is "that reiterative power of discourse to produce the phenomena that it regulates and constrains" (*ibid.*: 2). This proposal is based on J.L. Austin's approach on speech acts as 'performative utterances' (Austin, 2004 [1955]). Austin argues that social interaction is constituted around the use of different forms of expressing oneself. Two of the main types of sentences used in verbal communication are the 'constative' and the performative. The first are those sentences used to 'constate', to describe, and which are either true or false (*ibid.*: 147). The performative utterances can neither be true or false, and do not only transmit one well-defined idea, but "the first thing to remember is that, since in uttering our performatives we are undoubtedly in a sound enough sense 'performing actions'" (*ibid.*: 151).

New media as emergent settings for social interaction have a performative dimension (Kerr, Brereton, Kücklich, and Flynn, 2004). I propose that in order to be considered suitable settings for performative acts these new social spaces should allow the constitution of performances as predicted in face-to-face interaction. According to Goffman (1990 [1959]) social performances are oriented towards communication, and not towards work tasks. The audience behind which the routine is presented "is also likely to be suitable for other, somewhat different routines and so is likely not to fit completely any particular routine" (72). During the performance self-control is applied to preserve a 'working consensus', and an 'idealized impression' is given though the management of the facts that should be accentuated and/or concealed. In the end 'expressive coherence' is protected by the performer. By setting these characteristics, Goffman concludes that social performances can be understood as interaction constraints that led individuals to convert their acts into performances.

Digital settings offered by virtual worlds have the potential to locate performances. This performative dimension has already been proposed as an integrative dimension of games

and play since the groundbreaking works of Johan Huizinga (1971 [1938]) and Roger Caillois (2001 [1961]). While in-world players are aware of the mediated nature of their experience and their performances are influenced by the way they engage with the avatar, and with the setting. In-world interaction involves players acting out specific roles, and I suggest that it should be considered more and more an act of communication. Players get constantly involved in social interactions, where they may have the role of performers or of members of the audience in different routines (Rehak, 2003). Self-control during the interaction is influenced both by intrinsic game features, as well as by the players will, and capacity to embody the avatar and use it to act accordingly to the audience's expectations. These expectations are influenced both by game dynamics and by players' first lives sociocultural backgrounds (cf. Crawford and Rutter, 2007). Multiplayer virtual worlds allow users to perform predefined and totally customizable roles, according to the goals defined for each play environment. In both cases players tend to convey an 'idealized impression' when presenting themselves to others. In order to achieve the goals established for each social encounter, players' performances must be 'expressive coherent', which can be measured through audience engagement with the routine.

I would like to argue that in sandbox games like *Second Life* social performance is essential to the development of a shared in-world narrative. Within this online social setting performative acts are organized around two main dimensions. On the one hand, avatars are a remediation of the users' body and self, and on the other hand, they result from the creative processes of engagement experimented by users. Because users' identities are remediated, avatars are constituted as performative acts. Users perform their cultural, social and gender identities through their digital representatives. The roles performed through the avatars seem to be influenced by the capacity players have to attribute meaning to the virtual experience. As noticed by Wright, Boria, and Breidenbach (2002) in an analysis of the first person shooter *Counter Strike*, "[p]layers learn rules of social comportment that reproduce codes of behaviour and established standards of conduct, while also safely experimenting with the violation of these codes". I consider that it is also important to acknowledge that in environments where roles are almost totally[213]

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[213] In *Second Life* Linden Lab influences the roles that emerge from and within residents' interaction, despite the opportunity given to players to develop their 'own' virtual world. This influence is mainly exerted

defined by users' social creativity, collaboration and active social interaction are crucial to the structuration of the social dimension of avatars' lives. Despite the fact that creativity has traditionally been understood as an individual process often taking place within contexts of social isolation (Sternberg, 1988), emerging social contexts developed through collaboration and cooperation between participants are evidence that processes of social creativity may take place if the necessary conditions are met. According to Fischer (2005, 2011) social creativity emerges from individuals and their interactions with the environment, from the available artifacts, and from the externalization of ideas:

> Creative activity grows out of the relationship between an individual and the world of his or her work, as well as from the ties between an individual and other human beings. Much human creativity arises from activities that take place in a social context in which interaction with other people and the artifacts that embody group knowledge are important contributors to the process. (Fisher, 2005: 2)

Environments supporting interpersonal collaboration and social production as those provided by the social tools of web 2.0 are examples of mediated social creativity (Fischer and Giaccardi, 2007): "*The diverse and collective stock of scientific content and artistic or stylistic ideas that individuals and communities share, re-interpret, and use as a basis for new ideas and visions constitutes the vital source of invention and creativity*" (28, italics in the original). I consider that the virtual world of *Second Life* is a suitable platform for social creativity. During the netnographic research, it was possible to realize that users are appropriating and transforming it in a stage suitable for rich and engaging social interactions. While in-world one experiences different opportunities to interact with others. The different social settings available allow experiencing 'contextualized' social experiences. The general atmosphere of a night club is different from that of an apparel store, or of a lounge area in a beach, for instance. The interaction between avatars tends to be influenced by the surroundings. When visiting a store one may have the possibility to interact with the owner, or with other clients. From my experience conversation within these places tends to be focused on the products available. If one goes to a coffee shop or to other kind of lounge area, the tone of the interaction has a tendency to be more personal. Most of the initial conversations I had with avatars in these social spaces were centered on each one's preferences within *Second Life*. The act of sharing preferences seems to be a

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through the organization of the virtual world at a macro level. Linden Lab is not only responsible for setting the ToS, but also for regulating the general way of functioning of the virtual world.

way of checking the compatibility with others. If two avatars have shared interests, it is more likely that they will get in touch in the future. In game locations, on the other hand, interaction is mainly triggered by the goals of the game. Based on my experience, I would like to suggest that the in-world interactions are shaped through the social performances acted out by users, and social interaction in-world follows interaction rituals negotiated between the users. These rules are *prodused* and have matured over time, hand in hand with the virtual environment itself.

In order to realize how social performances are contributing to the rising of an in-world 'structured society' (Giddens, 1986 [1984]) the following chapters will focus on the emergence of social structures within *Second Life*. It is intended to verify how the co-creation of this digital environment is resulting in the rise of new sorts of social and legal ordering. In order to accomplish this goal, attention will be paid to the constitution of in-world economic and legal systems. I would like to argue that these systems perform a double role. They are systems of control and regulation, which are giving users the opportunity to bring together their online and offline experiences.

2.2. New Social Structures

The organization of social life within shared virtual environments results from the need users have to attribute structured meaning to their digital experiences. The development of in-world social structures seems to follow the logics of what Anthony Giddens proposes as 'structuration theory' (1986 [1984]). Structuration occurs when "rules and resources drawn upon in the production and reproduction of social action are at the same time the means of system reproduction" (*ibid*.: 19). Social structures assume a dual role, they shape and are shaped by social reality, which means that on the one hand they are produced through agency, and on the other hand, they encourage agency:

> In analysing social relations we have to acknowledge both a syntagmatic dimension, the patterning of social relations in time-space involving the reproduction of situated practices, and a paradigmatic dimension, involving a virtual order of 'modes of structuring' recursively implicated in such reproduction. (*ibid*.: 17)

According to Giddens' perspective structure and action are intrinsically related. Structures involve rules and resources which are subject to human action. Rules control the actions,

resources make them possible. So to that extent, "[t]o examine the structuration of a social system is to examine the modes whereby that system, through the application of generative rules and resources, is produced and reproduced in social interaction" (Giddens, 1976: 353). Despite being related concepts, Giddens draws attention to the fact that systems and structures are not exactly alike. While systems emerge from the "patterning of social relations" (Giddens, 1986 [1984]: 17) among the members of social groups, from what Goffman (1983) defines as 'interaction order'. Structures are different in nature since they result from the structuration of social practices according to sets of rules that define how those practices should be performed; which moral rules are considered appropriate for each social occasion; how resources should be allocated within the society; and how social lives are organized: time and space perception, social mobility, legitimacy, and authority. Some examples are the economic, political, and educational structures, which are all constituted around structured social practices.

For the last two decades research on social life developed within virtual spaces acknowledged that different social structures are emerging according to the characteristics of the platforms available for online interaction. As shown in Part II, different social systems are being constituted within tridimensional virtual worlds through rich online interaction, and with the rise of those systems, one is also witnessing the formation of remediated social structures (Krotoski, 2009; Krotoski, Lyons, and Barnett, 2009). The observation of *Second Life* led to the conclusion that, as proposed by Giddens in his analysis of the organization of the modern society, social dynamics within this open-ended social game are being arranged around the 'duality of structure'. I suggest that within this virtual world social structures also result from the articulation between rules, resources and agency.

In order to realize how social structures are being remediated within *Second Life*, the following subchapters will be focused on the constitution of two particular structures – the economic and the legal. The analysis of the structuration of in-world society will take into account the relationship that is being set between the implicit and explicit rules that determine the expected behavior of avatars, the available resources and the possibility that is given to all users to assume the role of agents within this digital setting. This exploratory analysis also intends to articulate the structural consequences of the emergence of

'dematerialized' complex spaces for social interaction, with the cultural and social dimensions of the 'mediascape' (Appadurai, 1996) provided by the virtual world of *Second Life*.

2.2.1. Economy

> The modern consumer society turned the spending of money not only into a central economic practice, but into a dynamic, complex cultural and social activity.
>
> (Zelizer, 2011: 137)

Second Life's economic dimension combines two main elements. On the one hand it is based on a market economy constituted around a monetary unit – the Linden Dollar. On the other hand it may be perceived as a gift economy – an economy based on the act of sharing and giving to others. Residents give time, resources and sometimes even share skills with each other, contributing to the coming of age of this virtual world. Despite the role performed by 'social gifts' and its importance for avatars interaction, the in-world society is mainly characterized by its capitalist dimension. One of the main activities pursued by users is to buy and sell different kinds of commodities. However, I would like to propose that 'social gifts' are important because they add a layer of social proximity between avatars.

The history of the web and of virtual communities has been shaped around 'social gifts', reflecting an extension of traditional archaic rituals into cyberspace: "[…] if one belongs to others and not to oneself, […] one expresses one's attachment by subordinating one's own ambitions to the common interest" (Mauss, 1966 [1950]: v-vi). However, as Mauss calls attention to gifts are never free, they are objects of reciprocal exchange, which "are never completely separated from the men who exchange them" (*ibid*.: 31). Gift exchange is a ritualistic way for achieving social bond, but also mutual interdependence. Nevertheless, I consider that one important difference is noticed when analyzing the dimension of 'social gifts' in the formation of virtual communities, within these communities gifts are acts of generosity, and not only social obligations.

In *Second Life* the presence of gifts is evident since it is a *prodused* virtual environment. Through the development of in-world geography residents offer each other the possibility of having a socially dynamic digital experience: "[…] gift exchange stages a relation between persons. […] Persons constitute themselves as such, actualizing the virtual relations from which they are composed, by anticipating the effect on their counterpart in the exchange relation" (Pottage, 2001:114). Boellstorff considers that the gift economy that is being developed in-world is shaped by the nature of the objects created by residents, which he designates as 'transitional objects':[214] "[objects] instantiated experientially real places; like objects in the actual world, they could participate in forms of social action and take their worlds 'as present or given'" (Boellstorff, 2008: 100). The relationship established with 'transitional objects' gains new meaning in virtual worlds, once they can be embodied in a new form. The building activity in *Second Life* results most of the times in the creation of objects that will be shared with the other residents either by becoming part of public spaces, or by being offered for L$0. Users are taking the opportunity of being producers and sharing with each other their time, skills, and digital resources.

The market economy that is being organized within *Second Life* has as central element the existence of a monetary unit.[215] In *The Philosophy of Money* (1982 [1978]), Georg Simmel conceptualized money as a symbol and analyzed its effects upon people and society. Simmel proposes that money transformed real exchange into a symbolical one. The abstraction of money led to the rising of a new form of social interaction – the economic exchange (cf. Simmel, 1982 [1978]). Social development has been shaped by the element money once "with money in our pocket, we are free […]" (Simmel, 1991: 23). Money then became one of the most prominent elements of modern societies, but regardless the social evolution of the present era – an era characterized by the massification of new communication technologies, OECD considers that the three classic functions of money

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[214] The notion of 'transitional objects' was proposed by D.W. Winnicott (1999 [1971]) to characterize the objects with which children establish a close relationship, like blankets and teddy bears. These objects "[…] are not part of the infant's body yet are not fully recognized as belonging to external reality" (3). Through them is created a "potential space between the individual and the environment", "the place where cultural experience is located" (Winnicott, 1993 [1967]: 8).

[215] Linden Lab in the ToS of *Second Life* refer to the Linden Dollar as a 'token' not assuming that it may be understood as a micro-currency. In fact the majority of massive multiplayer online role-playing games have economic systems – players need to have 'money' (usually designated by gold) to be able to buy artefacts to empower their avatars. What makes *Second Life* different is not the fact that it has its own economic system or even its own 'currency', but the possibility of exchanging its virtual money for 'real' one and vice versa. This distinguishing feature is making its economy almost as complex as the real one.

are not expected to change in near future. The rise of new digital forms of payment that make the economy more and more global is expected. Nevertheless, money will continue to be a unit of account, a means of payment, and a storage of value (cf. Miller, Michalski, and Stevens, 2002).

Several pieces of research have been done about money offering only an economic point of view to understand this social element. However, having in mind the advent of new common currencies like the Euro it becomes pertinent to understand money's role as an element of cultural identity and of social cohesion. Money is part of daily capitalist interaction, and it takes a major role in shaping everyday rituals of social interaction.

National currencies appeared in the nineteenth century. They resulted from the organization of nation-states, and from the need to strengthen identity bonds in order to consolidate "imagined communities" (cf. Helleiner, 2003). National currencies rapidly became part of daily life and money became "a medium through which social consensus, social integration and territorial borders are produced and reproduced" (Gilbert and Helleiner, 1999: 40). The creation of currencies has connected people and territory, as well as nation and state. It contributed to the invention of tradition since money is the most universal form of public imagery (cf. Hobsbawm and Ranger, 1983: 281). Besides this characteristic of territorial limitation, currency is part of a community's cultural identity – national currencies are tangible symbols of a common identity.

With the Euro's appearance a change in the individual currencies' role was observed, once several European countries replaced their national currencies by a common one, one symbolizing a collective European identity. The creation of a common currency that links 17 of the 27 European countries is the result of European Union's (EU) consolidation. Symbols are taking a very important part in EU's affirmation as a community. The flag, anthem, motto, currency and commemorative day are the signs chosen to represent the union among different countries from the same continent. If one adds to this set of symbols the political meetings between EU members and the democratic rights of the citizens it is possible to realize that EU is a large imagined community, a community created to connect people through rituals (Anderson, 1999 [1983]). Currency is in fact one of the most present elements in the daily life of EU citizens, and contrary to what happened in the nineteenth century, the Euro blurred economic frontiers and is contributing to the invention of a

European tradition. The share of a currency might increase the feeling of belonging to a community since it is an official symbol produced by the Government or central bank. Currency then may be seen as a daily remembrance of citizens' connection to the state and as one of the elements that reinforces the belonging to a common social entity, despite the different cultural roots of its members.

The example of the Euro as an element contributing to the formation and consolidation of a community through a currency may be used to grasp the impact that emergent virtual currencies, like the Linden Dollar, have for the development of virtual economies that are leading to the emergence of virtual *moneyscapes*. The concept *moneyscape* is rooted in Appadurai's different fluid 'scapes' essential to understand social and cultural practices in globalized societies. *Moneyscapes* are considered to be complementary to 'financescapes'. Financescapes are related to a global capital disposition that is "a more mysterious, rapid and difficult landscape to follow than ever before" (Appadurai, 1996: 34). *Moneyscape* refers to the dimension of contemporary lives that is connected to money, either as an economic element, or as a cultural one.

Second Life's development level has improved so much since its launch in 2003 that now it is possible to do almost everything that one can do in first life, and residents are exploring more and more the possibilities offered by this platform. The growth of residents' interest in in-world's activities had encouraged economic development. Nonetheless, this interest was also promoted by *Second Life*'s intellectual property rules, which define that everybody owns the intellectual property of what they create. This innovative right helped to stimulate the economy and residents began to invest time and money in this virtual place. Linden Lab's business model then is based on the premise: residents pay for the land, they may build whatever they want, they may charge visitors for activities or products, and at the end take the earned Linden Dollars and change them for 'first life' money.

The possibility of exchanging Linden Dollars for a material currency is one of the characteristics that made *Second Life*'s economic activity so prominent – an average of

USD$30 million are traded monthly through LindeX.[216] This volume of transactions makes it one of the largest user-generated virtual economies. In order to understand how Linden Lab's policies regarding this virtual world are influencing the development of its economic dimension, I suggest that three key-moments of *Second Life*'s history should be analyzed: the LindeX's creation in 2006, gambling prohibition in 2007, and the Xstreet acquisition in 2009. The LindeX is Linden Lab's own currency exchange. Through this service residents are able to buy and sell Linden Dollars. It is available for residents on the platform's website[217] or in several places in-world.[218] This service allows Linden Lab to control the micro-currency value, and since its launch Linden Dollar has been a stable currency. Gambling prohibition also contributed to a better control over the Linden Dollar. As seen in Part I, until 2007 gambling was legal and it was an important activity for in-world's economy. But following the US 2007 gambling law Linden Lab forbade all types of gambling games within *Second Life*. After this decision, the economy suffered a great change and commerce assumed the role of the main economic activity within this digital environment. Commerce became such a major activity that in the beginning of 2009 Linden Lab bought one of the most important shopping web sites of *Second Life*'s products, XStreet.[219] This acquisition made commercial transactions among residents much easier.

Through *Second Life*'s development process Linden Lab made the effort to present its synthetic world as an appellative one in order to compete for audiences with game worlds such as *World of Warcraft* or *EverQuest*. One of *Second Life*'s major strengths has been its economical solidity. Throughout the years – and because of the adjustments described – the Linden Dollar stabilized and began to be seen as the official in-world currency. Users established a close relationship with it and it is the monetary unit used for all kind of transactions. Since LindeX's creation Linden Lab has been able to guarantee its stability and the Linden Dollar's exchange value has remained stable since then – at approximately

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[216] Data available at http://community.secondlife.com/t5/Featured-News/bg-p/blog_feature_news/label-name/economy. Amount of Linden Dollars exchanged in the 3rd quarter 2011.

[217] Only available to registered users.

[218] There are LindeX kiosks at several in-world locations, as well as ATM points. Both of them have the same purpose, but configuring them in different formats allows two different first life activities to be recognized – money exchange and cash withdrawals.

[219] XStreet was replaced by *Second Life* Market Place in 2010.

L$250 to the US Dollar.[220] This constancy was understood as an invitation to investment and I suggest that residents are transforming the possibility of having a second life into a virtual representation of the first one − while in-world they are in a synthetic world but have a 'real' economic behavior (cf. Castronova, 2005).

The policies followed by Linden Lab regarding the economy are influencing not only residents' consumption behavior, but also their will to be producers of content to be sold (or given for free). The combination of these policies with the gift economy established among users is contributing to the emergence of a new kind of commodity economy[221] which Boellstorff (2008) designates as 'creationist capitalism' − "a social order constituting relationships between persons through what are held to be prior acts of individual creativity" (100). This creative approach to the capitalist system is being developed by a 'creative class', and is influenced by the general principles of neoliberalism. T.L. Taylor, for instance, considers that this joint venture between neoliberal perspectives and virtual worlds is "particularly powerful because they set precedents for the networked future in which spaces and experience come to be mediated primarily through commercialized systems of authorship and exchange" (Taylor, 2006: 126).

'Creationist capitalism' sees production as creation, users "draw on obligations through their social networks as a resource just as they do their material resources" (Malaby, 2006: 146). In order to achieve a better understanding of what 'creationist capitalism' is, Boellstorff (2008) argues that one should recognize that its basic principles are being structured around contemporary capitalist systems, mainly following what Barbrook and Cameron (2001) designate by the 'Californian ideology'. The Californian ideology emerges from the particular culture that is being developed within the American state of California characterized by the mix of the Silicon Valley 'ideology' with the bohemian lifestyle of San Francisco:

> […]the Californian ideology promiscuously combines the free-wheeling spirit of the hippies and the entrepreneurial zeal of the yuppies. This amalgamation of opposites

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[220] Data available at LindeX (only accessible to registered users).
[221] "[…] in a commodity economy, both persons and things are objectified as things. […] The agency of persons is therefore understood in terms of an idiom of labor, or productivity, so that personal relations are reified in the composition of things" (Pottage, 2001: 114).

has been achieved through a profound faith in the emancipatory potential of the new information technologies." (Barbrook and Cameron, 2001: 364)

This ideology is based on the economic model of *prosumption* within which subjects develop advanced consumption skills, influencing what is produced, configuring consumption as a form of production. Virtual worlds may be ideal spaces for expanding this perspective, and as Boellstorff points out *Second Life* put the 'creationist capitalist' system into practice like no other virtual world before it: "[…] creativity operated as its primary mode of production, governance, and subjectivation (self-making)" (Boellstorff, 2008: 2010). I would like to suggest that once Linden Lab acknowledged that creativity should be stimulated and nourished, it was implicitly decided that within this virtual world residents should not only be *prosumers,* they should be *produsers* – they should produce what they want to use/consume, and that creativity could be a way 'to make' money. During the fieldwork users' creativity and its importance for *Second Life*'s economic system became evident. The majority of the visited locations offered visitors some kind of products to buy or test, most of the times these products were available in well-defined shopping areas, like the ones described in the following field notes:

> YadNi's Junkyard was the first organized freebie store of *Second Life*; it has been 'open' since 2004. Besides the area of the store, this location offers visitors a learning area with basic information for newcomers, and a sandbox zone (test area). Within the store one finds not only freebies designed by YadNi Monde – these products are organized by creation date and arranged throughout three floors; but also promotional products by other in-world designers. (Field notes of the visit to YadNi's Junkyard, March 3, 2010 [second phase])

> Steelhead Capital City Commons is organized around two main areas – the commercial and the residential one. Both following the motto of this location – a Victorian industrial city. The heart of the commercial area is the City Hall, all the commercial activity is organized around this building. Also available is a hotel with a ballroom where it is possible to organize different types of events. There are different types of stores, the majority selling clothes and accessories designed by residents that have their own in-world brand and line of products. (Field notes of the visit to Steelhead Capital City Commons, March 24, 2010 [second phase])

The interviews with residents of this virtual environment also made visible the importance of being able to be creative, and taking advantage of that creativity in-world. Among the interviewees there were creators of different types of products, from textures essential to attribute first life characteristics to objects,[222] to designers of 'complete' products like

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[222] According to *Second Life* Wiki, "[a] texture can be used to cover the faces of a prim as a visual representation of the material and look of an object or be used to make clothing or other tattoos or be put in a

clothes, avatars' elements and furniture. The majority of them stated that they earn money from these activities. However, in *Second Life*'s creationist model residents contribute to the economic system not only by designing and/or buying products made by fellow residents, but they also contribute with other types of 'labor'. Avatars' bodies are often used as alternative means of earning money, showing that creativity within this economic system goes beyond the possibility of 'building'. Besides the controversial[223] use of avatars for sex-related activities,[224] residents also use their digital representatives to work. Informal jobs like 'camping' are very popular, but there are also more 'formal jobs' announced through *Second Life* classifieds[225] – in the employment section. Among the most common job offers are requests for fashion models, hosts for in-world events, sales representatives, designers and dancers – the latter are usually for night and strip clubs. In an analysis of the role of labor in-world, Boellstorff suggests that "[t]he existence of labor within *Second Life* was part of this broader political economic reconfiguration, shaped by emergent forms of cybersociality" (Boellstorff, 2008: 212). The 'creationist capitalism' that is being developed within this and other virtual worlds is blurring the frontier between work and play and is contributing to make these two dimensions "indistinguishable from each other" (Yee, 2006b: 68), because "production is melting into play" (Dibbell, 2007a [2006]: 299).

I consider that *Second Life*'s prominent economic development in its different dimensions is having consequences at two levels in the economy: in-world and 'out-world', meaning second and first life's economies, respectively. At the level of the in-world economy an increase of monetary investment is being observed, residents are exchanging more 'real-value' money for virtual money, and this is stimulating transactions among them, which ends up influencing the *produsage* of digital content and services. On the other hand at the level of the first life economy, residents are exchanging more Linden Dollars for currencies

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notecard. Textures can be purchased or found for free in-world, or created in third-party graphics programs and uploaded to *Second Life* for L$10 per image" (retrieved, June 2012, from http://wiki.secondlife.com/wiki/Texture).

[223] This controversy is mainly related with the use of child-like avatars, one example was the investigation conducted by German policy on child pornography in *Second Life* – http://www.guardian.co.uk/technology/2007/may/08/secondlife.web20 (last visited February 2012).

[224] The proliferation of such activities was the major drive for the creation of the newest continent Zindra, and for the availability of a filter that allow residents to choose which type of content should be shown when they use in-world search engine.

[225] secondlife.com/community/classifieds.

that have a 'real' market value. This means that there is a higher volume of virtual *prodused* money entering the 'actual' economy, and it is important to understand the impact that this new economic dimension may have. I would like to suggest that the economic capital *prodused* inside virtual worlds is the result of the emergence of an alternative social dimension. People are cultivating new and existing social networks in cyberspace which is leading to the rise of a new social-economic dimension constituted in a 'virtual mediascape' (Castronova, 2002, 2005; Dibbell, 2007a [2006]; Malaby, 2006). *Second Life*'s importance as a new *moneyscape* is growing and despite the world economic crisis residents and first life companies continue investing time and money in this virtual world, and to exchange considerable amounts of first life currencies for Linden Dollars, and vice versa. This phenomenon might be understood as the growth of a parallel economic dimension which is being based on a virtual micro-currency, social relationships, and above all residents' creativity. And as will be shown in the following sub-chapter on the role of law within *Second Life*, the economic organization of this virtual world is raising questions concerning law, authorship and ownership (Castronova, 2005; Lastowka, 2010).

2.2.2. Law

> Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather. […] Governments derive their just powers from the consent of the governed. You have neither solicited nor received ours. We did not invite you. You do not know us, nor do you know our world. Cyberspace does not lie within your borders.

> (Barlow, 2001: 28)

The 'Declaration of the Independence of Cyberspace' was originally proposed by John Perry Barlow in 1996, just a few years after the launch of commercial internet access. By that time Barlow's words were spread through the digital networks, he sent an e-mail reacting against an American law approved by the Senate that sought "to place restrictive constrains on the conversation in cyberspace" (Barlow, 2001: 27). The discussion triggered by the e-mail was another step in the chain of legal and juridical questions raised by the emergence of cyberspace. The relationship between law and cyberspace has been a

complex one. Over more than two decades lawyers and legal scholars have discussed how first life legal regulations should be applied to internet and virtual property. A general consensus has not been achieved yet, but there are some new laws resulting from the impact of the internet in daily lives. Despite not including all the different types of media that operate within the web, cyber law is already applied in order to control some infractions that may occur within or through the internet. Some of these laws are, for example, those which criminalize computer hacking, protect personal privacy online, grant legal rights over domain names, and set the main conditions of online contracts (Lastowka, 2010). However, the internet keeps evolving and it is becoming mandatory that these new laws include all type of crimes that might occur in cyberspace, even those taking place within virtual worlds, or involving virtual property:

> When tens of millions of people start spending billions of dollars on virtual objects, there will inevitably be disputes that lead to lawsuits. The questions that these lawsuits raise seem unusual enough to warrant a separate field of legal analysis. The generic term for this new field is 'virtual law'. Though there are at least two hundred legal publications and many court cases dealing with the interplay of law and virtual worlds, there is no authoritative body of virtual law today, or even much of a consensus that this field should really exist as a separate arena of legal doctrine. (Lastowka, 2010: 11)

The traditional viewpoints regarding the relationship between law and cyberspace advocated that either cyberspace should be seen as a separate entity that should have its own set of rules – as proposed, for instance, by Barlow's 'Declaration of the Independence of Cyberspace', or that cyberspace should not be seen as being different from 'real' world, and should be administrated by the same laws (Stoup, 2008). More recently a third perspective was proposed, which acknowledges that cyberspace should be seen as a separate space of action where above all "code is law", but that it needs nonetheless to some extent be regulated by first life laws (Lessig, 2006 [1999]). Lawrence Lessig's proposal draws upon Mitchell's (1996 [1995]) idea that the code of cyberspace is its law. Despite recognizing that the statute of programming code is hardly comparable with the statute of first life constitutions and other legal codes, Lessig argues that it is necessary to acknowledge the role played by the code in the regulation of cyberspace. The 'code' of cyberspace is constituted around the 'laws' defined through software and hardware that regulate users' actions within cyberspace:

> Life in cyberspace is regulated primarily through the code of cyberspace. […] Regulated in the sense that bars on a prison regulate the movement of a prisoner, or

> regulated in the sense that stairs regulate the access of the disabled. Code is a regulator in cyberspace because it defines the terms upon which cyberspace is offered. And those who set those terms increasingly recognize the code as a means to achieving the behaviors that benefit them best. (Lessig, 2006 [1999]: 83-84)

The recognition of the importance of code in the regulation of cyberspace does not mean that the code is seen as the only possible and adequate regulator of online actions (and interactions). Contrary to what is defended by the 'techno-libertarians', who understand cyberspace and internet-based activity as being part of a parallel dimension of human lives that should not be regulated by traditional legal systems,[226] Lessig identifies the need for a regulatory system that articulates the 'laws' of code with the laws and rights of first live. However, he argues that this only will be totally possible if governments get involved with the cyberspace, since they are the best suited entities to assure internet users' rights. In any case, this regulation should be adapted keeping in mind internet specificities and the values that shaped its development.[227] This alternative perspective on the relationship that should be established between law and cyberspace claims that "the choice [should not be] between territorial law and cyberspace liberty, but between the institution of law and the technological sovereignty of companies like Microsoft, who [are] writing the code that [will] shape society online" (Lastowka, 2010: 149).

The state of the art of internet law does not reflect Lessig's claims, and 'code-owners' remain the regulators of the available platforms. Regulation is exerted through 'code-control' and contract. Where contracts are concerned, the tendency is that these contracts – usually called Terms of Service (ToS) or End User License Agreement (EULA), mainly preserve owning companies' rights. The only right users have most of the time is the right to be treated with respect by other users. For users of the majority of web-based platforms available this type of contract may seem acceptable, however its adequacy for contexts like those provided by virtual worlds has been questioned. Questions have been raised not only

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[226] Technological utopias regarding the emancipator power of new technologies were the trigger of the techno-libertarian movements of the 1990s, such as the transhumanism and the cyberfeminism, for example. The contemporary activist group 'Anonymous' also pursues some techno-libertarian ideologies. This group was organized by anonymous internet users from all over the world, who disagree with the internet censorship and surveillance, and together had hacked several government and major companies' websites in order to claim their right to an open internet. One of their major activities was the organized protest against the 'Stop Online Piracy Act', also known as SOPA. SOPA is a proposed law introduced in the United States Houses of Representatives by the Representative Lamar S. Smith suggesting the enforcement of US law in order to fight the online infringement of copyrighted material.

[227] For instance, the internet has been developed through 'policies' of open access, open-source and nonproprietary protocols (Lessig, 2004, 2006 [1999].

by those who defend the freedom of cyberspace, but also by the followers of more moderate perspectives, and even by some of those who consider that the regulation of cyberspace should not even be a question. For instance, Tim Wu a defender of the total regulation of cyberspace (Goldsmith and Wu, 2006) argues that due to its nature the virtual social spaces generated within MUDs, the 'ancestors' of contemporary virtual worlds, should not be regulated by the same laws that should be applied to control cyberspace: "for a group of MUD users whose environment is entirely virtual and who perhaps see their physical lives as distinctly secondary, allowing this group of people to make their own rules does not seem outrageous" (Wu, 1999: 1196-7).

Virtual worlds are currently regulated by the same principles that regulate software use (Balkin, 2006). However, as Lastowka and Hunter (2004) call attention to, despite the majority of virtual worlds being considered 'simple' game spaces, their development is indicating that users see them as something more, they are becoming significant places where people interact, shop, sell, and work.[228] I consider that the development of virtual worlds as places for significant social action is leading to a change in the possibilities offered by cyberspace regarding content production. The organization of virtual worlds around economic structures which allow users to invest and earn money while 'inhabiting' these worlds may be seen as the reason why it is becoming so important to articulate the regulation of these spaces with the laws of first life. In their groundbreaking analysis of the laws of virtual worlds, Lastowka and Hunter suggest that there are three main reasons for considering the laws of virtual worlds significant. First, contemporary virtual worlds tend to be increasingly important in the future; second, the economic boundaries between first and second lives are becoming more and more blurred; and, third, virtual worlds are very important stages for experimenting with law-making, providing several challenges for first life legal systems.[229]

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[228] Mia Consalvo, for instance, suggests that each virtual world can provide users a unique subculture (Consalvo, 2007: 3-5).

[229] These challenges are not only posed by virtual worlds. The rapid development of cyberspace is also raising important issues. United Nations had already recognized that internet access must be considered an inalienable fundamental right since it is essential to contemporary life, and that governments should not control cyberspace in order to block the access to online content. However, the rights of internet users have not been declared yet, and sometimes the subject's founding rights may be questioned within these digital settings.

The main challenges that are being posed by virtual worlds result from the difficulty in articulating 'code laws' with traditional legal systems. One of the most problematic questions to solve seems to be jurisdiction, as will be seen later, and while consensus is not achieved, control over these virtual environments is managed only by the companies which own the different platforms. Nonetheless, this solution is also posing uncertainties because the number of cases presented to first life courts concerning virtual crimes is growing (Lastowka, 2010). Virtual crime is one of the results of attributing virtual worlds' regulation to software companies. While different 'cybercrimes' are already recognized as 'actual' crimes that have the particularity of having been committed against a computer, or by means of a computer (Lastowka and Hunter, 2006), 'virtual crimes'[230] are those occurring within virtual spaces or involving virtual property:

> Such "crimes" may cause real psychological, social, and financial harms to their victims and they may grossly transgress reasonable and sensible civic expectations of behavior, but they are not activities that tend to fall within the scope of existing criminal prohibitions due, in part, to the unique nature of virtual spaces. (Lastowka and Hunter, 2006: 124)

Virtual crimes are often devalued by owning companies that tend to manage their virtual settings only by the rules defined in the ToS. However, as Greg Lastowka (2010) draws attention to, virtual worlds have a social impact on users' legal expectations. Much of these expectations are due to the understanding of the virtual space as 'natural' spaces for social interaction, and since "law regulates action within a social system" (Lastowka and Hunter, 2004: 12), users expect that some of their 'virtual rights' should also be protected. These rights are mainly related to virtual property. In order to further explain what he means by the 'social impact of virtual worlds on standard legal expectations', Lastowka discusses two cases involving two virtual worlds managed by Electronic Arts – *Ultima Online* and *The Sims Online*. In my opinion, both cases emphasize how virtual worlds should not be regulated only by 'code owners', since users' right to virtual property or free speech are rarely foreseen in the ToS. The 'case' of *Ultima Online* is an example how the rules do not always protect players' right to 'avatars' property'. According to the ToS:

> First we should point out that anything considered a valid play style in *Ultima Online* is not considered harassment. In other words, player killing and thievery, including

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[230] The first known virtual crime was a case reported by Julian Dibbell (1998) known as "a rape in cyperspace". The incident took place within the MUD *LambdaMOO*, and involved a resident known as Mr. Bungle and his use of a kind of voodoo doll to control other residents' characters.

res-killing, is not considered harassment. By valid, we mean that there are game mechanics created around these play styles in Felucca, such as stat loss, the thieving skill, bounty systems, murder counts, the existence of guards, etc. *Ultima Online* is a role-playing game that encourages various play styles, and players should seek ways of protecting themselves against these play styles through game mechanics rather than calling on customer support staff for help in these cases. Note that this does not include player-killing in Trammel. Trammel was created as a safe land where players cannot harm other players, and violating the intended game mechanics in that area is not considered a valid play style.[231]

So, if a player is robbed he has no one he could complain to. Electronic Arts considers on the one hand that players have the obligation to protect their goods, and on the other hand thievery is considered a play style. The question arising from this rule is how market valued 'virtual property' could be not protected in any way by the virtual world owner. If these virtual assets are traded by users on platforms like *ebay* for first life currencies, how could they worth nothing according to the virtual world rules?

The second case discussed by Lastowka was an incident involving the Philosophy scholar Peter Ludlow and his virtual newspaper based at Alphaville, a 'city' within *The Sims Online*. Ludlow launched the *Alphaville Herald* in order to report the major events of the life within this virtual environment. Among the stories covered were controversial topics related to prostitution and economic scams occurring in-world. Electronic Arts did not enjoy the way Ludlow was approaching in-world activity. And e-mailed him demanding the end of his journalistic activities within their virtual world, as those activities were infringing the game ToS. As Ludlow did not obey he was banned from this virtual world. Or as he describes it:

> It was a quiet night at the Alphaville Herald. The newspaper had been put to bed and a man known as Urizenus, its publisher, was as usual the last one in the office. He busied himself closing up shop, tending to fireplaces and cleaning up the messes that had accumulated over the course of the day. […] Then he turned out the lights, locked up for the night, and headed home.
>
> Alphaville never saw him again.
>
> A few nights later, in mid-December 2003, Urizenus was snuffed out, his life terminated by a powerful unseen foe. […] His killers robbed him of his money, emptied his bank account, made off with much of his equipment and supplies. (Ludlow and Wallace, 2007: 5)

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[231] *Ultima Online*'s harassment policy available at http://support.uo.com/harass.html (last visited June, 2012).

Ludlow was not able to reverse Electronic Arts banishment, but he did not accept it passively. This case gained a lot of media attention when newspapers like *The New York Times*[232] begin covering the story and questioning the existence of free speech within virtual worlds. Despite not being able to recover his investment in *The Sims Online*, Ludlow continued to cover the main news regarding virtual worlds. After being expelled from Electronic Arts' world, Ludlow focused his activity in other virtual worlds, and *Second Life* became one of his primary sources for what was happening in-world.

These two cases should be considered paradigmatic of private companies will to fully control their virtual environments, neglecting the users' right to virtual property and free speech. But these cases also pose the question: "[i]f the law affords the owners of virtual worlds this sort of freedom, will virtual worlds […] become new sites for the emergence of new forms of law?" (Lastowka, 2010: 14). These new laws are transforming virtual worlds into what Lastowka defines as "zones of private corporate authority" where rules are defined by "click-wrap" contracts defining software use conditions (*ibid*.: 89-90).

One of the major elements at stake with the option for a non-penalizing policy regarding virtual crime is virtual property. However, this type of goods is among the main triggers that compel users into these environments. The 'actual' value of virtual property is one of the more discussed aspects concerning the legal dimension of virtual worlds. Contemporary virtual worlds are being developed around a property system, which according to Lastowka and Hunter (2004) has all the characteristics of first life systems: "exclusive ownership, persistence of rights, transfer under conditions of agreement and duress, and a currency system to support trade" (30). I suggest that these conditions along with the fact that virtual worlds exist within digital territorial boundaries, and are understood by their residents as places, contribute to the legal expectation users have regarding these environments. Perhaps, because "[p]rivate property systems inevitably present the potential for social conflict by granting private ownership rights that can be infringed by trespass and conversion" (Lastowka and Hunter, 2006: 121-2). This means

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[232] In January 15, 2004 an article entitled "A Real-Life Debate on Free Expression in a Cyberspace City", by Amy Harmon, was published in *The New York Times*. This article exposes Ludlow's case and questions users' right to free speech in virtual worlds owned by private companies.

that it is the growing complexity of in-world economic systems that is leading to the urgency of solving the main problems regarding the regulation of virtual worlds.[233]

Virtual property is considered one of the most complex elements of virtual worlds because it directly connects first and second lives. I would like to suggest that it adds an extra layer to the already complex relationship set between users and their avatars. If recognized as a form of property, virtual assets may be protected by first life laws regarding intellectual property, specifically copyright laws. According to Lastowka "the formal definition of property suggests that essentially anything can be considered property, as long as the law is willing to recognize that thing as property" (Lastowka, 2010: 128). He argues that with the actual American legislation there are three different types of processes focusing on virtual property that could be accepted by courts: (1) user lawsuits against virtual world owners; (2) user lawsuits against other users; and (3) lawsuits brought by non-users and non-owners (*ibid*.: 139). The main question involving virtual property then is not if it exists or not, but the nature of the virtual property rights. The legal document that defines the conditions of use of the virtual world is the ToS contract, users agree to the contract in order to access the gamespace. These contracts often deny users interests in virtual property because they approach virtual worlds as 'simple' software. However, I propose that as users are more and more included in the *produsage* of the virtual environments, the contracts they 'sign' to access those spaces should also acknowledge them some legal rights over their creations.

In order to protect 'virtual property' the solution foreseen by legal scholars like Lawrence Lessig and Greg Lastowka is its recognition as a form of property protected by first life laws. However, territorial jurisdiction over these worlds does not seem to be an easy question to solve. Laws are traditionally associated with territorial sovereignty; nonetheless the number of international and subnational legal regimes is increasing (Lastowka, 2010). As the main problem regarding laws including cyberspace is to define who has jurisdiction over the case, perhaps the solution lays on the constitution of an international regulatory system that despite being based on first life laws, takes into consideration the specificities

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[233] South Korea, the country with the highest percentage of virtual worlds' users, had recognized the importance of virtual crimes. Korean police are already able to deal with small-scale frauds occurring between Korean virtual world users, like the *BBC News Online* technology correspondent Mark Ward reported, in the article 'Does virtual crime need real justice?' (available at http://news.bbc.co.uk/2/hi/technology/3138456.stm, last visited July 2012).

of the different web-based spaces which allow users to become *produsers*. While this international legal system is not defined, it will only be possible to solve 'virtual crimes' occurring within the same territorial jurisdiction.

The virtual world of *Second Life* is being developed within this atmosphere of uncertainty regarding the legal dimension of virtual worlds. However, I would like to argue that its case is a particular one since Linden Lab recognizes the users' right to the intellectual property of everything they create. Notwithstanding, as Lastowka and Hunter (2004) argue "[i]t is one thing for property to be recognized within a virtual world. It is another for this fact to have any significance […] in the real world" (29). As seen throughout the last chapter, *Second Life* is an example of a hybrid economy (Lessig, 2009 [2008]), combining shared and capitalist economic systems. It is a particular example of a hybrid economy, the only one of its kind, because residents are not only the users of this virtual world, but they are owners of a major part of the virtual content available in-world. As Lessig puts it, *Second Life* offers the possibility of developing a new type of virtual community, one in which residents contribute (1) the good of help; (2) the gift of beauty; (3) code; (4) with regulatory institutions; and (5) where residents deal with acts of self-governance (Lessig, 2009 [2008]: 215-7).

The development and regulation of this shared environment is managed both by Linden Lab and residents. However, as happens in the majority of virtual worlds, users 'sign' a software-like contract in order to be able to create an avatar and access the digital setting. Linden Lab's role as regulator is mainly exerted through the definition of the ToS, and through the 'partial' control of the code. I suggest that the control over the code should be considered to be partial because in 2007 Linden Lab released open source versions of its client software for Windows, Mac OS, and Linux.[234] From this moment on, the control over the code was also made available to users.[235] Besides (partly) controlling the code residents are acknowledged the right to the intellectual property of what they create, and as

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[234] For more information on this topic, see, for instance, *CNN Money* article '*Second Life* to go open source', available at http://money.cnn.com/2007/01/07/technology/secondlife.fortune/index.htm (last visited July 2012).

[235] According to Lastowka the control over the code is one of the most important aspects for the development of a second life: "[c]ode provides a framework for your identity, your community, your economic behavior, your creativity, and your communications. Code is the very substance of a virtual world. It may not be law per se, but the rules that software imposes on virtual world users may be more important to them than legal rules" (Lastowka, 2010: 149-150).

produsers of this virtual world they are also contributing to the organization of an in-world legal system, intended to help protecting residents and their virtual property. One of the most important entities ever created by a resident was the in-world notary– Nota Bene (cf. Lessig, 2009 [2008]). Zarf Vantongerloo is the name of the resident that created this in-world legal service. In 2005 Zarf concluded that due to the growing importance of transactions among residents, a way of authenticating the contracts celebrated among them was necessary:

> Nota Bene employs modern, cryptographic techniques for ensuring the integrity of its notarizations and communications. All protocols use publicly available algorithms. The notarizations use RSA public-key encryption with 2048 bit keys, and can be independently verified.[236]

The articulation between Linden Lab's regulation and residents contribute to in-world social development has not always been peaceful, and *Second Life* has triggered several cases presented to the American courts. The majority of these cases are users' disputes over their intellectual property rights. Intellectual property laws are organized around three main categories: patents, trademarks, and copyrights. According to Lastowka (2010), patent law grants owners the right to decide who can benefit from their inventions; trademarking are rights concerning commercial brands; and copyrights "are the rights that artistic creators have in their creations, including things such as books, music, artwork, animation, and computer software" (*ibid.*: 169). Copyright abuse has been the major legal problem putting residents in conflict with owning companies, and also with other residents. As the second type can be more difficult to manage due to jurisdictional questions, there are also cases in which owning companies were accused by residents of not guarantying their rights when those were abused by fellow residents.[237]

This virtual world was in fact the motive of the first case in the United States involving a dispute over virtual property. A case known as Bragg v. Linden Research, that took place in 2006:

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[236] Description available at 'Nota Bene *Second Life*'s Notary' website at http://www.notabene-sl.com/ (last visited July 2012).

[237] See, for instance, the case involving two residents of *Second Life* – Shannon Grei and Kevin Alderman, against other 'Second Lifers' that allegedly infringed their intellectual property rights covered in a *Computer Weekly*'s article entitled 'Virtual world theft heads to real life court' (available at http://www.computerweekly.com/news/1280090966/Virtual-world-theft-heads-to-real-life-court, last visited July 2012).

Marc Bragg, an attorney from Pennsylvania, was a resident of *Second Life* and a virtual home owner. In fact, Bragg had paid several thousand dollars for various parcels of *Second Life* land. However, on April 30, 2006, something went wrong. Linden Lab claimed that Bragg had used a forbidden technique to purchase land that was not officially listed for public sale. To punish Bragg, Linden Lab [...] banned [him] permanently from *Second Life*, canceling his account. After doing so, it put up all of Bragg's virtual land for resale. In essence, Bragg was forcibly evicted from the virtual world [...]. (Lastowka, 2010: 17)

After this incident, Bragg filed a complaint against Linden Lab not only because he considered his banishment unjust, but he felt he should be entitled the return of his purchase money, or the return of his account.[238] Judge Edward Robreno was the responsible for the case and in a *memorandum* issued an opinion on some preliminary aspects concerning this process:

Ultimately at issue in this case are the novel questions of what rights and obligations grow out of the relationship between the owner and creator of a virtual world and its resident-customers. While the property and the world where it is found are 'virtual', the dispute is real.[239]

This case involved different motions issued both by Linden Lab and by Marc Bragg. Judge Robreno denied all of them. However, in the *memorandum* it was evident that his opinion was that the contract that users are given to 'sign' is too one-sided favoring only Linden Lab. Once the Judge published his opinion on the case, an agreement between the parties was settled, the terms of the settlement were kept confidential. Though, as Lastowka claims, "[a]s a matter of law, the fundamental question raised by the lawsuit – the legal status of virtual property interests – remains unanswered" (Lastowka, 2010: 19).

Despite the legal disputes involving virtual property and rights, the ultimate regulation of virtual worlds still is in the hands of the owning companies. In cases like *Second Life* this reality could contribute to the growing of legal problems, since residents' rights are not fully protected by the ToS defined by Linden Lab. On one hand the owning company opens its client server code, gives users the opportunity to contribute to in-world development and to retain the intellectual rights of everything they create. On the other hand, by being the only responsible party for setting the 'official' norms of use Linden Lab

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[238] The press release published by Marc Bragg's law firm may be read at the *PR Newswire* website at http://www.prnewswire.com/news-releases/virtual-land-dispute-spills-over-into-real-world-56211482.html (last visited July 2012).
[239] *Memorandum* available at http://www.paed.uscourts.gov/documents/opinions/07D0658P.pdf (last visited July 2012).

ends up protecting their own rights above all. Though, I would like to suggest that if one analyses the impact that this authority has on the daily life within this virtual environment, one realizes that residents do not seem to be very worried. Ever since their basic rights were assured, apparently residents continue to invest in this platform. Residents' basic rights seem to be related to their basic needs (Ensslin, 2011) – they look to access the shared virtual environment, to be able to 'reach' their property, and to keep experiencing the second lives each of them defined for themselves. But when something extraordinary happens that may in some way put at risk their digital existence, residents will show their concerns and sometimes legally fight for what they believe they deserve.

Due to its intrinsic characteristics it may be difficult to keep first life law apart from *Second Life*. This virtual world allows users to 'remix' their digital and physical experiences at so many levels, that it may become problematic to separate them from users' legal expectations (Lastowka, 2010). The hybridization between the users realm of experiences is not a novelty brought by *Second Life*, it was since the appropriation of MUDs by users that it was recognized the potential these digital spaces could have: "[…] virtual communities like *LambdaMOO*, odd hybrids between games and worlds, simulations and society, may prove to be spaces for institutional reimagining, for questioning and reshaping conceptions of self, politics, and law" (Mnookin, 1996). This dual nature of virtual worlds is even more evident in *prodused* environments where users are not only able to create content, but to develop code and create in-world legal institutions. Despite not being as obvious as the emergence of a virtual *moneyscape*, I propose that one could consider that *Second Life* is also contributing to the organization of a virtual *legalscape*. While the *moneyscape* is being constituted around the relationship established between residents and money in a fluid social dimension that mixes first and second lives; the 'embryonic' *legalscape* is being shaped through the entanglement of law and culture brought by users to this digital environment. This 'scape' is emerging from the fluidity of in-world laws that are a combination of Linden Lab's ToS and users 'legal expectations' comprising their right to 'virtual property', as well as the 'legal and moral rights' of their avatars. The main challenge of this *legalscape* seems to reside in its specificities: virtual worlds are 'boundary spaces' and in order to inhabit them players need to play and live between two worlds (Taylor, 2006), and it seems that the main legal problems regarding these spaces are indeed "arising at the borders" (Lastowka, 2010: 11).

Technology has influenced society, and well as has being influenced by it. This mutual influence had contributed to changes in how human beings interact, work, are entertained, and even how they understand the world. Information and communication technologies are no different from other technological artifacts, and it is expected that they will contribute to some degree of social adjustment. In order to better explain how this relationship is almost inevitable in the opening of *Free Culture* (2004) Lawrence Lessig recalls how the invention of the airplane and its transformation into a public means of transportation turned out to have legal implications, and to make it clear that a change in the law was needed:

> At the time the Wright brothers invented the airplane, American law held that a property owner presumptively owned not just the surface of his land, but all the land below, down to the center of the earth, and all the space above, to "an indefinite extent, upwards". […]

> Then came airplanes, and for the first time, this principle of American law […] mattered. If my land reaches to the heavens, what happens when United flies over my field? Do I have the right to banish it from my property? Am I allowed to enter into an exclusive license with Delta Airlines? Could we set up an auction to decide how much these rights are worth?

> In 1945, these questions became a federal case. (Lessig, 2004: 1-2)

When a couple of farmers from North Carolina began to feel harmed because military airplanes were flying so low that their chickens became so afraid that they "flew into the barn wall and died" (*ibid*.: 2), they believed that since they owned the area of their plot of land until the heaven, it should be possible to control how the airplanes should fly in their territories. The case was filed and was presented to the Supreme Court. Before this case, the Court acknowledged that the law was outdated and that it should be updated having in mind the needs of the 'modern world':

> [The] doctrine has no place in the modern world. The air is a public highway, as Congress has declared. Were that not true, every transcontinental flight would subject the operator to countless trespass suits. Common sense revolts at the idea. To recognize such private claims to the airspace would clog these highways, seriously interfere with their control and development in the public interest, and transfer into private ownership that to which only the public has a just claim. (*United States v. Causby*, case cited in Lessig, 2004: 2)

Lessig argues that in fact this is how law traditionally works, it gets adapted to the reality of society. However, as both Lessig and Lastowka propose, the law is taking too much time to adapt to the 'rights' of cyberspace users, and this problem is becoming more and more complex with the appearance of 'hybrid communities', like *Second Life* that offer

their users a space for much more than entertainment. Lastowka considers that if law is not changed users will end up only having the opportunity to take part in virtual worlds that are "increasingly profitable, entertaining, and social realms dominated and policed by powerful corporate wizards employing an array of legal and technological tools designed to attract and monetize social relations within virtual communities" (Lastowka, 2010: 195). As a legal scholar, he sees this as an emerging problem that could have several 'actual' legal implications. However, through the analysis of users' behavior over time, Lastowka also acknowledges that the majority of virtual worlds' users may be choosing to develop a second life exactly because these spaces "offer escape into a fantastic and alternative existence" (*ibidem*), and

> [p]erhaps what makes virtual worlds so appealing is the inherent ambiguity present in the virtual realm, where things can be and not be all at once. If we could clearly see and weigh the risks and rewards present in virtual worlds, clarifying the legal status of our interests in them, it might be that we would limit, for better or for worse, the sorts of pleasure they currently provide. (*ibid*.: 195-6)

III. Interaction In-world: Some Concluding Remarks

The third, and last part of the present research on the virtual world *Second Life* had as its main focus the analysis of in-world interaction, essentially taking into account two main dimensions: the interaction among avatars, and the interaction between avatars and the shared virtual environment. The first was explored in chapter one – 'Interacting Virtually', and its subchapter, and the second discussed in chapter two – 'New Social Interaction Rituals', and subsequent subchapters.

Virtual worlds are particular online sites for social interaction, and in order to understand their distinctive characteristics I analyzed how interaction takes place within these platforms. The recognition of these specificities implicitly acknowledged that web-based communication technologies do not always offer users the same kind of affordances. Each type of platform has specific features that are made available to users, offering them different activities with several levels of engagement. In order to identify the social potential of virtual worlds I proposed that they are emerging from the 'trialectics of spatiality' (Soja, 1996) – from the combination of the understanding of space as being conceived, perceived and resulting from lived experience, asserting themselves as 'third places' for social interaction (Oldenburg, 1999 [1989]).

To realize the role performed by these shared environments as 'third places', but also as 'frames' (Goffman,1990 [1959], 1974; Schroeder, 2002) for social interaction, it was necessary to approach online interaction within these spaces as being complementary to a face-to-face one, and not as totally isolated events. Online communication is characterized by being anonymous, flexible, and free once it occurs in cyberspace. Nevertheless, in order to feel sensorially immersed in these digital settings users need to be able to develop feelings of togetherness, and social presence. After feeling engaged with the gamespace and with other users, the residents of virtual worlds begin to create their networks of belonging, which in *Second Life*, as seen previously, mainly assume the form of communities and interest groups. Once created, these social networks should be consolidated through the sharing of social conventions, as verified in first life. To fully comprehend the social life of avatars within a virtual world like the one under analysis, the different dimensions of in-world interaction were discussed. First, attention was paid to the two main social events shaping avatars' social experiences – casual encounters and

organized gatherings. Encounters are more common during the process of adaptation to the digital world, while organized gatherings are common among members of established groups.

The manner interaction occurs within virtual environments is influenced above all by the platform's 'code'. *Second Life* was designed in a way favoring social interaction. While in-world users do not need to get organized to be able to defeat 'super monsters' as it happens in the majority of massive multiplayer role-play games, in *Second Life* interaction is based upon the same principles that characterize face-to-face communication, although occurring in a highly-mediated digital space. Within this virtual world avatars are always aware of the presence of others, and they tend to perform recognizable social roles. Besides the features defined by the code, being a *prodused* environment, it also gives residents the possibility to improve how contact among avatars is encouraged. One of the more visible aspects is users' preference for seating places that foster interaction. Most of these sittings are part of social-rich public locations, and are improved with poseballs that when activated pose avatars' bodies in predefined positions. The investment users are making in adapting the setting to their needs evinces the importance social interaction has in-world, which according to Astrid Ensslin (2011) is undoubtedly among avatars' basic needs.

It was argued that social life in *Second Life* is being organized around four 'traditional' forms of group formation: friends, family, communities, and interest groups. And it was considered that one of the essential elements for the quality of the different social experiences is the modality of communication available. This virtual world offers users a rich communication environment, where they may take advantage of the tools for verbal (oral and 'written') and nonverbal communication. The preferred mode of communication is the 'oral-written' form provided by the chat tool. This form of communicating usually is complemented with nonverbal cues, like self-presentation and gestures. It was acknowledged that gestures, despite not being always used, may have an important role for engaging avatars in richer social situations.

During the netnographic research two phenomena were witnessed regarding the relationship established between avatars and social interaction. On one hand avatars look forward participating in different types of social occasions, but on the other hand they also seek social isolation. The diversity of locations available, as well as the mode in which this

digital world is organized make it easy for users to always find a place suitable for their wills and interpersonal skills. The analysis of the social life of avatars revealed that interaction then is influenced by 'code', users' will, and territorial organization.

The scope of the second chapter was the analysis of the rituals of social interaction performed by users when they are in contact with each other. These rituals are characteristic of all forms of human communication, being present even in mediated contexts. The internet allows users to expand their social networks into and within cyberspace (Rainie and Wellman, 2012). Despite the 'dematerialized' nature of online interaction it was seen how this growing dimension of human life is also being shaped through and by affective engagement. I consider that affects remain primary dispositions for sharing 'states of mind' in cyberspace, influencing how users relate with each other, but also how they get involved with the setting and with the social roles considered adequate for different occasions. These roles emerge through interaction and are socially developed by avatars, but inevitable marked by users' first lives. In order to better understand how these roles are negotiated among the members of a shared environment it was suggested that one should think of them as social performances. In *Second Life* these performances are constituted around two main dimensions, the appropriation of the avatar as the users' in-world representative, and the creative involvement set with the platform. The residents of this virtual world are *produsing* their characters and their 'own' world, and they are also responsible for defining their social performances within the limits imposed by the 'code'.

With the purpose of recognizing the importance of these *prodused* performances the following step was to understand how they are contributing to the appearance of remediated social structures in-world. These emerging structures are resulting from the combination of 'code' rules, resources and the users' capability of exerting agency, and they are bringing together first and second lives. To realize how these structures are being developed, two particular types of structures were discussed – the economic and the legal.

The economic dimension of *Second Life* is being constituted as a mix of a sharing and a market economy. It was argued that the act of sharing has been crucial for the development of this virtual world. Residents share resources, and are often available to help each other. However, they are also taking advantage of the 'coded' economic potential of this world. Linden Lab encourages transactions between residents. Contrary to other virtual worlds'

owners, it does not limit the trading of commodities to the gamespace, and throughout the development of this platform it had made strategic decisions that influenced how it was appropriated by users. In 2006 the exchange platform LindeX was created improving the process of buying and selling Linden Dollars. In 2007 gambling was forbidden which contributed to a reconfiguration of the in-world economic system: commercial activities replaced gambling as the most profitable economic sector. And in 2009 Linden Lab acquired the most important e-commerce platform for *Second Life* goods – the former XStreet, and currently named *Second Life* Market. I consider that these three adjustments influenced the role performed by the micro-currency Linden Dollar: its part as in-world 'monetary unit' was reinforced and it became an important element for the organization of this virtual world as an 'imagined' community (Anderson, 1999 [1983].

It was also discussed that the articulation between sharing and market economies is contributing to the affirmation of a new type of commodity economy – the 'creationist capitalism' (Boellstorff, 2008). Residents' creativity is the driving force for this kind of capitalist system; they are the main producers and consumers/users of the available commodities and services. Creativity is encouraged by Linden Lab as one of the main ways to earn money, and it is undoubtedly influencing the 'structuration' of the in-world economic system and the emergence of *Second Life* as a virtual *moneyscape* that is blurring the frontiers between offline and online experiences. One of the consequences of the economic organization of the social life of avatars is the raising of questions regarding law and authorship.

The regulation of cyberspace has been a topic of discussion since the first years of commercial internet access. While several problems concerning internet law are already solved – for instance the criminalization of some fraudulent activities, others seem far from reaching a solution mainly due to questions of territorial jurisdiction. The social turn in internet development has contributed to the increasing complexity of these legal concerns. Virtual worlds are posing first life legal systems with some of the most intricate cases regarding virtual property and intellectual rights. The main question involving virtual worlds' regulation is that the ultimate authority figure is the owning company, and not as proposed by Lawrence Lessig (2006 [1999]) a combination of 'code' and first life laws. Regulation is shaped by the platforms' code and ToS or EULA, which most of the times

only acknowledge the users' right to be treated with respect by other users (usually defined as 'harassment policies').

Second Life due to its distinctive characteristics – recognition of the users' right to intellectual property, and the fact that it is a co-created virtual world, has been one the most pointed out platforms in legal cases concerning virtual property. In-world experience is being 'regulated' by Linden Lab and residents. Linden Lab owns the platform, but both are taking part in 'code' development. Residents are also responsible for the establishment of regulatory institutions that would make their second lives more comfortable, like the creation of the in-world notary. But when the discontent transcends the boundaries of the digital setting, according to the actual legislation, the only legally responsible entity for regulating the virtual environment is its owner – Linden Lab. Despite the different cases that have been presented to Court involving this virtual world, I consider that the daily life within it does not seem to be shaped by legal concerns. Since avatars' basic rights are guaranteed residents appear interested in living their second lives without questioning who really rules the setting where it is taking place.

The analysis of the relationship that is being set between *Second Life* and first life law intended to show that despite being part of a virtual dimension in users' lives it might be difficult to keep it in a sphere legally separated from the other activities for much longer. Despite not being at the same development stage as the in-world economic structure, the emergence of an 'embryonic' *legalscape* is also evident. This dimension that connects users' first and second lives through the experience of being part of the development of a virtual environment is contributing to the discussion about the necessity of further regulating cyberspace. If a specific regulatory system is organized to deal with questions raised in-world, it will need to articulate users' rights and duties with the particular circumstances that have shaped internet development. It will need to balance users' 'social legal expectations' (Lastowka, 2010) with the freedom, and possibility of evasion offered by these digital settings for online interaction. I would also like to suggest that this alternative system should conciliate regulation and control with the creative dimension emerging from these online environments. It should be appropriate for the dynamics of late modernity that are questioning the 'bureaucratic' organization and control of late capitalism.

CONCLUSION

The complex programming code that sustains the Matrix was challenged by Morpheus and his crew but Neo is the one who better controls it. He is 'the One', the only one capable of setting humanity free from the domination of technology. In order to achieve this goal his posthuman capabilities resulting from the symbiosis of body and technology are often challenged by the 'code'. The first episode of *The Matrix* trilogy ends with "the human dissidents'" first step towards victory – Neo acknowledges his own capacities over the programing code, and after being killed by Agent Smith and resurrected by Trinity, he confronts Agent Smith and is able to defeat one of the most powerful authority figures of the Matrix. The second and third episodes – *The Matrix Reloaded* (2003) and *The Matrix Revolutions* (2003), are also focused on the dissidents' quest. However, this becomes harder because the Matrix reacts to the defiance and attacks Zion, the last human enclave. Morpheus and his crew have to choose between setting the Matrix inhabitants free, or to preserve the freedom of Zion citizens. After intense battles where power is demonstrated through technological supremacy, the end does not exactly offer closure. The machines are not defeated, and Neo and his colleagues become aware of the impossibility of trying to overcome technology. The disobedience of human rebels was expected by the 'code', as well as the 'awakening' of the One. After confronting the Architect of the Matrix, Neo realizes that is not possible to destroy the virtual reality without destroying humanity. Facing such a dilemma the option is to negotiate what appears to be the best compromise – the Matrix should be rebooted and the 'code' adjusted: humans should be able to decide in which reality to live.

The Matrix trilogy is an example of how human beings are fascinated with technology as a way to liberate them from biological constraints. However, following cyberpunk influences these movies also represent the uncertainty that surrounds scientific and technological development due to its 'possible' capability to imprison and control human beings. The

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[240]*The Matrix* ending quote. Neo returns to the Matrix after defeating Agent Smith and promises to fight in order to set humanity free from the control of the machines. As a demonstration of his control over the 'code', after hanging up the phone he flies towards the Matrix's sky.

posthuman dimension is evoked during the three movies, there are disembodied brains that are plugged into the 'mediated' reality of the Matrix, bodies encapsulated and used as an energy source, and humans are mediated into the virtual reality through spinal implants. There is a cyborgization of the human body, it is transformed into the medium that allows humans to experience the alternative life 'coded' for them. Despite the fictional Sci-Fi inspired way of 'plugging' humans into the Matrix, those who were able to escape this reality can always return despite taking the risk of being caught and re-encapsulated. In order to access the Matrix humans need to plug their bodies into a phone line, which recalls the first ages of internet access until the development of broadband connections, similarity that contributes to the association of the Matrix reality with cyberspace.

As anticipated by several cyberpunk books, movies, and TV serials, within the Matrix there is also a hidden master who controls human life. This master's main power is to control the 'code'. He is responsible for writing the programming code that makes the Matrix a faithful replication of reality, where time is controlled, and the present will always be the year of 1999 – by the end of each 'year' the virtual world is rebooted and life continues as nothing had happened. Despite its dystopian representation of a world controlled by machines, "[t]he Matrix represents a cyberspace (worlds within worlds) where technology has brought us within a hair's breadth of making all our dreams come true" (Berry, 2003: 252). The overcoming of human constraints has long been the trigger for setting imagination free. The motto of technological transcendence has been pursued since the nineteenth century with the entrance into the 'industrialized' world. The Sci-Fi genre evolved with technological development, and most of the futuristic communication and information technologies presented by fictional narratives are now part of our daily lives.

Since the first years of the video games industry in the beginning of the 1970s until nowadays, digital games have been one of the most immersive means to 'plug in' humans to virtual reality. Spectators became 'interactive spectators' taking advantage of a remediated cultural product which tends to transport users to fantasy realms that may

premediate the technological human future (Grusin, 2006).[241] The constant development of online social platforms is encouraging users to network and socialize with each other. Despite the fact that all new media have the potential to provide various mediated experiences, virtual worlds may be perceived as one of the most complex forms to interact with people from over the world, as well as to experience cyberspace. In order to contribute to a better understanding of the role performed by virtual worlds within the scope of contemporary social media, the present research was centered in the analysis of a particular digital environment – *Second Life*.

Virtual worlds are often considered 'traditional' digital games. However due to the degree of participation allowed to players, these environments can be much more interactive and complex than offline games. Virtual worlds vary greatly. They are part of the class of massive multiplayer online games which have in common the feature of always being available, of having the capacity to simultaneously accommodate large number of players, and of being available within cyberspace. The general tone of each environment is most of the time defined by the owning company, which may also define (or not) the contextualizing narrative of their digital spaces. *Second Life* was chosen as study object not only because it offers the possibility of living a digital life through an avatar, but mainly because this virtual world was conceived as a platform for innovation, inviting all its players to take part in its on-going development.

The chosen virtual world results from the co-work of Linden Lab and the residents, and to understand its specificities as a new medium of interaction and communication I consider that it was important to fully comprehend its formal and informal structures. The choice of the research design, as well as of the research methodology, was also of major importance. The research design followed in the organization of the present research was based on Maxwell's proposal (2002) of an interactive model, adjustable throughout the research process. The multimodal netnographic research allowed different dimensions of information collected in-world to be combined. On the one hand the netnographic research based on participant observation, and informal interviews as data collection methods allowed it a more structured experience of this virtual settlement. On the other hand, the

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[241] Video games have a double role, as other fictional narratives they combine realism and imagination. On the one hand they are influenced by the time and circumstances within which they are developed. But on the other, they are also capable of influencing future gadgets and technological features.

auto-netnographic research permitted the collection of firsthand data enriching the understanding of the online setting. The auto-netnography is centered on individual experiences and does not require a structured and well delineated research plan. It is based on spontaneous experiences and the researchers' individual engagement with the study object. The data collected was subject to an inductive data analysis which resulted in the definition of the main categories to understand this virtual world as a new medium. Regardless of the option for an inductive approach, it was necessary to establish the main categories that would shape this research. These were directly related with the three essential axes to grasp this virtual environment in all its dimensions: geography, cultural identity and in-world interaction.

The choice of the research dimensions was made focusing on the particular characteristics of *Second Life* – it is a *prodused* world where Linden Lab takes advantage of the users will to actively engage with their second lives, but also needs to face users' demands and manage their expectations in the best way possible. The analysis of these dimensions revealed that the relationships players are setting with territory, their avatars and with each other result from the remediation and representation of social space within this virtual world. Through the identification of the cultural narratives that are being developed by users during their in-world experiences, it was possible to acnowledge the role performed by these narratives within the 'politics of imagination' that are marking postmodernity. The users of this virtual world are taking the opportunity to 'appropriate' it to renegotiate the sociocultural models that frame their understanding of space, of themselves, and of the others. The development of *Second Life* as an 'enhanced' version of reality demonstrates that human beings shape, and are shaped by technology.

The first part – 'The World', characterized *Second Life* as a digital world, and the starting point was to perceive if its geographical organization follows the 'rules' of first life geography. Through the discovery of this *brave new* (virtual) *world* it became clear that it is organized around the same three elements that define first life geographical locations – territory, population, and social structures. The main difference is that this virtual world is only accessible through a computer connected to the internet, having as a central element the software interface that allows one to reach this alternative social space. As seen in chapter I from the first part, and its subchapters, the interface is controlled by Linden Lab

and represents the means to access this alternative 'reality'. The distinctive characteristic of the territory is its co-creation by the owning company and its residents. Because of this particularity the inhabitants of this virtual world have slightly different characteristics from those inhabiting, for instance, a game world having a predefined narrative as the case of *World of Warcraft*. One of the outcomes of this possibility is *Second Life* players' preference for owning land. Besides this, the latest quantitative study aiming at characterizing in-world population (Bell, Castronova, and Wagner, 2009) verified that within this virtual world there is a tendency for more female avatars to exist than from other genders, the average first life age of players is higher than that is verified in the majority of massive multiplayer online games – 35, and female players tend to be more present within this virtual world than male ones.[242] The social structures of this digital setting may be classified as formal or informal. The formal are those structures that are 'coded' or 'ruled' by Linden Lab like Terms of Service and Community Standards. The informal, on the other hand, result from users' perspective of the virtual environment. As made clear by the development of other virtual worlds like *Ultima Online* and *The Sims Online*, players usually look forward to liberating the virtual space from the control of the owning company. They tend to appropriate the digital landscape and to organize it around the constitution of private and public spheres.

Due to its intrinsic characteristics – prevalence of *prodused* content, all the avatars being controlled by human beings in real time, recognition of intellectual property, characteristics of the Linden Dollar, and built-in building tools – *Second Life* offers residents the possibility of establishing a closer relationship with the gamespace, and the central element of this relationship is undoubtedly land. This relationship was analyzed in the second chapter, and respective subchapters. The exploration of the virtual world led to the conclusion that residents nurture the opportunity to participate in the development of *Second Life* at different levels; and from their engagement with land players are developing spatial cultural narratives within this digital world. *Second Life* is an example of the settlement of the cyberspace phenomenon, and it was verified that as proposed by Gordon (2008) virtual worlds are among the main contributors for the 'spatialization' of digital mediated communication. The 'conquering' of empty space is the central element of the

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[242] A tendency that has been verified in other social platforms, like in social networking sites.

prodused space narratives emerging within this virtual world. Through the observation of several in-world locations, their qualities, and how they are used by players, it was determined that most of the time the meaningless, empty digital space is being appropriated by developers, and also by visitors, and transformed into representational spaces, places, or non-places. These different categories are achieved accordingly to the individual and collective meanings attributed to the different locations.

Another characteristic of this *prodused* virtual world is the fluidity of its geography. The participatory dimension of *Second Life* is contributing to the 'non-fixation' of the in-world geography – a geography that is in permanent adjustment, where new locations are created almost every day, but where older ones are transformed by users into non-places, or even into missing destinations. This fluidity has proven to be crucial to in-world development once when residents are encouraged to visit and 'experiment' new locations, those responsible for managing the long existing ones need to assure visitors interest if they want to safeguard their popularity and traffic levels. Land then is important for users at different levels, it gives users access to the different dimensions of this virtual world and the *prodused* space narratives are one of the most important aspects of residents' second lives. *Second Life* is being developed as a world within a world – a geographically bounded virtual world that exists in an alternative dimension of internet users' social lives. Following Foulcault (1997) one can consider that this particular virtual world may be seen as a heterotopia – an alternative space that exists within a common place. Its main characteristics as a heterotopia are its ability to mirror 'reality', and residents' choice to transform it into a recognizable space for social interaction.

The settlement of this digital environment is not only resulting in territory organization; users are compelled to organize themselves in order to be successful in their second lives. And from the relationship set with territory an in-world class society is being organized around propriety, wealth, and power. The observation and firsthand experience of this platform made clear that this virtual society is being structured around three main classes of residents: the ruling class, citizens, and tourists. The ruling class is composed of the Lindens, avatars representing the authority figure – Linden Lab. Citizens are the in-world working class. These residents may perform the role of landowners or creators. They are seen as the unofficial power that rules this virtual setting, and are influential characters.

Despite the importance of citizens, they are not the most prominent in-world class. As noticed within other social platforms, like social networking sites, blogs, and photo and video sharing platforms, the number of content creators tends to be significantly lower than those using the *prodused* content. Within *Second Life* the class with more representatives are the tourists, who can be classified as frequent or curious. The curious are all the players that explore this virtual world in a more superficial way, meaning that they do not get so engaged with the in-world social activities. The frequent may be categorized in two different groups – the griefers and the *flâneurs*. The first live under their 'own' rules and tend to disrespect other players in some way. The second are important figures once they enrich the in-world social life.

The visible organization of the population inhabiting *Second Life* is a result of what Edward Castronova (2007) designates as 'continuous migration'. This migratory movement is characterized by the back and forth flows of users going on and offline. These flows, like the flows that characterize the late modernity, are not homogenous. The users of this kind of platform do not look for the same experiences, and do not have the same goals. This was evident from the analysis of the in-world geographic organization, and further explored in the examination of the process of cultural identity formation, and the constitution of social interaction norms in-world. The second part of the present research was focused on the questions of cultural identity, and the third one on the in-world's interaction order.

Cyberspace has been considered a relevant setting for identity research. In order to better understand the importance, and possibilities offered by online social platforms it is necessary to grasp how users perform their identities and present themselves within a dimension of human life that is characterized by anonymity, flexibility, and freedom (Rheingold, 1992, 1993; Taylor, 1999; Turkle, 1995). Due to these characteristics cyberspace is a privileged space for the remediation of identity narratives – individual and cultural ones. However, the complexity of these narratives is always conditioned by the online media chosen in the development of users' digital representatives. Virtual worlds were soon recognized as appropriate spaces for the development of 'multilayered' online identities (Turkle, 1995); and *Second Life* because of its 'openness' is considered an interesting setting for the study of online identities (Boellstorff, 2008; Harris, Bailenson,

Nielsen, and Yee, 2009; Johnson, 2010). The residents of this virtual world are not only allowed to contribute to its geographical development, they are also being invited to take a standard initial avatar and to transform it into their own representative.

The formation of an in-world cultural identity is resulting from the articulation of the communication and representation features made available by the interface, with the intrinsic mechanisms of identity formation and negotiation. The interface lets users extend their communication and interaction affordances into a dematerialized dimension of social life that has been developed within cyberspace. This extension allows users to experiment different forms of social interaction, and of content production and consumption/usage, which combined with the porosity of identities is resulting in the constitution of remediated 'nomadic' selves. The remediation of users' identities has the figure of the avatar as its primary element. The avatar represents the human user in the social interactions that take place within the digital environment. The presentation of the self that occurs in all these interactions is based on the avatars' appearance, body language, and modes of expression. Elements that are mainly controlled by users. The firsthand experience of *Second Life* showed that this virtual world allows users to combine the affordances of cyberspace with those typical of social interactions. Within it users are represented by totally customizable avatars that take part in different social interactions, assuming the role of performers and/or audience members. The social performance takes place in a front stage, but performers always have access to a backstage area where they may get out of 'role'. In an analysis of face-to-face interactions Goffman (1990 [1959]) proposes that these are shaped around self presentation rituals: by performing conventional social roles, social actors present themselves to others in an individual and in a collective form. Performers present not only their individual identities, but also their cultural ones. Despite being a mediated space for social interaction, it was verified that *Second Life* offers its users appropriate conditions for moments of social interaction, and that to easily attribute meaning to those moments users tend to structure them in a way that mirrors first life.

In order to develop their digital representatives and to be able to present themselves in different social occasions, users must totally engage with the digital setting. Virtual worlds are 'narrative landscapes' (Murray, 1999) where users may get immersed within alternative social settings, where they are able to be active agents, and transform the digital

experience. Following Ryan (2001) and Calleja (2007) immersion and incorporation processes, it was possible to understand how users engage with this virtual world, and to conclude that users reach immersion or incorporation according to the role they perform in-world. Within *Second Life* the different classes of the population have a different involvement with the digital setting: citizens achieve incorporation due to their involvement in the platform's development, while tourists experience different forms of immersion. Agency is a key component to engage with alternative realities, and as noticed by Murray (1999) until the appearance of computers providing digital working stations, and later of virtual worlds, this ability was restricted to first life dimension. The fictional worlds provided by literature, cinema, and video games, for instance, did not allow audiences to be active agents of those realities. The virtual worlds were the first 'narrative environments' (*ibid*.) to allow users to experience a mediated form of agency. From this ability to exert human agency within a digital social setting players are able to transform the digital landscape, as well as their own avatars, and their own stories. The capacity to get immersed, of being an agent, and to transform the experience lived in-world are essential to the virtual worlds affirmation as relevant spaces of mediated social interaction.

One of the most important processes for the engagement with the avatar is the embodiment of the digital self. This process was recognized as having two main stages, the first centered on avatars' customization and interaction with other users, and the second focused on the development of self-representational digital narratives. Avatars customization consists of defining the avatar appearance and 'public profile'. Appearance plays a vital role in face-to-face social interaction due to a phenomenon designated by Yee and Baleinson as the 'Proteus Effect' (2007). The 'Proteus Effect' is related to the fact that appearance influences users' behavior. The profile tool was identified as having a complementary function to the avatar's body in respect to self-presentation. The avatar's profile is organized in different sections, allowing residents to publicly present themselves to others and to share information about their first and second lives, their interests, and goals. Despite the potential of this tool, users do not invest much time in using it, and when they do the tendency is only to fill out information regarding their second lives.

As far as appearance is concerned the netnographic experience conducted allowed to realize that the majority of the avatars are tall, good looking, and shaped around western

beauty stereotypes. Due to the importance of the avatar for experimenting a second life, the possibility of fully customizing it is one of the most important elements for the process of embodiment-disembodiment-re-embodiment lived by users engaged with the virtual world. This process takes shape during the different stages of involvement with the digital environment and with the avatar. Embodiment is achieved when users are able to experience the digital existence through the eyes of an avatar; disembodiment when players get so immersed that they achieve the willing suspension of disbelief necessary to feel bodily connected to the digital setting; and re-embodiment when the fascination of living a digital life is controlled and users become able to fully enjoy the possibilities offered by the virtual world. During this process the elements that perform the most important roles are players' 'physical' bodies and avatars' bodies interconnected through the technological interface. This relationship is the core element of the transformation of the avatar into a 'discursive virtual self' (Kolko, 1999). The re-embodiment occurring within virtual worlds shows that players and avatars should not be considered two separate entities. As 'players-as-avatars-as-players' (Norgaard, 2010) users accomplish four kinds of expectations typical in mediated spaces for social interaction (Yee, Ellis, and Ducheneaut, 2009): expectation of human embodiment, expectation of matched affordances, expectation of congruence, and expectation of single avatar control.

The possibility of enacting stories is essential to the enrichment of the online experience so the second stage of the constitution of digital remediated selves is the development of self-representational narratives. Through the participant observation it was acknowledged that the main elements for the organization of in-world self-representational narratives are: the definition of the avatar's name, gender, and appearance, and the ability to manage the technological interface. These elements directly influence users' experiences and the way the digital landscape is perceived. The experiences lived while immersed in alternative realities may be so meaningful that by being residents of virtual worlds users experiment with different types of remediation. On the one hand, the setting they inhabit results from the remediation process characteristic to all new media. On the other, by offering highly interactive and recognizable scenarios for social interaction these platforms also contribute to the experience of the remediation of reality and of identity. Bolter and Grusin (2000) propose that the multidimensional experiences lived through, and within new media platforms are contributing to the emergence of remediated selves. One can add that the

development of the internet towards a more and more social, cooperative and *prodused* network is leading not only to the advent of different perspectives to perceive the self, but also to new perceptions of identity.

Identities constituted through and within cyberspace then are remediated identities, 'materialized' most of the time by the figure of the avatar. The avatar does not substitute the 'flesh and bone' body, but refashions it within the digital landscape. The process of identity remediation results in the emergence of hybrid selves which articulate users' actual and digital experiences, contributing to the acknowledgement of cyberspace as an extension of 'reality'. Virtual worlds are suitable spaces for identity remediation since they make users feel immersed within the fictional setting through the incorporation of technological artifacts. The relationship between human and machine is becoming more evident with the rise of ICTs. The continual processes of identity remediation which are shaping our posthuman era are contributing to the emergence of a new type of cyborg, the metaphoric one (Hayles, 1995). Within virtual worlds these cyborgs are constituted in the bridging of first and second life, through the negotiation of the experiences lived within these two complementary dimensions. These negotiations are shaped by social markers that are being appropriated and remixed within the virtual reality. The embodiment of social markers such as age, race and gender within *Second Life* is essential for the organization of social interaction. Despite the freedom given to players to be whoever they want to be, the platform's 'code' is influencing how these markers tend to be represented in-world. The observation of life in-world revealed that as 'metaphoric cyborgs' users are experiencing the opportunity to be free of age constraints and almost free of race constrictions. However, gender representation still is highly influenced by 'traditional' gender stereotypes.

The remediation of users' identities along with the appropriation of the virtual environment is transforming *Second Life* into a space appropriate for the development of a shared cultural identity. The in-world cultural identity is being constituted around mediated intercultural contacts and may be understood as an example of a 'hybrid culture' (Canclini, 1990). The formation of this shared identity results from the organization of residents in virtual communities and interest groups, but represents above all the commitment of users to the virtual world, and to each other. The in-world cultural identity is being developed

through collaborative and individual practices which are remixing online and offline experiences.

The third, and last part analyzed how social interaction is organized within this mediated social setting. One of the first steps was to reflect upon new media's impact in users' social lives. Following Bakardjieva's proposal (2005) that each new medium should be analyzed taking into account its distinct characteristics, virtual worlds were seen as being among the most immersive social platforms. Despite confirming this fact, the study evidenced that these platforms perform a hybrid role as promoters of social interaction. On the one hand, they encourage the formation of different social networks; but, on the other, users of these spaces tend not only to seek rich social experiences, they also take advantage of the possibility of being 'alone together' (Ducheneaut, Yee, Nickell, and Moore, 2006).

The massive multiplayer online games despite allowing social isolation have undoubtedly as a central element the potential interaction between their users, whom are physically distant but virtually close. Interaction is one of the most important elements for the existence of co-created virtual worlds. Due to the centrality of interaction within these digital landscapes, Steinkuehler and Williams (2006) suggest that in order to fully understand the social importance of these online environments, one should see them as 'third places' for informal socialization (Oldenburg, 1999). Virtual worlds are spaces for evasion where users find the suitable conditions to experience rich social experiences. These experiences are highly mediated, and take place in multimodal and tridimensional environments. The social life of avatars then is influenced by the platform's code and by users' actions. To become relevant settings for social interaction virtual worlds must have specific characteristics, like being multi-user, synchronous, navigable, embodied, and spatial. Notwithstanding, to be able to encourage the formation of dynamic communities these platforms should also allow users to contribute to the evolution of the digital environment. The nature of the users' contribution vary according to the terms of use of each platform, but since the first MUDs it became evident that users want to be able to somehow contribute to the life in-world. In a virtual world like *Second Life* residents may contribute by being creators of objects and scripts, or by taking advantage of what others create while contributing to the improvement of the in-world social life.

Social interaction within this virtual world, like it was noticed in the analysis of the relationships established with the digital space and with the avatar, follows the main tendencies verified in first life contexts. Two of the most relevant principles that shape face-to-face interaction are the awareness of the presence of the other, and the performance of recognizable social roles. These principles are also essential to in-world's social life. The first is regulated by the 'code' which stipulates that is not possible to be near an avatar and not to be noticed; and the second by residents' shared social practices. Socialization is not a mandatory activity for those inhabiting *Second Life*; nevertheless, it has been crucial for the coming of age of this virtual settlement. The significance of this element is related to the importance of socialization for the humans controlling the avatars. According to Maslow's (1943) theory of basic human needs, belongingness is the third basic need humans have to fulfill. When applying Maslow's model to the reality of *Second Life* Ensslin (2011) concluded that the avatar as the digital representative of the human user also has basic needs, and that belonging is also among them.

The importance of social interaction among the avatars inhabiting *Second Life* becomes noticeable if one recognizes the existence of four main dimensions of avatars social lives: friends, family (or other closer relationships), communities, and interest groups. All these relationships are possible in-world but depend on users will to be part of different networks of belonging. The organization of social life around recognizable categories once again shows that the 'traditional' ways of organizing social experiences, as well as of understanding the world, are the most influential elements of in-world interaction. The remix of cyberspace affordances with the basilar structures of first life reveals the users' need to attribute meaning to the spaces they 'inhabit'. The modality of communication available in-world is of major importance for the establishment of social networks. From the perspective of the communication tools made available to residents, *Second Life* is also a complex environment offering users the opportunity to engage in verbal and non-verbal ways of communicating with each other. Verbal communication assumes a dual role occurring in oral and written codes. Voice communication is a relatively recent feature, and it is not available in all locations. But, even in zones where it is permitted to speak with other avatars this option is not very often explored, users seem to prefer

communicating 'orally' using written code. Within these social contexts written communication assume a role that in first life is performed by orality.[243]

In-world non-verbal communication is based on self-presentation and non-verbal social cues (or gestures). While verbal communication in virtual worlds follows the general tendencies verified in the majority of online contexts – use of abbreviations, acronyms, *emoticons*, and traces of oral communication; non-verbal communication is a 'novelty' in online communication, and is considered only to be possible within shared environments where users are represented by avatars, and can acknowledge the presence of each other. Non-verbal digital communication cannot be as rich and complex as this type of communication is in face-to-face interactions. However, despite of the limitations imposed by the interface, within *Second Life* this form of communication is of major importance for social interaction. According to previous research and to the netnographic experience organized for this study, aspects like interpersonal distance, eye gaze, and the use of gestures are essential to the communicational flow and to the significance of interactions. Nevertheless, conciliating verbal and non-verbal aspects of communication while immersed in a mediated environment is not a simple task and requires training. Due to the diversity of elements of non-verbal communication one can make use of, sometimes to add a layer of non-verbal meaning to the message that is being transmitted, the fluidity of communication is sacrificed. However, even in the cases of users who do not completely control the interface, non-verbal cues seem to be considered more relevant than the fluidity of communication. From the analysis of the social life of avatars within *Second Life*, it was concluded that there are three main factors influencing in-world interaction. The first is the platform's code, the second, users' will, and the third geographical organization. This last element is important because there are locations which contribute to the diversity of social relationships due to their predominantly social character. But there are also locations appropriate for users looking for privacy.

The organization of social life within this virtual environment is following the tendencies already verified in other cyberspace contexts, and it is possible to notice the emergence of new interaction patterns. One of the conditions that contribute to the enhancement of social

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[243] In the first multi-user online spaces written communication was the only mode of communication available. Users have seemed to become familiar with this form of communication since then, and now use it as a primary mode of communication.

life even in digital 'live-action' tridimensional stages is the inevitable 'presence' of affectivity. Affective engagement is essential for embodiment in whichever dimension of human life – physical or digital. Affects are essential to bond with others, framing social interactions and influencing how each participant perceives his role within the interaction order. Because they influence the perception of the social experience, affects are also central for the definition and enactment of social roles and for the constitution of interaction rituals. These rituals result from the articulation between social conventions and social performances. New media emerging social spaces have an evident performative dimension once they allow social performances to occur under similar conditions that they do in first life. Virtual worlds enhance this capability by mixing the performative dimension proper from games and play (Huizinga, 1971 [1938]; Caillois, 2001 [1961]) with the possibility of embodying a totally customizable avatar.

Social performances negotiated around shared conventions then are the pillars of the development of *Second Life* as an alternative meaningful social space, and are the drivers for the delineation of a 'structured remediated society'. Following Anthony Giddens' 'structuration theory' (1986 [1984]), it was possible to realize that the social dynamics within this virtual world are evolving around the 'duality of structure' which predicts that social structures shape and are shaped through and by social reality. In-world social structures are being developed through the combination of rules (or 'code'), resources, and agency, and among the most prominent structures are economy and law, just as happens in first life. The economic dimension of *Second Life* is being developed through the blend of a sharing and a market economy. While the act of sharing has been crucial for the evolution of this digital setting, it is on the capitalist dimension of this world that its economic potential resides. The capitalist system based on residents' creativity articulated with the 'code' programmed by Linden Lab is resulting in a 'structured' economic system based on a virtual monetary unit and residents' skills. As far as the legal dimension of this virtual world is concerned, it has been more challenging to articulate first and second lives law, because it has a less 'plastic' nature than money and other economic drivers. The main difficulty for the conciliation of digital and non-digital legal matters is inherent to jurisdiction questions. Virtual worlds are regulated by the owning companies since they are seen as mere software. But with the appearance of platforms relying on users' creativity and will of participation, it is becoming more and more urgent to solve the question of

regulation. *Second Life* is an exemplary case of this need due to its characteristics – recognition of users' right to virtual property and because it is a co-created virtual world where users are proprietors of 99% of the available content (Ondrejka, 2006). In this case the distinction between what is a 'real' legal matter and what is not has sometimes been difficult to distinguish. This is the virtual world that has originated more legal processes. Despite the need to solve the legal position of virtual worlds in a way that does not conceive them as only being a software product, this question does not seem to disturb life in-world. In a general way avatars seem more interested in the protection of their basic rights, than in questioning who should truly govern the virtual world.

The two main social structures that are being remediated by *Second Life* users make clear that social interaction in-world is very important, and that the users of immersive social media seem to use these platforms to bridge first and second lives affordances, duties and rights. With the internet's development online and offline experiences are becoming more and more complementary, instead of apart from each other. *Second Life* is a product available within the contemporary 'mediascape' (Appadurai, 1996), but by being *prodused* its importance as a 'scape' for social interaction is not confined to its 'mediated' dimension. The 'structuration' of this virtual world is leading to the emergence of a digital *moneyscape* and *legalscape* that are connecting users' first life and second life in a way not possible before. The digital *moneyscape* is being constituted around the growing importance of money as an economic and cultural element, and the *legalscape* is being shaped through the entanglement of law and culture by the users of this virtual world. While the economic dimension of virtual worlds had already achieved a maturation level that allows it to be almost freely remixed with its first life counterpart; the legal is still facing some challenges. But, despite being embryonic, the *legalscape* that relates online and offline experiences lived by the users of this virtual world is contributing to the discussion around the regulation system appropriate for cyberspace.

The study conducted on *Second Life* intended to understand the importance of virtual worlds for contemporary societies. New media are being rapidly appropriated by internet users from all over the world and their interactive nature appeals to the users' will to be more than content consumers. For the first time audiences may get actively engaged with the different forms of mediation available, and they are indeed taking advantage of this

possibility. Within the panorama of web 2.0 virtual worlds are among the most complex platforms available, offering users the possibility to create graphic digital representatives which would allow them to live a 'second life'. One of the presuppositions that framed the planning of this research was the idea that if great expectations have been held out for the internet as a mean to transcend the constraints of 'reality' since its first years, contemporary users should be taking advantage of the possibilities offered by technological development and reinventing themselves within the different virtual environments available.

The internet plays a crucial role as the medium where virtual worlds are developed and become somehow 'digitally palpable'. This new medium made virtual reality more accessible, and simulation platforms are no longer exclusively linked to complex technological artifacts like gloves and head-mounted displays. Nowadays, almost all the internet users have access to computers with broadband connections to the internet, and are able to access a wide variety of virtual worlds simulating tridimensional environments. The users inhabiting these social landscapes are now able to interact and communicate with users from all over the world in real time. The development of the internet, and of the desktop simulation technologies are contributing to a greater immersion and embodiment of technological artifacts, bridging the 'real' (or the 'actual') with the digital. Despite occurring within a 'dematerialized' dimension of users lives, online interaction is meaningful and should be investigated in all its dimensions. The present research has focused on a particular virtual world that not only allows its users to live virtually, but also to be creators of the space they digitally inhabit. *Second Life*'s development is paradigmatic of the users' will to be *produsers*, and has been considered a rich study object by researchers from different scientific fields. This study combined theoretical approaches from different areas – new media, game and culture studies, and sociology, in order to contribute to a better understanding of the interaction modes emerging from co-created immersive environments. *Second Life* was explored as a new media platform where an alternative social space has been *prodused*. It was discussed how users are appropriating, and being 'appropriated' by this digital environment, and which cultural narratives are shaping their in-world experiences.

The netnographic research conducted in-world for the last three years allowed me a firsthand perspective of this virtual world. During this time I was able to become a citizen of this alternative world, and to experience the digital life through my own avatar – Melissa Finley. The combination of the data collected during the different research stages – participant observation, interviews, and auto-netnography, led to the conclusion that there are three main cultural narratives emerging from the in-world experience lived by the residents of this virtual world. The first intrinsically related with geographical organization of human life – spatial narratives; the second, with the need to make sense of oneself – narratives of identity; and the third, with the fact that humans are social beings in essence – social interaction narratives. The development of these narratives was somehow expected since they integrate almost all the essential elements humans make use of to locate themselves within the complex surrounding environment. However, the way these narratives are emerging shows that, contrary to what was expected by the first internet scholars, the development of immersive online environments is not contributing to the liberation from biological and social constraints. Despite the possibility to create unique digital representatives and to co-create a digital world for them, users of virtual worlds are enriching their digital lives with social and cultural models from their first lives. Instead of being a space for overcoming the limitations of being human, virtual worlds are being inscribed with remixed versions of 'traditional' cultural narratives.

The cultural narratives that are being developed by *Second Life* users result from the articulation of processes of representation and remediation of the world within this digital landscape. Due to the evident negotiation that is taking place between users' first life and second life, one may consider that *Second Life* is being *prodused* as a remediated representation of users' 'construction of reality'. The result evinces that "[s]ubjects may produce particular texts, but they are operating within the limits of the *episteme*, the *discursive formation*, the *regime of truth* of a particular period and culture" (Hall, 2003b [1997]: 55). As a postmodern product *Second Life* does not represent a cut with the past, or with previous experiences, and it should not be understood in light of binary oppositions such as illusion/truth, appearance/reality, or culture/nature. The development of this *prodused* virtual world is taking shape within the flows of the 'continuous migration' towards cyberspace. It is resulting from the enrichment of human experience with the possibilities made available by new media technologies.

The growing potential of the internet and of the World Wide Web as communication technologies, and the development of the software and hardware industries is transforming online spaces for social interaction into complex and dynamic environments. Contemporary virtual worlds result from the combination of what Jameson (2005) defines as the "historic originalities of late capitalism", the cybernetic technology and the globalizing dynamics. Within these spaces users are given the opportunity to create their digital representatives and their shared world, and to socialize with users from different geographical locations. The *produsage* of *Second Life* is an example of the importance of social media platforms for internet users. Linden Lab's decision to allow owning land and creating all type of objects in-world is resulting in users' appropriation of this virtual world. Within this platform users assume the role of *produsers* contributing in several ways to its development. The analysis of this digital environment led also to the conclusion that when having the opportunity to create the digital settings they inhabit, users tend to prefer recognizable social spaces. Even when marked with traces of fantasy, the locations available within *Second Life* are designed under the same architectonical concerns one identifies in the creation of the social spaces of first life. The co-creation of this virtual world is leading to the development of a remediated version of first life. Following the artistic strategies of postmodernity (Gil and Ganito, 2010; Jarmusch, 2004), the residents of this virtual world are not *produsing* an original digital world, but are sampling, morphing, and cloning the sociocultural narratives that frame contemporary life.

Technology adoption and the emergence of the *produsers* are contributing to a change in the 'politics of imagination' of late modernity. The user is assuming a more and more active role, becoming able to interact with different types of content available online, to be author of great part of that content, and to communicate and interact synchronously with people from all over the world. Instead of only engaging with content produced by organizations and a few 'privileged' internet users, the *produsers* are adopting new media, and their collaboration, communication, and content creation tools, and experimenting with a 'second life' from their own perspective. For the first time users can get immersed within an alternative reality and be able to exert agency. All the interested may become actors within the digital landscape. The role performed by *produsers* is so important for the dynamics of the networks emerging within and through cyberspace (networks of people and of information) that in 2006 *Time Magazine* considered 'You' as the person of the

year[244] – 'You' represent all the people who are participating in collaborative content creation environments; and *Advertising Age* named the 'Consumer' as the best 'Advertising Agency of the Year'.[245] Due to the growing importance of new communication technologies for large amounts of people all over the globe, it is important to recognize the different affordances offered by each of them, and to understand how *produsers* are taking advantage of these affordances.

Virtual worlds made available by massive multiplayer online games are among the most interactive and immersive platforms of the web 2.0. The growth of the number of internet users inhabiting these environments makes them important study objects for different disciplines. From the perspective of media and communication studies these platforms are appropriate settings for the research of how internet users are appropriating the social spaces that are being made available to them and establishing social networks with the other users. As "communication is a symbolic process whereby reality is produced, maintained, repaired, and transformed" (Carey, 1992 [1989]: 23), these platforms are scenarios prone to investigations focused on the sociocultural importance of new media. The present research aims at contributing to the area of communication and media studies, particularly to the research fields of new media, games studies, and culture studies. It also intends to contribute to the affirmation of new media studies within the Portuguese academic panorama, as well as to reinforce the importance of researching virtual worlds. The study conducted on *Second Life* analyzed it as a frame of social interaction. The intention was to comprehend this 'fragmentary' virtual world as a whole. The majority of the national and international studies conducted so far paid attention to particular communities or to specific phenomena occurring in-world. Aligning with the work developed by Tom Boellstorff (2008) and Phylis Johnson (2010) the goal was to understand the remediated society that is being co-created in-world. Within the scope of understanding communication as culture, the present research contributes with an analysis of the social life of avatars from a sociocultural point of view. The engagement of users with the gamespace, and the way they are taking advantage of being *produsers* is

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[244] 'You – Yes, You – Are *Time*'s Person of the Year', by Lev Grossman, available at http://www.time.com/time/magazine/article/0,9171,1570810,00.html (last visited June, 2012).
[245] 'Ad Age, Agency of the Year: The Consumer – John Doe Edges Out Jeff Goodby', by Matthew Creamer, available at http://adage.com/article/news/ad-age-agency-year-consumer/114132/ (last visited June, 2012).

representative of the fact that "*Second Life*'s appeal to contemporary generations rests on a threefold set of assumptions […]: imitation, imagination and compensation for life's dissonances" (Gil, 2008: 55).

The recognition of *Second Life* as a postmodern creative tool where users reinvent themselves by creating a remediated representation of 'reality' may be important for future research. Due to the fact of being *prodused*, this virtual world embodies what Lev Manovich (2001) considers the most important characteristic of new media: it mediates culture 'encoded' in a digital form. As such, this platform should be considered a fertile ground for studying the importance of technological development for different sectors of first life. Future research may focus on the importance of virtual worlds for intercultural communication, and analyze their relevance as platforms for e-learning, e-commerce, and e-creativity. It is necessary to deeply understand the impact of these tools, and learn how to take advantage of their potentialities, since the technological development is leading to a closer relationship between technology and society, and consequently to the blurring of the boundaries between 'reality' and 'virtuality':

> What is real?
>
> How do you define real?
>
> If you're talking about your senses, that you feel, taste, smell, or see, then all you are talking about are electrical signals interpreted by your brain.[246] (*The Matrix*, 1999)

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[246] Morpheus explaining Neo that the difference between simulation and reality is not as clear as he might think.

GLOSSARY

Alt – Alternative avatar; designation applied to refer to residents who have alternative accounts to log into *Second Life*.

Animation – Series of movements saved in the inventory, or inscribed in objects.

Avatar – Users' digital representative within the virtual world.

Avie – Short-form of avatar.

Beta – Common word from the software terminology. It refers to the stage of a technology product development just before its commercial release. During this stage several tests are done, most of which with volunteer users.

Camping – Refers to the activity of not moving in-world, in order to gain something from it. In *Second Life* camping is used to designate the specific activity of staying in a certain place for a given period of time in return for some type of payment. In games like first-person shooters, camping occurs whenever a player remains in a certain location to gain advantage over enemies.

Chat – Text-based tool that is used in *Second Life* to publicly communicate with the avatars in the vicinity.

Emoticon – Typographic symbol used to represent emotion during a text-based conversation, like ☺ for representing a smiley face.

First life – Offline life of the virtual world users.

Freebie – Any object sold by L$0.

Furry – Anthropomorphic cartoon animal avatar. Furries are among the most prominent subcultures in-world.

Gesture – Short animation, or sound effects, resulting from the pressing of a given combination of keys or the use of a short cut, used to manifest an immediate reaction, such as applauding or laughing.

Gorean – Concerning the universe of the series of *Gor* novels written by John Norman. The Gorean community of *Second Life* is among the most active communities in-world.

Green dot effect – Refers to the tendency that residents have to prefer locations where a high amount of visitors already is. These locations are easily found since the avatars are represented as green dots in the *Second Life* world map.

Grid – It is the platform and technology that sustains the virtual world of *Second Life*.

Griefer – Player whose main goal is to disrupt the other players' in-world experiences.

Instant messaging – Text-based tool that allows the users of this virtual world to communicate privately.

Inventory – Avatar's storage folder containing, for instance, all the objects he owns, the landmarks he keeps, and his animations.

In-world – Everything that occurs within a virtual world.

Lag – Network latency that usually results in the slowing down of the communication process between client and server.

Linden Dollar (L$) – The official currency of *Second Life*.

Linden Scripting Language – A *Second* Life-based programming code made available to all users.

LindeX – The Linden Lab's exchange platform.

MMOG – Massive multiplayer online games. These may be from diverse types; two of the most popular are the role-playing (MMORPG), like *The World of Warcraft*, and the social ones, like *Second Life*.

MUD – First text-based virtual worlds. MUD stands for multi-user domain, multi-user dungeon, and multi-user dimension.

Newbie – Newcomer to the virtual world. Users are considered newbies during the first 90 days spent in-world.

Poseball – Specific animation that after activated make the avatar behave in a certain way. Poseballs may also be incorporated into objects.

Prim – See Primitive.

Primitive – Basic building blocks constituting all the objects available in-world. These basic shapes may be changed and customized in an infinite number of ways. Objects are made of two or more prims combined.

Profile – All avatars have a profile where they can share basic information about themselves. The profile is public, and all residents are able to see each others profile.

Region – see Simulator.

Resident – User that inhabits *Second Life* for more than 90 days.

Rez –To make an object appear on the screen (to rez, or rezzed). A great majority of the content saved in the inventory is located in an external server and must be downloaded in order to become visible.

Second life – Phrase used to refer to the digital experiences lived through an avatar.

Second Life Marketplace – It is the online retail platform that allows the residents of this virtual world to sell all type of products.

Second Life viewer – The program users need to install in order to enter this virtual world.

Sim – See Simulator.

Simulator – All *Second Life*'s regions are simulators, they are contained in different servers in the actual world.

Skybox – Designation used to refer to a private floating house. Avatars can build these houses above the parcels of land they own or rent. The access to skyboxes tends to be restricted.

Teleportation – Most used system of transportation in-world. It consists in instantaneously moving into another location within the virtual world.

The Lindens – Expression applied to refer to the Linden Lab staff.

ToS – Terms of Service defined by the owning company, in order to regulate the use of its platform.

Traffic – A measure of the amount of avatars that have spent more than five minutes in a given parcel of land.

BIBLIOGRAPHY

Aarseth, E. (1997). *Cybertext: Perspectives on Ergodic Literature*. Baltimore: Johns Hopkins University Press.

Aarseth, E. (2007). 'Allegories of Space: The Question of Spatiality in Computer Games'. In F. von Borries, S.P. Walz and M. Böttger (eds.). *Space, Time, Play*. Basel, Boston and Berlin: Birkhäuser, 44-47.

Anderson, B. (1999), *Imagined Communities*. London: Verso [1983].

Anderson, P. (2007). 'What is Web 2.0? Ideas, Technologies and Implications for Education'**.** *JISC Technology and Standards Watch*, February 2007. Retrieved, July 2009, from www.jisc.ac.uk/media/documents/techwatch/tsw0701b.pdf .

Angerer, M.-L. (1997). 'The Body as Interface'. Keynote lecture presented at *Intersubjectivity: Media Metaphors, Play & Provocation*, 6th International Vilém Flusser Symposium, Budapest, Hungary. Retrieved, January 2012, from www.c3.hu/events/97/flusser/participantstext/angerer.html.

Antonijevic, S. (2008) 'From Text to Gesture Online: A Microethnographic Analysis of Nonverbal Communication in the *Second Life* Virtual Environment'. *Information, Communication & Society* 11: 2, 221-238.

Appadurai, A. (1996). *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis: University of Minnesota Press.

Appiah, K. (2005). *The Ethics of Identity*. Princeton: Princeton University Press.

Argyle, K. and R. Shields (1996). 'Is there a Body on the Net?'. In R. Shields (ed.). *Cultures of Internet: Virtual Spaces, Real Histories, Living Bodies*. London: Sage, 58-69.

Argyle, M. (1988). *Bodily Communication*. London and New York: Routledge.

Au, J.W. (2008). *The Making of* Second Life*: Notes from the New World*. New York: HarperCollins.

Auden, W.H. (1976). 'Afterword'. In G. MacDonald. *The Golden Key*. New York: Farrar, Straus and Giroux [1967], 81-86.

Augé, M. (1997). *Non-places. Introduction to an Anthropology of Supermodernity*. London and New York: Verso [1992].

Austin, J.L. (2004). 'How to Do Things with Words, lecture II'. In H. Bial (ed.). *The Performance Studies Reader*. London and New York: Routledge, 147-153 [1955].

Bailenson, J.N. and A.C. Beall (2006). 'Transformed Social Interaction: Exploring the Digital Plasticity of Avatars'. In R. Schroeder and A.-S. Axelsson (eds.). *Avatars at Work and Play: Collaboration and Interaction in Shared Virtual Environments*. Dordrecht: Springer-Verlag, 1-16.

Bailenson, J.N., A.C. Beall, J.M. Loomis, J. Blascovich, and M. Turk (2004). 'Transformed Social Interaction: Decoupling Representation from Behavior and Form in Collaborative Virtual Environments'. *Presence: Teleoperators and Virtual Environments*, 13: 4, 428-441.

Bailenson, J.N., J. Blascovich, A.C. Beall, and J.M. Loomis (2003). 'Interpersonal Distance in Immersive Virtual Environments'. *Personality and Social Psychology Bulletin*, 29: 7, 1-15.

Bainbridge, W.S. (2007). 'The Scientific Research Potential of Virtual Worlds'. *Science*, 317: 5837, 472-476.

Bainbridge, W.S. (2010a). 'Virtual Worlds as Cultural Models'. *ACM Transactions on Intelligent Systems and Technology*, 1: 1, Article 3, 1-21.

Bainbridge, W.S. (2010b). *The Warcraft Civilization: Social Science in a Virtual World*. Cambridge, Ma.: MIT Press.

Bainbridge, W.S. (ed.) (2009). *Online Worlds: Convergence of the Real and the Virtual*. London: Springer Verlag.

Bakardjieva, M. (2003). 'Virtual Togetherness: An Everyday-Life Perspective'. *Media, Culture & Society*, 25: 3, 291-313.

Bakardjieva, M. (2005). *Internet Society: The Internet in Everyday Life*. London, Thousand Oaks, New Delhi: Sage.

Balkin, J.M. (2006). 'Law and Liberty in Virtual Worlds'. In J.M. Balkin and B.S. Noveck (eds.). *The State of Play: Law, Games, and Virtual Worlds*. New York and London: New York University Press, 86-117.

Balsamo, A. (1996). *Technologies of the Gendered Body: Reading Cyborg Women*. Durham and London: Duke University Press.

Balsamo, A. (2000). 'The Virtual Body in Cyberspace'. In D. Bell and B.M. Kennedy (eds.). *The Cybercultures Reader*. London and New York: Routledge, 489-503.

Bandura, A. (2001). 'Social Cognitive Theory: An Agentic Perspective'. *Annual Review of Psychology*, 52, 1-26.

Barbrook, R. and A. Cameron (2001). 'Californian Ideology'. In P. Ludlow (ed.). *Crypto Anarchy, Cyberstates, and Pirate Utopias*. Cambridge, Ma.: MIT Press, 363-387.

Bardzell, S. and W. Odom (2008). 'The Experience of Embodied Space in Virtual Worlds'. *Space and Culture*, 11: 3, 239-259.

Barlow, J.P. (2001). 'A Declaration of the Independence of Cyberspace'. In P. Ludlow (ed.). *Crypto Anarchy, Cyberstates, and Pirate Utopias*. Cambridge, Ma.: MIT Press, 27-30.

Baron, N.S. (2008). *Always On: Language in an Online and Mobile World*. Oxford: Oxford University Press.

Bartle, R. (2003). 'Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs'. In J. Mulligan and B. Patrovsky (eds.). *Developing Online Games: An Insider's Guide*. Indianapolis: New Riders Publishing, 397-436.

Bartle, R. (2004). *Designing Virtual Worlds*. Indianapolis: New Riders Publishing.

Bartle, R. (2007). 'Making places'. In F. von Borries, S.P. Walz and M. Böttger (eds.). *Space, Time, Play*. Basel, Boston and Berlin: Birkhäuser, 397-436.

Bauman, Z. (2000). *Liquid Modernity*. Cambridge: Polity Press.

Bauman, Z. (2003). *Community: Seeking Safety in an Insecure World*. Cambridge: Polity Press [2001].

Bauman, Z. (2004). *Identity: Conversations with Benedetto Vecchi*. Cambridge: Polity Press.

Bauman, Z. (2005). *Liquid Life*. Cambridge: Polity Press.

Baumeister, R.F. (1986). *Identity: Cultural Change and the Struggle for Self*. Oxford: Oxford University Press.

Baym, N.K. (1995). 'The Emergence of Community in Computer-Mediated Communication'. In S. Jones (ed.). *CyberSociety*. London, Thousand Oaks, New Delhi: Sage, 138-163.

Baym, N.K. (2010). *Personal Connections in the Digital Age*. Cambridge: Polity Press.

Becker, B. and G. Mark (2002). 'Social Conventions in Computer-Mediated Communication: A Comparison of Three Online Shared Virtual Environments'. In R. Schroeder (ed.). *The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments*. London: Springer Verlag, 19-39.

Bell, D. (2001). 'Identities in Cyberculture'. In D. Bell (ed.). *An Introduction to Cybercultures*. London: Routledge, 113-36.

Bell, M., E. Castronova, and G.G. Wagner (2008). 'Virtual Assisted Self Interviewing (VASI): An Expansion of Survey Data Collection Methods to the Virtual Worlds by Means of VDCI'. *RatSWD*, Research Note No. 39. Retrieved, October 2011, from http://ssrn.com/abstract=1188562.

Bell, M., E. Castronova, and G.G. Wagner (2009). 'Surveying the Virtual World – A Large Scale Survey in *Second Life* Using the Virtual Data Collection Interface (VDCI)'. *RatSWD*, Research Note No. 40. Retrieved from http://ssrn.com/abstract=1418562.

Bem, D. (1972). 'Self-Perception Theory'. In L. Berkowitz (ed.). *Advances in Experimental Social Psychology*. New York: Academic Press, vol. 6, 1-62.

Bendle, M.F. (2002). 'Teleportation, Cyborgs and the Posthuman Ideology'. *Social Semiotics*, 12: 1, 45-62.

Bengry-Howell, A., R. Wiles, M. Nind, and G. Crow (2011). 'A Review of the Academic Impact of Three Methodological Innovations: Netnography, Child-Led Research and Creative Research Methods'. Southampton: ESRC National Centre for Research Methods. Retrieved, May 2012, from http://eprints.soton.ac.uk/194895/.

Berman, J. and A. Bruckman (2001). '*The Turing Game*: Exploring Identity in an Online Environment'. *Convergence*, 7: 3, 83-102.

Berry, R. (2003). 'Dreaming Real'. In K. Haber (ed.). *Exploring the Matrix: New Writings on* The Matrix *and the Cyber Present*. London: ibooks (Simon & Schuster), 250-265.

Biocca, F. (1997). 'The Cyborg's Dilemma: Progressive Embodiment in Virtual Environments'. *Journal of Computer-Mediated Communication*, 3: 2. Retrieved, October 2010, from www.ascusc.org/jcmc/vol3/issue2/biocca2.html.

Biocca, F., C. Harms, and J.K. Burgoon (2003). 'Toward a More Robust Theory and Measure of Social Presence: Review and Suggested Criteria'. *Presence: Teleoperators and Virtual Environments*, 12: 5, 456-480.

Blascovich, J. (2002). 'Social Influence within Immersive Virtual Environments'. In R. Schroeder (ed.). *The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments*. London: Springer Verlag, 127-145.

Boa-Ventura, A. (2011). 'Virtual Worlds and Behavioral Change: Overcoming Time/ Space Constraints and Exploring Anonymity to Overcome Social Stigma in the Case of Substance Abuse'. In N. Zagalo, L. Morgado, and A. Boa-Ventura (eds.). *Virtual Worlds and Metaverse Platforms: New Communication and Identity Paradigms*. Hershey and London: IGI Global, 271-286.

Boellstorff, T. (2008). *Coming of Age in Second Life*. Princeton: Princeton University Press.

Bolter, J.D. and R. Grusin (2000). *Remediation: Understanding New Media*. Cambridge, Ma.: MIT Press.

Bosteels, B. (2003). 'Nonplaces: An Anecdoted Topography of Contemporary French Theory'. *Diacritics*, 33: 3/4, 117-139.

Boudreault, L. and J. Moser (2007). 'Neutralizing Identity: Exploring Language and Gender in a Virtual World'. *Computer Writing and Research Lab – White Paper Series*. Retrieved, April 2012, from www.cwrl.utexas.edu/main/sites/default/files/080218-2.pdf.

Bowman, S.L. (2010). *The Functions of Role-Playing Games, How Participants Create Community, Solve Problems and Explore Identity*. Jefferson, North Carolina, and London: McFarland & Company.

Braidotti, R. (1994). *Nomadic Subjects: Embodiment and Sexual Difference in Contemporary Feminist Theory*. New York: Columbia University Press.

Bray, F. (2007). 'Gender and Technology'. *Annual Review of Anthropology*, 36: 1, 36-53.

Brookley, R.A. and K.L. Cannon (2009). 'Sex lives in *Second Life*'. In G. Dines, J.M. Humez (eds.). *Gender, Race, and Class in Media: A Critical Reader*. London, Thousand Oaks, New Delhi: Sage, 571-589.

Bruckman, A.S. (1996). 'Gender Swapping on the Internet'. In Peter Ludlow (ed.). *High Noon on the Electronic Frontier: Conceptual Issues in Cyberspace*. Cambridge, Ma.: MIT Press, 9-34.

Bruner, J. (1991). 'The Narrative Construction of Reality'. *Critical Inquiry*, 18, 1-21.

Bruns, A. (2008). *Blogs, Wikipedia, Second Life, and Beyond: From Production to Produsage*. New York: Peter Lang.

Bukatman, S. (1993). *Terminal Identity: The Virtual Subject in Postmodern Science Fiction*. Durham and London: Duke University Press.

Burrell, G. and G. Morgan (2005). *Sociological Paradigms and Organizational Analysis*. Hants and Burlington: Ashgate Publishing [1979].

Butler, J. (1986). 'Sex and Gender in Simone de Beauvoir's *Second Sex*'. *Yale French Studies*, 72, 35-49.

Butler, J. (1993). *Bodies that Matter: On the Discursive Limits of 'Sex'*. New York and London: Routledge.

Butler, J. (1999). *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge [1990].

Butler, J. (2004). 'Performative Acts and Gender Constitution'. In H. Bial (ed.). *The Performance Studies Reader*. New York: Routledge, 154-166.

Caillois, R. (2001). *Man, Play and Games*. Urbana and Chicago: University of Illinois Press [1961].

Calleja, G. (2007). 'Digital Game Involvement: A Conceptual Model'. *Games and Culture*, 2: 3, 236-260.

Calleja, G. (2010). 'Digital Games and Escapism'. *Games and Culture*, 5: 4, 335-353.

Canclini, N.G. (1990). *Culturas Híbridas – Estrategias para Entrar y Salir de la Modernidad* [*Hybrid Cultures – Strategies for Entering and Leaving Modernity*]. Mexico: Grijalbo.

Canclini, N.G. (1997). 'El Malestar en los Estudios Culturales' ['The Discomfort of Cultural Studies']. *Fractal*, 6: 2, 45-60.

Çapin, T.K., I.S. Pandzic, N. Magnenat-Thalmann, and D. Thalmann (1999). *Avatars in Networked Virtual Environments*. New York: John Wiley and Sons.

Carey, J.W. (1992). *Communication as Culture: Essays on Media and Society*. New York and London: Routledge [1989].

Carlson, M. (2004). 'What is performance?'. In H. Bial (ed.). *The Performance Studies Reader*. London and New York: Routledge, 68-73.

Carson, D. (2000). 'Environmental Storytelling: Creating Immersive 3D Worlds Using Lessons Learned from the Theme Park Industry'. In *Gamasutra*, March 1. Retrieved, July 2010, from www.gamasutra.com/view/feature/3186/environmental_storytelling.php.

Castells, M. (1997). *The Power of Identity*. Oxford and Cambridge, Ma.: Blackwell.

Castells, M. (2003). *The Internet Galaxy: Reflections on the Internet, Business, and Society*. Oxford and New York: Oxford University Press.

Castells, M. (2007). 'Communication, Power and Counter-power in the Network Society'. *International Journal of Communication*, 1, 238-266. Retrieved, October 2011, from: http://ijoc.org/ojs/index.php/ijoc/article/view/46/35.

Castells, M. (2008). 'The New Public Sphere: Global Civil Society, Communication Networks, and Global Governance'. *Annals AAPSS*, 616, 78-93.

Castells, M. (2009). *Communication Power*. Oxford: Oxford University Press.

Castronova, E. (2001). 'Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier'. *The Gruter Institute Working Papers on Law, Economics, and Evolutionary Biology*, 2: 1. Retrieved, June 2009, from www.bepress.com/giwp/default/vol2/iss1/art1.

Castronova, E. (2002). 'On Virtual Economies'. *CESifo Working Paper Series*, No. 752. Retrieved, June 2009, from http://ssrn.com/abstract=338500.

Castronova, E. (2003). 'Theory of the Avatar'. *CESifo Working Paper Series*, No. 863. Retrieved, June 2009, from http://ssrn.com/abstract=385103.

Castronova, E. (2005). *Synthetic Worlds: The Business and Culture of Online Games*. Chicago and London: The University of Chicago Press.

Castronova, E. (2007). *Exodus to the Virtual World: How Online Fun Is Changing Reality*. New York: Palgrave Macmillan.

Champion, E. and B. Dave (2007). 'Dialing Up the Past'. In F. Cameron and S. Kenderdine (eds.). *Theorizing Digital Cultural Heritage*. Cambridge, Ma.: MIT Press, 333-347.

Chatzichristodoulou, M. (2009). 'Digital Storytelling as Play: The Tale of Tales'. J. Hartley and K. McWilliam (eds.). *Story Circle: Digital Storytelling around the World*. Malden, Ma. and Oxford: Wiley-Blackwell, 221-229.

Cheng, L., S. Farnham, and L. Stone (2002). 'Lessons Learned: Building and Deploying Shared Virtual Environments'. In R. Schroeder (ed.). *The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments*. London: Springer Verlag, 90-111.

Cherny, L. (1999). *Conversation and Community: Discourse in a Social MUD*. Stanford, Ca.: CSLI Publications.

Cheung, C. (2000) 'A Home on the Web: Presentations of Self in Personal Homepages'. In D. Gauntlett (ed.). *Web Studies: Rewiring Media Studies for the Digital Age*. London: Arnold, 43-51.

Clynes, M.E. and N.S. Kline (1995). 'Cyborgs and Space'. In C.H. Gray, H.J. Figueroa-Sarriera, and S. Mentor (eds.). *The Cyborg Handbook*. London and New York: Routledge, 29-33.

Consalvo, M. (2007). *Cheating: Gaining Advantage in Videogames*. Cambridge (Ma.): MIT Press.

Cooley, C.H. (1983). *Social Organization: A Study of the Larger Mind*. New Brunswick, NJ: Transaction Books.

Crawford, G. and J. Rutter (2007). 'Playing the Game: Performance in Digital Game Audiences'. In J. Gray, C. Sandvoss, and C.L. Harrington (eds.). *Fandom: Identities and Communities in a Mediated World*. New York: New York University Press, 271-281.

Crystal, D. (2003). *English as a Global Language*. Cambridge: Cambridge University Press [1997].

Crystal, D. (2006). *The Language and the Internet*. Cambridge: Cambridge University Press [2001].

de Beauvoir, S. (1989). *The Second Sex*. New York: Vintage Books [1949].

de Certeau, M. (1994). *The Practice of Everyday Life*. Berkeley: University of California Press [1984].

de Lauretis, T. (1987). *Technologies of Gender*: *Essays on Theory, Film and Fiction*. Bloomington: Indiana University Press.

December, J. (1997). 'Notes on Defining Computer-Mediated Communication'. *CMC Magazine*, 1 (January). Retrieved, June 2009, from www.december.com/cmc/mag/1997/jan/december.html.

DeKoven, B. (1978). *The Well-Played Game: A Player's Philosophy.* New York: Anchor Press.

Deleuze, G. and F. Guatarri (2005). *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: Minnesota University Press [1987].

Dibbell, J. (1998). *My Tiny Life: Crime and Passion in a Virtual World*. New York: Henry Holt and Company.

Dibbell, J. (2007a). *Play Money: Or, How I Quit My Day Job and Made Millions Trading Virtual Loot*. New York: Basic Books [2006].

Dibbell, J. (2007b). 'Introduction'. In R. Cooper. *Alter Ego – Avatars and Their Creators*. London: Chris Boot, 3-7.

Donath, J.S. (1999). 'Identity and Deception in the Virtual Community'. In P. Kollock and M. Smith (eds). *Communities in Cyberspace*. London: Routledge, 27-57.

Dovey, J. and H. Kennedy (2006). *Games Cultures: Computer Games as New Media*. Maidenhead, UK: Open University Press.

du Gay, P., S. Hall, L. Janes, H. Mackay, and K. Negus (1997). *Doing Cultural Studies: The Story of the Sony Walkman*. Milton Keynes: The Open University/Sage.

Ducheneaut, N., M. Wen, N. Yee, and G. Wadley (2009). 'Body and Mind: A Study of Avatar Personalization in Three Virtual Worlds'. *Proceedings of CHI 2009*. Retrieved, December 2009, from
http://www.nickyee.com/pubs/Ducheneaut,%20Wen,%20Yee,%20Wadley%20-%20CHI%202009.pdf.

Ducheneaut, N., N. Yee, E. Nickell, and R.J. Moore (2006). '"Alone Together?" Exploring the Social Dynamics of Massively Multiplayer Online Games'. *Proceedings of CHI 06.* Retrieved, June 2010, from
www.nickyee.com/pubs/Ducheneaut,%20Yee,%20Nickell,%20Moore%20-%20Alone%20Together%20(2006).pdf.

Dumitrica, D. and G. Gaden (2009). 'Knee-high Boots and Six-Pack Abs: Auto-ethnographic Reflections on Gender and Technology in *Second Life*'. *Journal of Virtual Worlds Research*, 1: 3. Retrieved, September 2011, from http://journals.tdl.org/jvwr/article/view/323/422.

Durlach, N. and M. Slater (2000). 'Presence in Shared Virtual Environments and Virtual Togetherness'. *Presence: Teleoperators and Virtual Environments*, 9: 2, 214-217.

Dutta, S., W.H. Dutton, and G. Law (2011). 'The New Internet World: A Global Perspective on Freedom of Expression, Privacy, Trust and Security Online'. Retrieved, June 2012, from http://ssrn.com/abstract=1810005.

Dyer, M.G. (1994). 'Toward Synthesizing Artificial Neural Networks that Exhibit Cooperative Intelligent Behavior: Some Open Issues in Artificial Life'. *Artificial Life*, 1: 1/2, 111-135.

Ensslin, A. (2011). 'Avatar Needs and the Remediation of Architecture in *Second Life*™'. In A. Ensslin and E. Muse (eds). *Creating Second Lives: Community, Identity, and Spatiality as Constructions of the Virtual*. London and New York: Routledge, 169-189.

Ess, C. (2010). 'The Embodied Self in a Digital Age: Possibilities, Risks, and Prospects for a Pluralistic (Democratic/Liberal) Future?'. *Nordicom-Information*, 2-3, 105-118. Retrieved, September 2011, from

www.nordicom.gu.se/common/publ_pdf/319_10%20ess.pdf.

Ess, C. and M. Thorseth (2011). 'Introduction'. In C. Ess and M. Thorseth (eds.). *Trust and Virtual Worlds: Contemporary Perspectives*. New York: Peter Lang, vii-xxix.

Esteves, M., B. Fonseca, L. Morgado, and P. Martins (2011). 'Improving Teaching and Learning of Computer Programming through the Use of the *Second Life* Virtual World. *British Journal of Educational Technology*, 42: 4, 624–637.

Featherstone, M. and R. Burrows (1995). 'Cultures of Technological Embodiment: An Introduction'. In M. Featherstone and R. Burrows (eds.). *Cyberspace/Cyberbodies/Cyberpunk: Cultures of Technological Embodiment*. London, Thousand Oaks, New Delhi: Sage, 1-19.

Ferreira, C. (2009). 'Virtualizing War Memory in *Second Life*'. Paper presented at CECC International Conference – *The (In)visibility of War*. Lisbon, Portugal, May 7-9.

Ferreira, C. (2011a). 'Remixing the "American Dream": *Second Life* and its Inhabitants'. Paper presented at the 32nd Annual Conference of the Portuguese Association for Anglo-American Studies – *Current Debates in English and American Studies*. Coimbra, Portugal, May 12-14.

Ferreira, C. (2011b). 'Co-creating *Second Life*: Participatory Culture and the Remix of Cultural Narratives'. Paper presented at CECC 2nd International Graduate Conference in Communication and Culture – *The Culture of the Remix*. Lisbon, Portugal, October 13-14.

Ferreira, C. (2011c). 'Remixing the "American Dream": Narratives of Space and Place in *Second Life*'. Paper presented at *SLACTIONS 11*. Hong Kong, Vila Real (Portugal) and *Second Life*, November 19.

Ferreira, C. (2012). 'Memory and Heritage in *Second Life*: Recreating Lisbon in a Virtual World'. *Journal of Gaming and Virtual Worlds*, 4: 1, 63-79.

Fischer, G. (2005). 'Social Creativity: Making All Voices Heard'. Retrieved, May 2012, from http://l3d.cs.colorado.edu/~gerhard/papers/social-creativity-hcii-2005.pdf.

Fischer, G. (2011). 'Social Creativity: Exploiting the Power of Cultures of Participation'. *Proceedings of SKG2011: 7th International Conference on Semantics, Knowledge and Grids*. IEEE: Computer Society: Washington, D.C., 1-8.

Fischer, G. and E. Giaccardi (2007). 'Sustaining Social Creativity'. *Communications of the ACM*, 50: 12, 28-29.

Flichy, P. (2007). *The Internet Imaginaire*. Cambridge, Ma.: MIT Press.

Flores, W.V. and R. Benmayor (1997). *Latino Cultural Citizenship: Claiming Identity, Space, and Rights*. Boston, Ma.: Beacon Press.

Forte, M. and A. Siliotti (eds.) (1996). *Virtual Archaeology: Great Discoveries Brought to Life Through Virtual Reality*. London: Thames and Hudson.

Foucault, M. (1990). *The History of Sexuality: An Introduction*. New York: Vintage Books.

Foucault, M. (1997). 'Of Other Spaces: Utopias and Heterotopias'. In N. Leach. *Rethinking Architecture: A Reader in Cultural Theory*. London and New York: Routledge, 350-356.

Fragoso, S. and N. Rosário (2008). 'Just Like Me Only Better'. F. Sudweeks, H. Hrachovec and C. Ess (eds.). *Proceedings Cultural Attitudes towards Communication and Technology 2008*. Perth: Murdoch University, 314-327.

Frias, P. (2010). 'Novos Colonos – Comunicação, Representação e Apropriação do Espaço em Mundos Virtuais Online, A Comunidade Portuguesa em *Second Life*®' ('New Settlers – Communication, Representation and Appropriation of Space in Online Virtual Worlds, The Portuguese Community in *Second Life*®'). Unpublished Ph.D. thesis, Lisbon: New University of Lisbon. Retrieved, June 2011, from repositorio-aberto.up.pt/handle/10216/26308.

Friedman, D., A. Steed, and M. Slater (2007). 'Spatial Social Behavior in *Second Life*'. In C. Pelachaud, J.-C. Martin, E. André, G. Chollet, K. Karpouzis, and D. Pelé (eds.). *Intelligent Virtual Agents – 2007 Proceedings*. London: Springer Verlag, 252-263.

Froy, F. (2003). 'Indeterminacy in Cyberspace'. In N. Segal, L. Taylor, and R. Cook (eds.). *Indeterminate Bodies*. New York: Palgrave Macmillan, 139-151.

Fuchs, C. (1995). '"Death is Irrelevant" – Cyborgs, Reproduction, and the Future of Male Hysteria'. In C.H. Gray, H.J. Figueroa-Sarriera, and S. Mentor (eds.). *The Cyborg Handbook*. London and New York: Routledge, 281-300.

Fuglsang, L. (2001). 'Three Perspectives in STS in the Policy Context'. In S.H. Cutcliffe and C. Mitcham. *Visions of STS: Counterpoints in Science, Technology, and Society Studies*. New York: State University of New York Press, 35-49.

Gaden, G. and D. Dumitrica (2010). 'Disciplining Fantasy Bodies in *Second Life*'. In T. Krijnen, C. Alvares, and S. van Bauwel (eds.). *Gendered Transformations – Theory and Practices on Gender and Media*. Bristol: Intellect, 133-147.

Ganito, C. and C. Ferreira (2009). 'Mobile Fragility: On Women and the Mobile Phone'. Paper presented at the Annual Meeting of the International Communication Association, Chicago, United States of America, May 21-25.

Ganito, C. and C. Ferreira (2012). 'From the Coffee Table Album to the Mobile Phone. A Portuguese Case Study'. In P.H. Cheong, J.N. Martin and L.P. Macfadyen (eds.). *New Media and Intercultural Communication: Identity, Community, and Politics*. New York, Peter Lang, 237-249.

Gee, J.P. (2008). 'Video Games and Embodiment'. *Games and Culture*, 3: 3, 253-263.

Gelernter, D.H. (1991). *Mirror Worlds, or, The Day Software Put the Universe in a Shoebox: How It Will Happen and What Will It Mean*. Oxford: Oxford University Press.

Giddens, A. (1976). 'Functionalism: *après la lutte*'. *Social Research*, 43, 325-366.

Giddens, A. (1986). *The Constitution of Society: Outline of the Theory of Structuration*. Oxford and Cambridge: Polity Press [1984].

Giddens, A. (1990). *The Consequences of Modernity*. Cambridge: Polity Press.

Giddens, A. (1991). *Modernity and Self-Identity: Self and Society in Late Modern Age*. Cambridge: Polity Press.

Gil, I.C. (2008). '*Second Life*: Thoughts on Literature and Human(ism)'. *In* M. Scmitz-Emans, C. Schmitt, and C. Winterhalter (orgs.). *Komparatistik als Humanwissenschaft. Festschrift zum 65. Geburstag von Manfred Schmeling*. Würzburg: Köningshausen und Neumann, 49-56.

Gil, I.C. and C. Ganito (2010). 'Paródia, Pastiche, Perversão e Política: A Teoria no Reino do Pós-Género' ('Parody, Pastiche, Perversion and Politics: The Theory in the Realm of Post-Gender'). *Comunicação & Cultura*, 9, 11-23.

Gil, I.C. and J.F. Duarte (2011). 'Introduction: Modernity's Fluid Cartographies'. *Journal of Romance Studies*, 11: 1, 1-9.

Gilbert, E. and E. Helleiner (1999). *Nation-States and Money: The Past, Present and Future of National Currencies*. New York: Tailor & Francis.

Gilles, J. (2006). 'Concept of "Personal Space" Survives in Virtual Reality'. *Nature News*. Retrieved, December 2011, from www.nature.com/news/2006/060911/full/news060911-3.html.

Gillis, S. (2005). 'Introduction'. In S. Gillis (ed.). *The Matrix Trilogy: Cyberpunk Reloaded*. London: Wallflower Press, 1-8.

Glassman, M. (2004). 'Braving Bullying Hecklers, Simulants Run for President'. In *The New York Times*, April 1. Retrieved, June 2009, from
http://www.nytimes.com/2004/04/01/technology/braving-bullying-hecklers-simulants-run-for-president.html?pagewanted=all&src=pm.

Goffman, E. (1972). *Encounters: Two Studies in the Sociology of Interaction.* Harmondsworth: Penguin University Books [1961].

Goffman, E. (1974). *Frame Analysis: An Essay on the Organization of Experience*. New York: Harper & Row.

Goffman, E. (1982). *Interaction Ritual*. New York: Anchor Books [1967].

Goffman, E. (1983), 'The Interaction Order'. *American Sociological Review*, 48: 1, 1-17.

Goffman, E. (1990). *The Presentation of Self in Everyday Life*. London: Penguin Books [1959].

Goldman, E. (1994). *As Others See Us: Body Movement and the Art of Successful Communication.* New York: Routledge.

Goldsmith, J. and T. Wu (2006). *Who Controls the Internet? Illusions of a Borderless World*. Oxford and New York: Oxford University Press.

González, J. (1995). 'Envisioning Cyborg Bodies: Notes from Current Research'. In C.H. Gray, H.J. Figueroa-Sarriera, and S. Mentor (eds.). *The Cyborg Handbook*. London and New York: Routledge, 267-279.

Gordon, E. (2008). 'The Geography of Virtual Worlds: An Introduction'. In *Space and Culture*, 11: 3, 200-203.

Graham, E.L. (1999). 'Cyborgs or Goddesses? Becoming Divine in a Cyberfeminist Age'. *Information, Communication & Society*, 2: 4, 419-438.

Graham, E.L. (2002). *Representations of the Post/Human: Monsters, Aliens and Others in Popular Culture*. Manchester: Manchester University Press.

Graham, E.L. (2003). 'Frankensteins and Cyborgs: Visions of the Global Future in an Age of Technology'. *Studies in Christian Ethics*, 16: 1, 29-43.

Graham, E.L. (2004). 'Post/Human Conditions'. *Theology & Sexuality*, 10: 2, 10-32.

Gray, C.H., S. Mentor, and H.J. Figueroa-Sarriera (1995). 'Cyborgology: Constructing the Knowledge of Cybernetic Organisms'. In C.H. Gray, H.J. Figueroa-Sarriera, and S. Mentor (eds.). *The Cyborg Handbook*. London and New York: Routledge, 1-14.

Grimmelmann, J. (2009). 'On the *Second Life* Tax Revolt'. Paper presented at the *Conference State of Play VI*, New York: June 18 and 19. Retrieved, July 2010, from http://lawmeme.research.yale.edu/modules.php?name=News&file=article&sid=1222.

Groom, V., J.N. Bailenson, and C. Nass (2009). 'The Influence of Racial Embodiment on Racial Bias in Immersive Virtual Environments'. *Social Influence*, 4: 3, 1-18.

Grusin, R. (2006). 'DVDs, Video Games, and the Cinema of Interactions'. *Ilha do Desterro*, 51, 69-91. Retrieved, October 2011, from http://www.periodicos.ufsc.br/index.php/desterro/article/view/9778/9010.

Grusin, R. (2010). *Premediation: Affect and Mediality After 9/11*. Basingstoke and New York: Palgrave Macmillan.

Gunawardena, C. (1995). 'Social Presence Theory and Implications for Interaction and Collaborative Learning in Computer Conferencing'. *International Journal of Educational Telecommunications*, 1: 2-3, 147-166.

Habermas, J. (1993). *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. Cambridge, Ma.: MIT Press [1962].

Haferkamp, N., S.C. Eimler, A.-M. Papadakis, and J.V. Kruck (2012). 'Men Are from Mars, Women Are from Venus? Examining Gender Differences in Self-Presentation on Social Networking Sites'. *Cyberpsychology, Behavior, and Social Networking*, 15: 2, 91-98.

Halberstam, J. (1991). 'Automating Gender: Postmodern Feminism in the Age of the Intelligent Machine'. *Feminist Studies*, 17: 3, 439-460.

Halberstam, J. and I. Livingstone (eds.) (1995). *Posthuman Bodies*. Bloomington and Indianapolis: Indiana University Press.

Hall, E.T. (1990). *The Hidden Dimension*. New York: Anchor Books [1966].

Hall, S. (1990). 'Cultural Identity and Diaspora'. In J. Rutherford (ed.). *Identity: Community, Culture, Difference.* London: Lawrence & Wishart, 222-237.

Hall, S. (1996). 'Who Needs Identity?'. In S. Hall and P. du Gay (eds.). *Questions of Cultural Identity.* London: Sage, 1-17.

Hall, S. (2003a). 'Introduction'. In S. Hall (ed.). *Representation: Cultural Representations and Signifying Practices.* Milton Keynes, London, Thousand Oaks, and New Delhi: The Oxford University Press and Sage, 1-11 [1997].

Hall, S. (2003b). 'The Work of Representation'. In S. Hall (ed.). *Representation: Cultural Representations and Signifying Practices.* Milton Keynes, London, Thousand Oaks, and New Delhi: The Oxford University Press and Sage, 13-64 [1997].

Haney, W.S. (2006). *Cyberculture, Cyborgs and Science Fiction: Consciousness and the Posthuman*. Amsterdam and New York: Rodopi.

Hanks, W.F. (1996). *Language & Communicative Practices*. Boulder, CO: Westview Press.

Hansen, M.B. (2006). *Bodies in Code: Interfaces with Digital Media*. New York and London: Routledge.

Hansson, M.G. (2008). *The Private Sphere − An Emotional Territory and Its Agent*. London: Springer Verlag.

Haraway, D.J. (1991). 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century'. In *Simian, Cyborgs, and Women*. London and New York: Routlegde, 149-181.

Haraway, D.J. (1995). 'Cyborgs and Symbionts: Living Together in the New World Order'. In C.H. Gray, H.J. Figueroa-Sarriera, and S. Mentor (eds.). *The Cyborg Handbook*. London and New York: Routledge, xi-xx.

Harris, H., J.N. Bailenson, A. Nielsen, and N. Yee (2009). 'The Evolution of Social Behavior over Time in *Second Life*'. *Presence: Teleoperators & Virtual Environments*, 18: 6, 434-448.

Harrison, R. (2009). 'Excavating *Second Life*: Cyber-Archaeologies, Heritage and Virtual Communities'. *Journal of Material Culture* 14: 1, 75-106.

Harry, D., D. Offenhuber, and J. Donath (2008). 'The Social Role of Virtual Architecture'. In S. Doesinger (ed.). *Space between People: How the Virtual Changes Physical Architecture*. Munich: Prestel, 64-70.

Hauben, M. and R. Hauben (1997). *Netizens: On the History and Impact of Usenet and the Internet*. Los Alamitos, Ca.: Wiley and IEEE Computer Society Press.

Hayles, N.K. (1995). 'The Life Cycle of Cyborgs: Writing the Posthuman'. In C.H. Gray, H.J. Figueroa-Sarriera, and S. Mentor (eds.). *The Cyborg Handbook*. London and New York: Routledge, 321-335.

Hayles, N.K. (1999). *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago and London: The University of Chicago Press.

Hayles, N.K. (2004). 'Refiguring the Posthuman'. *Comparative Literature Studies*, 41: 3, 311-316.

Heeter, C. (1992). 'Being There: The Subjective Experience of Presence'. *Presence: Teleoperators and Virtual Environments*, 4: 1, 64-80.

Heider, D. (2009). 'Identity and Reality: What Does It Mean to Live Virtually? '. In D. Heider (ed.). *Living Virtually: Researching New Worlds*. New York, Peter Lang, 131-143.

Heim, M. (1993). *The Metaphysics of Virtual Reality*. New York and Oxford: Oxford University Press.

Helleiner, E. (2003). *The Making of National Money: Territorial Currencies in Historical Perspective*. Ithaca: Cornell University Press.

Helmreich, S. (1998). *Silicon Second Nature: Culturing Artificial Life in a Digital World*. Berkley, Ca.: University of California Press.

Herder, J.G. von (1986). *Abhandlung über den Ursprung der Sprache*. Stuttgart: Reclam [1772].

Hillis, K. (1999). *Digital Sensations: Space, Identity, and Embodiment in Virtual Reality*. Minneapolis: University of Minnesota Press.

Hine, C. (2000). *Virtual Ethnography*. London, Thousand Oaks, New Delhi: Sage.

Hine, C. (ed.) (2005). *Virtual Methods: Issues in Social Research on the Internet*. Oxford, New York: Berg.

Ho, C., C. Basdogan, M. Slater, N. Durlach, and M.A. Srinivasan (1998). 'An Experiment on the Influence of Haptic Communication on the Sense of Being Together'. *Proceedings of the BT Presence Workshop*, BT Labs. Retrieved, May 2012, from www.cs.ucl.ac.uk/staff/m.slater/BTWorkshop/TouchExp/index.html.

Hobsbawm, E. and T. Ranger (eds.) (1983). *The Invention of Tradition*. Cambridge: Cambridge University Press.

Hubbard, P. and R. Kitchin (2010). *Key Thinkers on Space and Place*. London, Thousand Oaks, New Delhi: Sage (Second Edition).

Huizinga, J. (1971). *Homo Ludens: A Study of the Play Element in Culture*. Boston: Beacon Press [1938].

Huyssen, A. (1995). *Twilight Memories: Marking Time in a Culture of Amnesia*. London and New York: Routledge.

Ikegami, E. and P. Hut (2008). 'Avatars Are for Real: Virtual Communities and Public Spheres'. *Journal of Virtual Worlds Research*, 1: 1. Retrieved, October 2010, from http://journals.tdl.org/jvwr/article/view/288/242.

Ivory, J. (2009). 'Technological Developments and Transitions in Virtual Worlds'. In D. Heider (ed.). *Living Virtually: Researching New Worlds*. New York: Peter Lang, 11-22.

Jameson, F. (1998). 'Postmodernism and Consumer Society'. In F. Jameson. *The Cultural Turn: Selected Writings on the Postmodern 1983-1998*. London and New York: Verso, 1-20.

Jameson, F. (2003). *Postmodernism, or, The Cultural Logic of Late Capitalism*. Durham: Duke University Press [1991].

Jameson, F. (2005). *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions.* London and New York: Verso.

Jarmusch, J. (2004). 'Jim Jarmusch's Golden Rules'. In *MovieMaker*, 53. Retrieved, June 2012, from www.moviemaker.com/directing/article/jim_jarmusch_2972/.

Jenkins, H. (2004). 'Playing Politics in Alphaville'. *Technology Review*, May 7. Retrieved, January 2010, from www.technologyreview.com/news/402737/playing-politics-in-alphaville/.

Jenkins, H. (2006). *Fans, Bloggers and Gamers: Media Consumers in a Digital Age*. New York: New York University Press.

Jenkins, H. (2007). 'Narrative Spaces'. In F. von Borries, S.P. Walz and M. Böttger (eds.). *Space, Time, Play*. Basel, Boston and Berlin: Birkhäuser, 56-60.

Johnson, N. (2002). 'Mapping Monuments: The Shaping of Public Sphere and Cultural Identities'. *Visual Communication* 1: 3, 293-298.

Johnson, P. (2010). Second Life*, Media, and the Other Society*. New York: Peter Lang.

Jones, D.E. (2006). 'I, Avatar: Constructions of Self and Place in *Second Life* and the Technological Imagination'. *Gnovis*, retrieved, November 2011, from http://gnovisjournal.org/files/Donald-E-Jones-I-Avatar.pdf.

Jones, S. (1997). 'Internet and its Landscapes'. In S. Jones (ed.). *Virtual Culture: Identity and Communication in Cybersociety*. London, Thousand Oaks, New Delhi: Sage, 7-35.

Kaare, B.H. and K. Lundby (2008). 'Mediatized Lives: Autobiography and Assumed Authenticity in Digital Storytelling'. In K. Lundby (ed.). *Digital Storytelling, Mediatized Stories*. New York: Peter Lang, 105-122.

Kafai, Y.B., D.A. Fields and M.S. Cook (2010). 'Your Second Selves: Player-Designed Avatars'. *Games and Culture*, 5: 1, 23-42.

Kafai, Y.B., M.S. Cook, and D.A. Fields (2007). '"Blacks Deserve Bodies Too!" Design and Discussion about Diversity and Race in a Tween Online World'. *Situated Play, Proceedings of DiGRA 2007 Conference*. Retrieved, February 2010, from www.digra.org/dl/db/07312.14099.pdf.

Kang, H.-S. and H.D. Yang (2006). 'The Visual Characteristics of Avatars in Computer Mediated Communication: Comparison of Internet Relay Chat and Instant Messenger as of 2003'. *International Journal of Human-Computer Studies*, 64, 1173-1183.

Kaplan, A.M. and M. Haenlein (2009). 'The Fairyland of *Second Life*: About Virtual Social Worlds and How to Use Them'. *Business Horizons* 52: 6, 563-572.

Kedzior, R. and R.V. Kozinets (2009). 'I, Avatar: Auto-Netnographic Research in Virtual Worlds'. In N.T. Wood and M.R. Solomon (eds.). *Virtual Social Identity and Consumer Behavior*. New York: M.E. Sharpe, 3-19.

Kellner, D. (2000). 'Habermas, the Public Sphere, and Democracy: A Critical Intervention'. In L. Hahn (ed.). *Perspectives on Habermas*. Chicago: Open Court Press, 259-288.

Kendall, L. (1999). 'Recontextualising "Cyberspace": Methodological Considerations for Online Research'. In S. Jones (ed.). *Doing Internet Research: Critical Issues and Methods for Examining the Net.* London: Sage, 57-74.

Kendall, L. (2002). *Hanging Out in the Virtual Pub: Masculinities and Relationships Online*. Berkeley, Ca.: University of California Press.

Kennedy, H. (2006). 'Beyond Anonymity, or Future Directions for Internet Identity Research'. *New Media & Society*, 8: 6, 859-876.

Kerr, A., P. Brereton, J. Kücklich, and R. Flynn (2004). 'New Media: New Pleasures?'. *STeM Working Paper*. Retrieved, May 2012, from www.stem.dcu.ie/reports/NMNP.pdf.

Knapp, M.L. and J.A. Hall (2009). *Nonverbal Communication in Human Interaction*. Boston, Ma.: Wadsworth, Cengage Learning [1992].

Kolko, B. (1999). 'Representing Bodies in Virtual Space: The Rhetoric of Avatar Design'. *The Information Society*, 15, 177-186.

Kolko, B. (2000). 'Erasing @race: Going White in the (Inter)Face. In B. Kolko, L. Nakamura, and G.B. Rodman (eds.). *Race in Cyberspace*. New York and London: Routledge, 213-232.

Kollock, P. (1998). 'Design Principles for Online Communities'. *PC Update*,15: 5, 58-60.

Kollock, P. and M. Smith (eds.) (1998). *Communities in Cyberspace*. London: Routledge.

Koster, R. (2006). 'Declaring the Rights of Players'. In J.M. Balkin and B.S. Noveck (eds.). *The State of Play: Law, Games, and Virtual Worlds*. New York and London: New York University Press, 55-67.

Kozinets, R.V. (1998). 'On Netnography: Initial Reflections on Consumer Research Investigations of Cyberculture.' In J. Alba and W. Hutchinson (eds.) *Advances in Consumer Research*, vol. 25. Provo, UT: Association for Consumer Research, 366-371.

Kozinets, R.V. (2002). 'The Field behind the Screen: Using Netnography for Marketing Research in Online Communities'. *Journal of Marketing Research*, 39, 61-72.

Kozinets, R.V. (2006). 'Netnography 2.0'. In R.W. Belk (ed.) *Handbook of Qualitative Research Methods in Marketing*. Cheltenham, UK, and Northampton, MA: Edward Elgar, 129-142.

Kozinets, R.V. (2010). *Netnography: Doing Ethnographic Research Online*. London, Thousand Oaks, New Delhi: Sage.

Kozinets, R.V. (2012). 'Inventing Netnography'. Keynote lecture presented at the Workshop of the COST Action IS0906 – *Transforming Audiences, Transforming Societies*. Brussels, Belgium, 12-14 April.

Krotoski, A.K. (2009). 'Social Influence in *Second Life*: Social Network and Social Psychological Processes in the Diffusion of Belief and Behaviour on the Web'.

Unpublished PhD thesis, University of Surrey. Retrieved, June 2011, from http://epubs.surrey.ac.uk/2252/1/511096.pdf.

Krotoski, A.K. (2010). 'Introduction to the Special Issue: Research Ethics in Online Communities'. *International Journal of Internet Research Ethics*, 3: 1, 1-5.

Krotoski, A.K., E. Lyons, and J. Barnett (2009). 'The Social Life of *Second Life*: An Analysis of the Social Networks of a Virtual Word'. In D. Heider (ed.). *Living Digitally: Researching New Worlds*. New York: Peter Lang, 47-65.

Kushner, D. (2003). *Masters of the Doom: How Two Guys Created an Empire and Transformed Pop Culture*. New York: Random House.

Lahti, M. (2003). 'As We Become Machines – Corporealized Pleasures in Video Games'. M. Wolf and B. Perron. *The Video Game Theory Reader*. New York and London: Routledge, 157-170.

Lastowka, F.G. and D. Hunter (2004). 'The Laws of the Virtual Worlds'. *California Law Review*, 92: 1, 1-73.

Lastowka, F.G. and D. Hunter (2006). 'Virtual Crime'. In J.M. Balkin and B.S. Noveck (eds.). *The State of Play: Law, Games, and Virtual Worlds*. New York and London: New York University Press, 121-136.

Lastowka, G. (2010). *Virtual Justice: The New Laws of Online Worlds*. New Haven and London: Yale University Press.

Laurel, B. (1991). *Computer as Theatre*. Reading, Ma.: Addison-Wesley Publishing.

Lefebvre, H. (1991). *The Production of Space*. Oxford and Cambridge, Ma.: Blackwell [1974].

Lenoir, T. (2002). 'Makeover: Writing the Body into the Posthuman Technoscape, Part One: Embracing the Posthuman'. *Configurations*, 10, 203-220.

Lessig, L. (2004). *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*. New York: The Penguin Press.

Lessig, L. (2006). *Code: Version 2.0*. New York: Basic Books [1999].

Lessig, L. (2009). *Remix: Making Art and Commerce Thrive in the Hybrid Economy*. London: Penguin Books [2008].

Lévinas, E. (1999). *Totality and Infinity*. Pittsburgh: Duquesne University Press [1969].

Lippmann, W. (1997). *Public Opinion*. New Brunswick, NJ: Transaction Publishers [1922].

Lockard, J. (1997). 'Progressive Politics, Electronic Individualism, and the Myth of Virtual Community'. In D. Porter (ed.). *Internet Culture*. New York: Routledge, 219-231.

Lomanowska, A.M. and M.J. Guitton (2012). 'Spatial Proximity to Others Determines How Humans Inhabit Virtual Worlds'. *Computers in Human Behavior*, 28, 318-323.

Lopes, A., B. Pires, M. Cardoso, A. Santos, F. Peixinho, P. Sequeira, *et al.* (2009). 'Use of a Virtual World System in Sports Coach Education for Reproducing Team Handball Movements. *Journal of Virtual Worlds Research*, 1: 2. Retrieved, May 2010, from http://journals.tdl.org/jvwr/article/view/399/457.

Ludlow, P. and M. Wallace (2007). *The* Second Life *Herald: The Virtual Tabloid that Witnessed the Dawn of the Metaverse*. Cambridge, Ma.: MIT Press.

Lundby, K. (2008). 'Introduction: Digital Storytelling, Mediatized Stories'. In K. Lundby (ed.). *Digital Storytelling, Mediatized Stories*. New York: Peter Lang, 1-17.

Lynche, K. (1960). *The Image of the City*. Cambridge, Ma.: MIT Press.

Malaby, T.M. (2006). 'Parlaying Value: Capital in and Beyond Virtual Worlds'. *Games and Culture*, 1: 2, 141-162.

Malaby, T.M. (2009). 'These Great Urbanist Games: New Babylon and *Second Life*'. *Artifact* 2: 3, 1-7.

Manovich, L. (2001). *The Language of New Media*. Cambridge, Ma.: MIT Press.

Markham, A.N. (1998). *Life Online: Researching Real Experience in Virtual Space*. Walnut Creek, Ca.: Altamira Press.

Markham, A.N. and N.K. Baym (2009). *Internet Inquiry: Conversations about Method*. London, Thousand Oaks, New Delhi: Sage.

Marsden, J. (1996). 'Virtual Sexes and Feminist Futures: The Philosophy of "Cyberfeminism"'. *Radical Philosophy*, 78, 6-16.

Martínez, N.M. (2011). 'Liminal Phases of Avatar Identity: Formation in Virtual World Communities'. In A. Peachey and M. Childs (eds.). *Reinventing Ourselves: Contemporary Concepts of Identity in Virtual Worlds*. London: Springer, 59-80.

Maslow, A. (1943). 'A Theory of Human Motivation'. *Psychological Review*, 50: 4, 370-396.

Massumi, B. (2002). *Parables for the Virtual: Movement, Affect, Sensation*. Durham and London: Duke University Press.

Massumi, B. (2007). 'The Thinking-Feeling of What Happens'. In B. Massumi, D. Mertins, L. Spuybroek, N. Marres, and C. Hubler (eds.). *Interact or Die: There is Drama in the Networks*. Rotterdam: NAi Publishers, 70-91.

Mauco, O. (2008). Politicization of the On-Line Worlds as a Problematic of a Private Space Publicized: Comparative Study of MMORPG and *Second Life*. Paper presented at *PCA ACA National Conference,* California, USA. Retrieved, June 2009, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1329345.

Mauss, M. (1966). *The Gift: Forms and Functions of Exchange in Archaic Societies*. London: Cohen & West [1950].

Maxwell, J.A. (2002). *Qualitative Research Design: An Interactive Approach*. London, Thousand Oaks, New Delhi: Sage.

McCulloch, W.S. (1988). *Embodiments of Mind*. Cambridge (Ma.): MIT Press [1965].

McKee, H.A. and J.E. Porter (2009). 'Playing a Good Game: Ethical Issues in Researching MMOGS and Virtual Worlds'. *International Journal of Internet Research Ethics*, 2: 1, 5-37.

McLuhan, M. (1994). *Understanding Media: The Extensions of Man*. Cambridge, Ma.: MIT Press [1964].

McPherson, T. (2000). 'I'll Take My Stand in Dixie-Net: White Guys, the South, and Cyberspace'. In B.E. Kolko, L. Nakamura, and G.B. Rodman (eds.). *Race in Cyberspace*. New York: Routledge, 117-131.

Meadows, M.S. (2008). *I Avatar: The Culture and Consequences of Having a Second Life*. Indianapolis: New Riders Publishing.

Mendes, J.M.O. (2005). 'O Desafio das Identidades' ['The Challenges of Identities']. In B. de Sousa Santos (org.). *Globalização – Fatalidade ou Utopia?*[*Globalization – Fatality or Utopia?*]. Porto: Edições Afrontamento, 489-523.

Meyrowitz, J. (1985). *No Sense of Place: The Impact of Electronic Media on Social Behavior*. New York: Oxford University Press.

Miller, H. and J.Arnold (2001). 'Self in Web Home Pages: Gender, Identity and Power in Cyberspace'. In G. Riva and C. Galimberti (eds.). *Towards Cyberpsychology: Mind, Cognitions and Society in the Internet Age*. Amsterdam: IOS Press, 73-94.

Miller, R., W. Michalski, and B. Stevens (2002). 'The Future of Money'. In OECD – Organisation for Economic Co-Operation and Development. *The Future of Money*. Paris: OECD Books, 11-30.

Mingers, J. (2001). 'Embodying Information Systems: The Contribution of Phenomenology'. *Information and Organization*, 11, 103-128.

Minsky, M. (1985). *The Society of Mind*. New York: Simon and Schuster.

Minsky, M. (2006). *The Emotion Machine: Commonsense Thinking, Artificial Intelligence, and the Future of the Human Mind*. New York: Simon and Schuster.

Mitchell, W.J. (1996). *City of Bits: Space, Place, and the Infobahn*. Cambridge (Ma.): MIT Press [1995].

Mnookin, J.L. (1996). 'Virtual(ly) Law: The Emergence of Law in *LambdaMOO*'. *Journal of Computer-Mediated Communication*, 2: 1. Retrieved, June, 2012, from http://jcmc.indiana.edu/vol2/issue1/lambda.html.

Mohammed, M.R. (2009). 'Cultural Identity in Virtual Reality (VR): A Case Study of a Muslim Woman with hijab in *Second Life* (SL)'. *Journal of Virtual Worlds Research*, 2: 2. Retrieved, September 2010, from http://journals.tdl.org/jvwr/article/view/435/492.

Moravec, H. (1988). *Mind Children: The Future of Robot and Human Intelligence*. Cambridge: Harvard University Press.

Moravec, H. (1998). *Robot: Mere Machine to Transcendent Mind*. Oxford and New York: Oxford University Press.

Morse, M. (1998). *Virtualities: Television, Media Art, and Cyberculture*. Bloomington, In.: Indiana University Press.

Murray, J. (1999). *Hamlet on the Holodeck*. Cambridge, Ma.: MIT Press [1997].

Murray, J. (2004). 'From Game-Story to Cyberdrama'. In N. Wardrip-Fruin and P. Harrigan (eds.). *First Person: New Media as Story, Performance and Game*. Cambridge, Ma.: MIT Press, 2-11.

Musser, J. (2007). *Web 2.0 Principles and Best Practices*. Sebastopol, Ca.: O'Reilly Media.

Nakamura, L. (1995). 'Race in/for Cyberspace: Identity Tourism and Racial Passing on the Internet'. *Works and Days*, 13: 1-2, 181-193.

Nakamura, L. (2002). *Cybertypes: Race, Ethnicity, and Identity on the Internet*. New York and London: Routledge.

Namakura, L. (2007). *Digitizing Race: Visual Cultures of the Internet*. Minneapolis: University of Minnesota Press.

Neugarten, B.L., J.W. Moore, and J.C. Lowe (1965). 'Age Norms, Age Constraints, and Adult Socialization'. *American Journal of Sociology*, 70: 6, 710-717.

Nora, P. (1989). 'Between Memory and History: Les Lieux de Mémoire'. *Representations*, 26: 7-24.

Norgaard, R.T. (2011). 'The Joy of Doing: The Corporeal Connection in Player-Avatar Identity'. Paper presented at *The Philosophy of Computer Games*. Retrieved, October 2011, from http://gameconference2011.files.wordpress.com/2010/10/thejoy1.pdf.

Oehlert, M. (1995). 'From Captain America to Wolverine: Cyborgs in Comic Books, Alternative Images of Cybernetic Heroes and Villains'. In C.H. Gray, H.J. Figueroa-Sarriera, and S. Mentor (eds.). *The Cyborg Handbook*. London and New York: Routledge, 219-232.

Oldenburg, R. (1999). *The Great Good Place: Cafés, Coffee Shops, Bookstores, Bars, Hair Salons and Other Hangouts at the Heart of a Community*. New York: Marlowe & Company [1989].

Ondrejka, C. (2004). 'A Piece of Place: Modeling the Digital on the Real in *Second Life*'. Retrieved, April 2009, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=614663.

Ondrejka, C. (2006). 'Escaping the Gilded Cage: User Created Content and Building the Metaverse'. In J.M. Balkin and B.S. Noveck (eds.). *The State of Play: Law, Games, and Virtual Worlds*. New York and London: New York University Press, 158-179.

Ortiz, A. and P.-E. Noble (2007). 'SL Survey: Residents Profile, Gambling and Engagement'. Survey results retrieved, March 2009, from http://slsurvey.wordpress.com/survey-result/.

Papacharissi, Z. (2002). 'The Virtual Sphere: The Internet as a Public Sphere'. *New Media & Society*, 14: 1, 9-27.

Papacharissi, Z. (2011). 'A Networked Self'. In Z. Papacharissi (ed.). *A Networked Self: Identity, Community, and Culture on Social Network Sites*. London and New York: Routledge, 304-317.

Pascu, C. (2008). 'An Empirical Analysis of the Creation, Use and Adoption of Social Computing Applications'. *IPTS Exploratory Research on Social Computing*. JRC Scientific and Technical Reports, EUR 23415 EN. Retrieved, July 2009, from http://ftp.jrc.es/EURdoc/JRC46431.pdf.

Pearce, C. (2009). *Communities of Play: Emergent Cultures in Multiplayer Games and Virtual Worlds*. Cambridge, Ma.: MIT Press.

Pearce, C. and Artemesia (2006). 'Communities of Play: The Social Construction of Identity in Persistent Online Game Worlds'. In N. Wardrip-Fruin and P. Harrigan (eds.). *Second Person – Role-Playing and Story in Games and Playable Media*. Cambridge (Ma.): MIT Press, 311-317.

Peña, J., J.T. Hancock, and N.A. Merola (2009). 'The Priming Effects of Avatars in Virtual Settings'. *Communication Research*, 36: 6, 838-856.

Pepperell, R. (2003). *The Posthuman Condition: Consciousness beyond the Brain*. Bristol, UK and Portland, USA: Intellect (Second Edition).

Pepperell, R. (2005). 'The Posthuman Manifesto'. *Kritikos*, 2, available from http://intertheory.org/pepperell.htm.

Pereira, A. (2011). 'Body-Representations and the Construction of Visual Meanings: A Few Interpretations'. *CIES e-Working Paper*, 114/2011. Retrieved, April 2011, from: http://repositorio-iul.iscte.pt/bitstream/10071/2976/1/CIES-WP114_Pereira.pdf.

Pickles, J. (2004). *A History of Spaces: Cartographic Reason, Mapping and the Geo-coded World*. London and New York: Routledge.

Pile, S. and N. Thrift (eds.) (1995). *Mapping the Subject: Geographies of Cultural Transformation*. London and New York: Routledge.

Pinchevski, A. (2005). *By Way of Interruption: Levinas and the Ethics of Communication*. Pittsburgh: Duquesne University Press.

Pita, S. (2008) 'As Interacções no *Second Life*: A Comunicação entre Avatares' ('Interactions within *Second Life*: The Communication among Avatars'). *Prisma.Com*, 6, 3-18. Retrieved, September 2011, from
http://prisma.cetac.up.pt/3_Interaccoes_no_Second_Live_Sara_Topete.pdf.

Pita, S. and L. Pedro (2011). 'Verbal and Non-Verbal Communication in *Second Life'*. In N. Zagalo, L. Morgado, and A. Boa-Ventura (eds.). *Virtual Worlds and Metaverse Platforms: New Communication and Identity Paradigms*. Hershey and London: IGI Global, 100-116.

Pottage, A. (2001). 'Persons and Things: An Ethnographic Analogy'. *Economy and Society*, 30: 1, 112-138.

Pratt, M.L. (1992). *Imperial Eyes: Travel Writing and Transculturation*. London and New York: Routledge.

Putnam, R.D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.

Putnam, R.D., L.M. Feldstein, and D. Cohen (2004). *Better Together: Restoring the American Community*. New York: Simon & Schuster.

Rainie, L. and B. Wellman (2012). *Networked: The New Social Operating System*. Cambridge, Ma.: MIT Press.

Reed, D.J. and G. Fitzpatrick (2008). 'Acting Your Age in *Second Life'*. In P. Markopoulos, B. de Ruyter, W. Ijsselsteijn, and D. Rowland (eds.). *Fun and Games: Proceedings of the 2nd International Conference*. Berlin: Springer-Verlag, 158-169.

Rehak, B. (2003). 'Playing at Being: Psychoanalysis and the Avatar'. In M. Wolf and B. Perron (eds.). *The Video Game Theory Reader*. London and New York: Routledge, 103-128.

Reid, E. (1996). 'Communication and Community on Internet Relay Chat: Constructing Communities'. In P. Ludlow (ed.). *High Noon on the Electronic Frontier*. Cambridge, Ma.: MIT Press, 397-412.

Rettie, R. (2003). 'Connectedness, Awareness and Social Presence'. Paper presented at *Presence 2003 – 6th Annual International Workshop on Presence*, Aalborg, Denmark. Retrieved, June 2012, from http://eprints.kingston.ac.uk/2106/1/Rettie.pdf.

Rheingold, H. (1992). *Virtual Reality*. London: Mandarin Paperbacks [1991].

Rheingold, H. (1993). *The Virtual Community: Homesteading on the Electronic Frontier*. Reading, Ma.: Addison-Wesley Publishing.

Rheingold, H. (1996). 'A Slice of My Life in My Virtual Community'. In P. Ludlow (ed.). *High Noon on the Electronic Frontier: Conceptual Issues in Cyberspace*. Cambridge, Ma.: MIT Press, 413-436.

Rheingold, H. (1998). 'Virtual Communities, Phony Civil Society?'. Retrieved, December, 2011, from www.rheingold.com/texts/techpolitix/civil.html.

Richmond, V.P. and J.C. McCroskey (2004). *Nonverbal Behavior in Interpersonal Relations*. Boston, Ma.: Allyn and Bacon/Pearson Education.

Riva, G., F. Mantovani, C.S. Capideville, A. Preziosa, F. Morganti, D. Villani, *et al*. (2007). 'Affective Interactions Using Virtual Reality: The Link between Presence and Emotions'. *Cyber-Psychology & Behavior*, 10, 45-56.

Rosenberg, A. (2010). 'Virtual World Research Ethics and the Private/Public Distinction'. *International Journal of Internet Research Ethics*, 3, 23-37.

Ryan, M.-L. (1991). *Possible Worlds, Artificial Intelligence, and Narrative Theory*. Bloomington, In.: Indiana University Press.

Ryan, M.-L. (1999). 'Immersion vs. Interactivity: Virtual Reality and Literary Theory'. *SubStance*, 28, 110-137.

Ryan, M.-L. (2001). *Narrative as Virtual Reality*. Baltimore: Johns Hopkins University Press.

Ryan, M-L. (2006). *Avatars of Story*. Minneapolis: University of Minnesota Press.

Rymaszewski, M., J.A. Au, C. Ondrejka, R. Platel, S. van Gorden, J. Cézanne, *et al.* (2008). Second Life*: The Official Guide*. Indianapolis: Wiley Publishing [2007].

Sallnäs, E.L. (2002). 'Collaboration in Multi-Modal Virtual Worlds: Comparing Touch, Text, Voice and Video'. In R. Schroeder (ed.). *The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments*. London: Springer Verlag, 172-187.

Sanchez, C.D. (2010). 'My Second Life as a Cyber Border Crosser'. *Journal of Virtual Worlds Research*, 2: 5. Retrieved, April 2011, from http://journals.tdl.org/jvwr/article/view/831/722.

Santos, B. de Sousa (1994). 'Modernidade, Identidade e a Cultura de Fronteira' ['Modernity, Identity, and the Boarder Culture']. In B. de Sousa Santos. *Pela Mão de Alice – O Social e o Político na Pós-Modernidade* [*By Alice's Hand – The Social and The Political in Postmodernity*]. Porto: Edições Afrontamento, 119-137.

Schechner, R. (1985). *Between Theatre and Anthropology*. Philadelphia: University of Pennsylvania Press.

Schildkroupt, E. (2001). 'Body Art as Visual Language'. *Anthro Notes*, Winter 2001, 1-8. Retrieved, March, 2011, from http://www.anthro.amh.org.

Schmitz, J. (1997) 'Structural Relations, Electronic Media, and Social Change: The Public Electronic Network and the Homeless'. In S.G. Jones (ed.). *Virtual Culture: Identity and Communication in Cyberspace.* London: Sage, 80-101.

Schroeder, R. (1996). *Possible Worlds: The Social Dynamic of Virtual Reality Technology.* Amsterdam: Aksant Academic Publishers.

Schroeder, R. (2002). 'Social Interaction in Virtual Environments: Key Issues, Common Themes, and a Framework for Research'. In R. Schroeder (ed.). *The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments*. London: Springer Verlag, 1-18.

Schroeder, R. (2006). 'Being There Together and the Future of Connected Presence'. *Presence*, 15: 4: 438-454.

Schroeder, R. (2008). 'Defining Virtual Worlds and Virtual Environments'. *Journal of Virtual Worlds Research*, 1: 1. Retrieved, September 2010, from http://journals.tdl.org/jvwr/article/view/294/248.

Schroeder, R. (2011). *Being There Together: Social Interaction in Shared Virtual Environments*. Oxford and New York: Oxford University Press.

Schroeder, R. and A.S. Axelsson (eds.) (2006). *Avatars at Work and Play: Collaboration and Interaction in Shared Virtual Environments*. London: Springer.

Schuurink, E.L. and A. Toet (2010). 'Effects of Third Person Perspective on Affective Appraisal and Engagement: Findings from *Second Life*'. *Simulation and Gaming*, 41: 5, 724-742.

Seamon, D. (1979). *A Geography of the Lifeworld: Movement, Rest and Encounter*. New York: St. Martin's Press.

Sheridan, T.B. (1992). 'Musings on Telepresence and Virtual Presence'. *Presence: Teleoperators and Virtual Environments*, 1: 1, 120-125.

Sherman, K.M. (2011). 'An Imagined Community of Avatars? A Theoretical Interrogation of *Second Life™* as Nation through the Lens of Benedict Anderson's Imagined Communities'. In A. Ensslin and E. Muse (eds.), *Creating Second Lives: Community, Identity, and Spatiality as Constructions of the Virtual.* London and New York: Routledge, 32-53.

Shilling, C. (2005). *The Body in Culture, Technology and Society*. London, Thousand Oaks, New Delhi: Sage.

Short, J., E. Williams, and B. Christie (1976). *The Social Psychology of Telecommunications*. London: John Wiley.

Short, S. (2005). *Cyborg Cinema and Contemporary Subjectivity*. New York: Palgrave Macmillan.

Simmel, G. (1982). *The Philosophy of Money*. Boston: Routledge & Kegan Paul [1978].

Simmel, G. (1991). 'Money in Modern Culture'. *Theory, Culture & Society*, 8: 3, 17-31.

Sixma, T. (2009). 'The Gorean Community in *Second Life*: Rules of Sexual Inspired Role-Play'. *Journal of Virtual Worlds Research*, 1: 3. Retrieved, June 2011, from http://journals.tdl.org/jvwr/article/view/330/436.

Slater, D. (2002). 'Social Relationships and Identity Online and Offline'. L. Lievrouw and S. Livingstone (eds.). *Handbook of New Media: Social Shaping and Consequences of ICTs*. London: Sage, 533-546.

Smith, A. (2011). 'Why Americans Use Social Media: Social Networking Sites Are Appealing as a Way to Maintain Contact with Close Ties and Reconnect with Old Friends'. *Pew Internet Project Report*, retrieved, June 2012, from www.pewinternet.org/Reports/2011/Why-Americans-Use-SocialMedia.aspx.

Smith, A.D. (1991). *National Identity*. London: Penguin.

Smith, J. (2010). 'Trusting the Avatar'. *Games and Culture*, 5: 3, 298-313.

Smith, L. (2006). *The Uses of Heritage*. London and New York: Routledge.

Social Research Foundation (2008). '2008 *Second Life* Survey'. Retrieved, March 2009, from www.socialresearchfoundation.org/report/index_files/annual-survey.pdf.

Soja, E.W. (1996). *Thirdspace: Journeys to Los Angeles and Other Real-and-Imagined Places*.Cambridge, Ma. And Oxford: Blackwell Publishers.

Song, F.W. (2009). *Virtual Communities: Bowling Alone, Online Together*. New York: Peter Lang.

Spivak, G. (1993). *Outside in the Teaching Machine*. London: Routledge.

Steinkuehler, C. (2006). 'Massive Multiplayers Online Videogaming as Participation in a Discourse'. *Mind, Culture, and Activity*, 13: 1, 38-52.

Steinkuehler, C.A. and D. Williams (2006). 'Where Everybody Knows Your (Screen) Name: Online Games as "Third Places"'. *Journal of Computer-Mediated Communication,* 11: 4, 885-909.

Stephenson, N. (1993). *Snow Crash*. New York: Bantam Books.

Sternberg, R.J. (1988). *The Nature of Creativity*. Cambridge: Cambridge University Press.

Stets, J.E. and P.J. Burks (2003). 'A Sociological Approach to Self and Identity'. In M.R. Leary and J.P. Tangney (eds.). *Handbook of Self and Identity*. New York: The Guildford Press, 128-152.

Stone, A.R. (1991). 'Will the Real Body Please Stand Up?'. In M. Benedikt (ed.). *Cyberspace: First Steps*. Cambridge, Ma.: MIT Press, 81-118.

Stoup, P. (2008). 'The Development and Failure of Social Norms in *Second Life*'. *Duke Law Journal*, 58: 311-344.

Sturken, M. (2008). 'Memory, Consumerism and Media: Reflections on the Emergence of the Field'. *Memory Studies* 1: 1, 73-78.

Suler, J. (1996). 'The Psychology of Avatars and Graphical Space in Multimedia Chat Communities'. Retrieved, July 2010, from www.usr.rider.edu/~suler/psycyber/psyav.html.

Sutherland, I.E. (1968). 'A Head-mounted Three-dimensional Display". *AFIPS Conference Proceedings*, 33: 1, 757-764. Retrieved, December 2011, from http://delivery.acm.org/10.1145/1480000/1476686/p757-sutherland.pdf?ip=193.136.189.2&acc=ACTIVE%20SERVICE&CFID=64304134&CFTOKEN=21605180&__acm__=1328030104_03ea4d797291baf413fc07c510cfcf8b.

Taylor, T.L. (1999). 'Life in Virtual Worlds: Plural Existence, Multimodalities, and Other Online Research Challenges'. *American Behavioral Scientist*, 4: 3, 436-449.

Taylor, T.L. (2002). 'Living Digitally: Embodiment in Virtual Worlds'. In R. Schroeder (ed.). *The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments*. London: Springer, 40-62.

Taylor, T.L. (2006). *Play between the Worlds: Exploring Online Game Culture*. Cambridge, Ma.: MIT Press.

Thomas, D. (2006). 'A General Inductive Approach for Analyzing Qualitative Evaluation Data'. *American Journal of Evaluation* , 27: 2, 237-246.

Thorseth, M. (2003). 'Introduction'. In M. Thorseth (ed.). *Applied Ethics in Internet Research – Conference Proceedings*. Trondheim: NTNU University Press, vii-xii.

Thurlow, C., L. Lengel, and A. Tomic (2004). *Computer Mediated Communication: Social Interaction and the Internet*. London, Thousand Oaks, New Delhi: Sage.

Tönnies, F. (2001). *Community and Civil Society* (*Gemeinschaft und Gesellschaft*). Cambridge: Cambridge University Press [1887].

Tuan, Y.-F. (2001). *Space and Place*. Minneapolis, London: Minnesota University Press [1977].

Tucker, K.H. (1998). *Anthony Giddens and Modern Social Theory*. London, Thousand Oaks, New Delhi: Sage.

Turkle, S. (1984). *The Second Self: Computer and the Human Spirit*. New York: Simon & Schuster.

Turkle, S. (1995). *Life on the Screen: Identity on the Age of the Internet*. New York: Simon and Schuster.

Turkle, S. (2011). *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books.

Turner, P. and S. Turner (2006). 'Place, Sense of Place, and Presence'. *Presence: Teleoperators and Virtual Environments*, 15:2, 204-217.

Turner, V.W. (1988). *The Anthropology of Performance*. New York: PAJ Publications.

Tygstrup, F. (forthcoming). 'Affective Spaces'. In D. Agostinho, E. Antz, and C. Ferreira (eds.). *Panic and Mourning: The Cultural Work of Trauma*. Berlin and New York: Walter de Gruyter.

van House, N. and E.F. Churchill (2008). 'Technologies of Memory: Key Issues and Critical Perspectives'. *Memory Studies* 1: 3, 295-310.

van Oost, E. (2003). 'Materialized Gender. How Shavers Configure the Users, Femininity and Masculinity'. In N. Oudshoorn and T. Pinch (eds.). *How Users Matter. The Co-construction of Users and Technology*. Cambridge, Ma.: MIT Press, 193-208.

Varajão, J. and L. Morgado (2012). 'Potential of Virtual Worlds for Marketing Tests of Product Prototypes. *The Journal of the Textile Institute*, 103: 9, 960-967.

Veerapen, M. (2011). 'Encountering Oneself and the Other: A Case Study of Identity Formation in *Second Life*'. A. Peachey and M. Childs (eds.). *Reinventing Ourselves: Contemporary Concepts of Identity in Virtual Worlds.* London: Springer, 81-100.

Verhulsdonck, G. and J.F. Morie (2009). 'Virtual Chironomia: Developing Non-verbal Communication Standards in Virtual Worlds'. *Journal of Virtual Worlds Research*, 2: 3. Retrieved, June 2010, from http://journals.tdl.org/jvwr/article/view/657/522.

Vicdan, H. and E. Ulusoy (2008). 'Symbolic and Experiential Consumption of Body in Virtual Worlds: From (Dis)Embodiment to Symembodiment'. *Journal of Virtual Worlds Research*, 1: 2. Retrieved, June 2010, from
http://journals.tdl.org/jvwr/article/view/347/257.

von Borries, F., S.P. Walz and M. Böttger (eds.) (2007). *Space, Time, Play*. Basel, Boston and Berlin: Birkhäuser.

Wajcman, J. (1991). *Feminism Confronts Technology*. University Park (Pennsylvania): Pennsylvania State University Press.

Ward, K. (2001). 'Crossing Cyber Boundaries: Where is the Body Located in the Online Community?'. In N. Watson and S. Cunningham-Burley (eds.). *Reframing the Body*. New York: Palgrave, 189-208.

Weheliye, A. (2002). '"Feenin": Posthuman Voices in Contemporary Black Popular Music'. *Social Text*, 20: 2, 21-47.

Weintraub, J.A. (1997). 'The Theory and Politics of the Public/Private Distinction'. In J.A. Weintraub and K. Kumar (eds.). *Public and Private in Thought and Practice: Perspectives on a Grand Dichotomy*. Chicago: University of Chicago Press, 1-42.

Wellman, B. (1997). 'An Electronic Group is Virtually a Social Network'. In S. Kiesler (ed.). *Culture of the Internet*. Mahwah, NJ: Lawrence Erlbaum, 179-205.

Wellman, B. (1999). *Networks in the Global Village*. Boulder, Co.: Westview Press.

Wellman, B. and K. Hampton (1999). 'Living Networked On and Off Line'. *Contemporary Sociology*, 28: 6, 648-654.

Wellman, B. and M. Gulia (1999). 'Virtual Communities as Communities: Net Surfers Don't Ride Alone'. In P. Kollock and M. Smith (eds.). *Communities in Cyberspace*. London and New York: Routledge, 167-194.

Wiener, N. (1965). *Cybernetics; or, Control and Communication in the Animal and the Machine*. Cambridge (Ma.): MIT Press [1948].

Wiener, N. (1988). *The Human Use of Human Beings: Cybernetics and Society*. Cambridge (Ma.) and New York: Da Capo Press [1950].

Williams, D. (2010). 'The Mapping Principle, and a Research Framework for Virtual Worlds'. *Communication Theory*, 20: 4, 451-470.

Williams, D., N. Martins, M. Consalvo, and J.D. Ivory (2009). 'The Virtual Census: Representations of Gender, Race, and Age in Video Games'. *New Media & Society*, 11: 5, 815-834.

Williams, R. (1993). *Culture and Society 1780-1950*. London: The Hoggarth Press.

Williams, R. (2003). *Television: Technology and Cultural Form*. London and New York: Routledge [1974].

Winnicott, D.W. (1993). 'The Location of Cultural Experience'. In P.L. Rudnytsky (ed.). *Transitional Objects and Potential Spaces: Literary Uses of D.W. Winnicott*. New York: Columbia University Press, 3-12 [1967].

Winnicott, D.W. (1999). *Playing and Reality*. London and New York: Routledge [1971].

Woodwark, J. (1991). 'Reconstructing History with Computer Graphics.' *IEEE Computer Graphics and Applications* 11: 2, 18-20.

Wright, T., E. Boria, and P. Breidenbach (2002). 'Creative Player Actions in FPS Online Video Games: Playing *Counter-Strike*'. *Game Studies*, 2: 2. Retrieved, November 2011, from www.gamestudies.org/0202/wright/.

Wu, T. (1999). 'Application-Centered Internet Analysis'. *Virginia Law Review*, 85: 6, 1163-1204.

Yee, N. (2006a). 'The Demographics, Motivations, and Derived Experiences of Users of Massively Multi-User Online Graphical Environments'. *Presence: Teleoperators and Virtual Environments*, 15, 309-329.

Yee, N. (2006b). 'The Labor of Fun: How Video Games Blur the Boundaries of Work and Play'. *Games and Culture*, 1: 1, 68-71.

Yee, N. and J.N. Bailenson (2007). 'The Proteus Effect: The Effect of Transformed Self-Representation on Behavior'. *Human Communication Research*, 33, 271-290.

Yee, N. and J.N. Bailenson (2009). 'The Difference Between Being and Seeing: The Relative Contribution of Self Perception and Priming to Behavioral Changes via Digital Self-Representation'. *Media Psychology*, 12: 2, 195-209.

Yee, N., J. Ellis, and N. Ducheneaut (2009). 'The Tyranny of Embodiment'. *Artifact*, 2, 1-6.

Yee, N., J.N. Bailenson, and N. Ducheneaut (2009). 'The Proteus Effect: Implications of Transformed Digital Self-Representation on Online and Offline Behavior', *Communication Research*, 36: 2, 285-312.

Yee, N., J.N. Bailenson, M.Urbanek, F.Chang, and D. Merget (2007). 'The Unbearable Likeness of Being Digital – The Persistence of Nonverbal Social Norms in Online Virtual Environments'. *Cyberpsychology and Behavior*, 10, 115-121.

Zelizer, V.A. (2011). *Economic Lives: How Culture Shapes the Economy*. Princeton: Princeton University Press.

Zickuhr, K. and M. Madden (2012). 'Older Adults and Internet Use : For the First Time, Half of Adults Ages 65 and Older Are Online'. *Pew Internet Project Report*, retrieved, June 2012, from
http://pewinternet.org/~/media//Files/Reports/2012/PIP_Older_adults_and_internet_use.pdf.

Zylinska, J. (ed.) (2002). *The Cyborg Experiments: The Extensions of the Body in the Media Age*. New York: Continuum.

FILMOGRAPHY

Wachowski, L. and A. Wachowski (1999). *The Matrix*. Warner Bros. Pictures.

Wachowski, L. and A. Wachowski (2003). *The Matrix Reloaded*. Warner Bros. Pictures.

Wachowski, L. and A. Wachowski (2003). *The Matrix Revolutions*. Warner Bros. Pictures.

COMPLETE SURVEY'S DATA PRESENTATION

DEMOGRAPHY

1 - What is your sex?

Male	396	60%
Female	261	40%
Total	657	100%

2 - What is your nationality?

American Samoa	1	0,2%
Andorra	1	0,2%
Argentina	2	0,3%
Armenia	2	0,3%
Australia	21	3,2%
Austria	4	0,6%
Belarus	1	0,2%
Belgium	12	1,8%
Brazil	9	1,4%
Canada	29	4,4%
Cape Verde	1	0,2%
China	5	0,8%
Colombia	1	0,2%
Croatia	2	0,3%
Denmark	3	0,5%
Estonia	1	0,2%
Finland	1	0,2%
France	99	15,1%
French Polynesia	1	0,2%
Germany	21	3,2%
Greece	1	0,2%
Guadeloupe	1	0,2%
Hungary	1	0,2%
India	1	0,2%
Israel	1	0,2%
Italy	9	1,4%
Malaysia	1	0,2%
Mexico	9	1,4%
Netherlands	23	3,5%
New Zealand	2	0,3%

Norway	5	0,8%
Peru	1	0,2%
Philippines	2	0,3%
Poland	3	0,5%
Portugal	5	0,8%
Romania	1	0,2%
Russia	1	0,2%
Singapore	2	0,3%
South Africa	2	0,3%
Spain	8	1,2%
Sweden	36	5,5%
Switzerland	13	2,0%
Taiwan, Province of China	1	0,2%
Turkey	3	0,5%
United Kingdom	49	7,5%
United States	256	39,0%
Uruguay	2	0,3%
Venezuela	1	0,2%
Total	657	100%

3 - What is your RL[247] age?

	Answers	%
under 18	7	1%
18 – 24	115	18%
25 – 34	202	31%
35 – 44	186	28%
45 – 54	110	17%
55 – 64	35	5%
65 +	2	0,3%
Total	657	100%

4 - What is the highest level of education have you completed?

	Answers	%
Some high school	44	7%
High school grad	87	13%
Some college	162	25%
College grad	157	24%
Post-graduate work	64	10%
Post-graduate degree	143	22%

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[247] RL – Real Life

Total	657	100%

5 - What is your occupation?

	Answers	%
Owner / Proprietor	58	9%
Senior Management	31	5%
Other Management	42	6%
Professional	144	22%
Technical	90	14%
Sales	21	3%
Administrative	40	6%
Other employed	67	10%
Homemaker / Full-time parent	25	4%
Student	87	13%
Retired	12	2%
Not employed	40	6%
Total	657	100%

6 - What is your total annual household income?

	Answers	%
Less than $20,000	112	17%
$20,000 - $34,999	94	14%
$35,000 - $49,999	89	14%
$50,000 - $74,999	98	15%
$75,000 - $99,999	57	9%
$100,000 and more	87	13%
Prefer not to answer	120	18%
Total	657	100%

7 - How long have you had an account in SL?

	Answers	%
1 month or less	169	26%
2-6 months	281	43%
7-12 months	114	17%
1year and a half	44	7%
2 years	15	2%
More than 2 years	34	5%
Total	657	100%

8 - Which account do you have?

	Answers	%
Free	414	63%
Premium	243	37%
Total	657	100%

9 - Did you ever use, or do you currently use any of the following?

	Answers	%
Other Metaverse	84	13%
MMORPG	176	27%
First Personal Shooter	183	28%
3D Chats	67	10%
Instant messenger	541	82%
Chatroom	241	37%
Video games for real money	25	4%
Skill games	296	45%
Casino games	99	15%
Total/respondents	657	100%

10 - How many hours do you invest in SL each week on average?

	Answers	%
01-05 hrs	112	17%
06-10 hrs	134	20%
11-15 hrs	81	12%
16-20 hrs	88	13%
21-25 hrs	77	12%
26-30 hrs	54	8%
31-40 hrs	47	7%
40-50 hrs	29	4%
More than 50 hrs	35	5%
Total	657	100%

11 - How many times each day you log into SL on average?

	Answers	%
1 time	250	38%
2 times	199	30%
3 times or more	208	32%
Total	657	100%

12 - I usually In SL continuously for at least:

	Answers	%
less than 1 hours	70	11%
1 to 3 hours	380	58%
3 to 5 hours	141	22%
more than 5 hours	66	10%
Total	657	100%

13 - How do you log into SL more frequently?

	Answers	%
Alone	529	81%
With my RL partner	32	5%
With my virtual/online partner	62	9%
With my RL friends	24	4%
With a family member	10	2%
Total	657	100%

14 - Why do you participate in SL?

	Answers	%
Because it is fun or exciting	345	53%
Because I get bored	65	10%
Because I get relax	148	23%
Because it is a good way to get to know different people from around the world	306	47%
Because I can say and do things I cannot in my real life	144	22%
Because it is a permanent virtual community and I can go there when I want	189	29%
Because I like the anonymity	41	6%
Because it's a world where I can create and build	320	49%
Total	657	100%

15 - Your avatar's personality is:

	Answers	%
Similar to yours	427	65%
The way you want to be	143	22%
Nothing like you	87	13%
Total	657	100%

16 - I have purchased land or building(s).

	Answers	%
Never	351	53%
Sometimes	121	18%
Often	72	11%
Always	73	11%
N/A	40	6%
Total	657	100%

17 - I have rented land or building(s).

	Answers	%
Never	405	62%
Sometimes	106	16%
Often	49	8%
Always	55	8%
N/A	42	6%
Total	657	100%

18 - I sell products or services "door-to-door".

	Answers	%
Never	542	83%
Sometimes	47	7%
Often	10	2%
Always	11	2%
N/A	47	7%
Total	657	100%

19 - I sell products or services from a shop.

	Answers	%
Never	450	69%
Sometimes	63	10%
Often	35	5%
Always	64	10%
N/A	45	7%
Total	657	100%

20 - I provide education or training.

	Answers	%
Never	408	62%
Sometimes	140	21%
Often	49	8%
Always	16	2%
N/A	44	7%
Total	657	100%

21 - I provide health service(s).

	Answers	%
Never	565	86%
Sometimes	27	4%
Often	5	0,8%
Always	2	0,3%
N/A	58	9%
Total	657	100%

22 - I receive therapy or counseling.

	Answers	%
Never	558	85%
Sometimes	39	6%
Often	2	0,3%
Always	4	0,6%
N/A	54	8%
Total	657	100%

23 - I advertise or market a real life product or service.

	Answers	%
Never	520	79%
Sometimes	46	7%
Often	27	4%
Always	15	2%
N/A	49	8%
Total	657	100%

24 - I promote art or culture.

	Answers	%
Never	362	55%
Sometimes	142	22%

	Answers	%
Often	73	11%
Always	36	6%
N/A	44	7%
Total	657	100%

25 - I take classes to learn something.

	Answers	%
Never	300	46%
Sometimes	242	37%
Often	68	10%
Always	11	2%
N/A	36	6%
Total	657	100%

26 - I practice cybersex.

	Answers	%
Never	343	52%
Sometimes	190	29%
Often	65	10%
Always	24	4%
N/A	35	5%
Total	657	100%

27 - I lead others in groups or activities.

	Answers	%
Never	373	57%
Sometimes	145	22%
Often	78	12%
Always	22	3%
N/A	39	6%
Total	657	100%

28 - I go shopping.

	Answers	%
Never	86	13%
Sometimes	252	38%
Often	202	31%
Always	104	16%
N/A	13	2%

Total	657	100%

29 - I customize my avatar.

	Answers	%
Never	28	4%
Sometimes	243	37%
Often	235	36%
Always	144	22%
N/A	7	1,1%
Total	657	100%

30 - I build or design some product or item.

	Answers	%
Never	209	32%
Sometimes	177	27%
Often	142	22%
Always	99	15%
N/A	30	5%
Total	657	100%

31 - I explore different lands.

	Answers	%
Never	22	3%
Sometimes	144	22%
Often	261	40%
Always	221	34%
N/A	9	1,4%
Total	657	100%

32 - I like to find competitive activities.

	Answers	%
Never	294	45%
Sometimes	236	36%
Often	66	10%
Always	33	5%
N/A	28	4%
Total	657	100%

33 - I provoke damage or disturb others.

	Answers	%
Never	603	92%
Sometimes	21	3%
Often	9	1,4%
Always	2	0,3%
N/A	22	3%
Total	657	100%

34 - I socialize and meet people.

	Answers	%
Never	31	5%
Sometimes	188	29%
Often	227	35%
Always	203	31%
N/A	8	1,2%
Total	657	100%

35 - I actively participate as a member of groups.

	Answers	%
Never	146	22%
Sometimes	230	35%
Often	154	23%
Always	107	16%
N/A	20	3%
Total	657	100%

36 - I participate in activities where I can be the center of attention.

	Answers	%
Never	337	51%
Sometimes	212	32%
Often	49	8%
Always	23	4%
N/A	36	6%
Total	657	100%

37 - I create additional SL accounts.

	Answers	%
Never	429	65%

Sometimes	166	25%
Often	17	3%
Always	14	2%
N/A	31	5%
Total	657	100%

38 - I play with an avatar of my own gender (male/female).

	Answers	%
Never	52	8%
Sometimes	69	11%
Often	71	11%
Always	437	67%
N/A	28	4%
Total	657	100%

39 - I ever tried to exchange Lindens or tried to sell a virtual item with RL money.

	Answers	%
Never	448	68%
Sometimes	87	13%
Often	45	7%
Always	35	5%
N/A	42	6%
Total	657	100%

40 - I gamble at online casinos for real money.

	Answers	%
Never	561	85%
Sometimes	58	9%
Often	9	1,4%
Always	5	0,8%
N/A	24	4%
Total	657	100%

PART 2 – MONEY

41 - How much RL money have you invested in the SL to date?

	Answers	%
$0 to $50	365	56%
$51 to $200	143	22%

$201 to $350	50	8%
Over $350	99	15%
Total	657	100%

42 - Approximately how many Lindens have you earned in SL?

	Answers	%
None	233	36%
L$300 to L$7,000	258	39%
L$7,001 to L$25,000	77	12%
Over L$25,000	89	14%
Total	657	100%

PART 3 – GAMBLE

43 - Do you gamble in SL?

	Answers	%
Yes	131	20%
No (Jump to Section IV)	526	80%
Total	657	100%

44 - Do you prefer to gamble solo or with other online friends?

	Answers	%
By myself	67	51%
With my SL friends	17	13%
Either is fine	47	36%
Total	131	100%

45 - Why do you like to gamble in SL?

	Answers	%
Because it is a good way to make Lindens	79	60%
Because it is a good way to learn and practice for RL casino games	15	12%
Because I want to see my name on the score board table	11	8%
Other	46	35%

	Total	131	100%

46 - I used to gamble in other places, but now I prefer to gamble in SL.

	Answers	%
Strongly Agree	11	8%
Agree	21	16%
Disagree	26	20%
Strongly Disagree	40	31%
Not Sure	33	25%
Total	131	100%

47 - Gambling in SL is just gaming since it is not real money.

	Answers	%
Strongly Agree	12	9%
Agree	54	41%
Disagree	38	29%
Strongly Disagree	19	15%
Not Sure	8	6%
Total	131	100%

48 - I've learned about gambling in SL and I might try real online gambling.

	Answers	%
Strongly Agree	1	1%
Agree	15	112%
Disagree	45	34%
Strongly Disagree	56	43%
Not Sure	14	11%
Total	131	100%

49 - Since I've been gambling in SL, I have started to gamble with RL money.

	Answers	%
Strongly Agree	2	2%
Agree	6	5%
Disagree	32	24%
Strongly Disagree	81	62%

	Answers	%
Not Sure	10	8%
Total	131	100%

50 - I'm a SL power gambler and now I'm sure I could do well with real money.

	Answers	%
Strongly Agree	3	2%
Agree	9	7%
Disagree	34	26%
Strongly Disagree	63	48%
Not Sure	22	17%
Total	131	100%

51 - I do well in SL gambling because I've learned some tricks.

	Answers	%
Strongly Agree	3	2%
Agree	23	18%
Disagree	40	31%
Strongly Disagree	44	34%
Not Sure	21	16%
Total	131	100%

52 - There are certain routines I have that seem to improve my gambling results.

	Answers	%
Strongly Agree	5	4%
Agree	32	24%
Disagree	30	23%
Strongly Disagree	42	32%
Not Sure	22	17%
Total	131	100%

PART 4 – ENGAGEMENT

53 - SL is the only thing I find interesting.

	Answers	%
Never	358	55%
Sometimes	194	30%

	Answers	%
Often	57	9%
Always	18	3%
Not Sure	30	5%
Total	657	100%

54 - I often go to *Second Life* to forget about my real life problems.

	Answers	%
Never	290	44%
Sometimes	265	40%
Often	69	11%
Always	21	3%
Not Sure	12	2%
Total	657	100%

55 - I become restless when I cannot log into SL.

	Answers	%
Never	290	44%
Sometimes	221	34%
Often	98	15%
Always	35	5%
Not Sure	13	2%
Total	657	100%

56 - I think about SL and it is difficult to get focused in other activities.

	Answers	%
Never	322	49%
Sometimes	243	37%
Often	58	9%
Always	21	3%
Not Sure	13	2%
Total	657	100%

57 - The first thing I think about when I wake up is SL

	Answers	%
Never	398	61%
Sometimes	189	29%
Often	40	6%
Always	20	3%
Not Sure	10	2%
Total	657	100%

58 - I can control how much time I spend in SL

	Answers	%
Never	59	9%
Sometimes	126	19%
Often	186	28%
Always	281	43%
Not Sure	5	1%
Total	657	100%

59 - I find myself spending more and more time in SL.

	Answers	%
Never	164	25%
Sometimes	302	46%
Often	136	21%
Always	41	6%
Not Sure	14	2%
Total	657	100%

60 - I have skipped school or work so I can be online in SL

	Answers	%
Never	532	81%
Sometimes	86	13%
Often	18	3%
Always	5	1%
Not Sure	16	2%
Total	657	100%

61 - I have lied to someone in order to be able to connect to SL.

	Answers	%
Never	529	81%
Sometimes	98	15%
Often	13	2%
Always	7	1%
Not Sure	10	2%
Total	657	100%

62 - I feel frustrated and/or depressed when I compare my real life with my second life

	Answers	%

	Answers	%
Never	502	76%
Sometimes	111	17%
Often	23	4%
Always	13	2%
Not Sure	8	1%
Total	657	100%

63 - I remain logged into SL even when I am upset or frustrated with SL and not really enjoying it.

	Answers	%
Never	404	62%
Sometimes	176	27%
Often	43	7%
Always	17	3%
Not Sure	17	3%
Total	657	100%

64 - I feel worried or excited about something that happened or might happen in SL.

	Answers	%
Never	219	33%
Sometimes	272	41%
Often	130	20%
Always	25	4%
Not Sure	11	2%
Total	657	100%

65 - I have lost friends or significant people in my life because they don't understand why I spend time in SL.

	Answers	%
Never	603	92%
Sometimes	28	4%
Often	13	2%
Always	2	0%
Not Sure	11	2%
Total	657	100%

66 - In order to be in SL I eat, sleep and/or bathe less.

	Answers	%
Never	481	73%

Sometimes	120	18%
Often	34	5%
Always	12	2%
Not Sure	10	2%
Total	657	100%

67 - I consider SL definitely better than my real life.

	Answers	%
Never	423	64%
Sometimes	164	25%
Often	40	6%
Always	20	3%
Not Sure	10	2%
Total	657	100%

68 - I lose track of time when I am in SL.

	Answers	%
Never	157	24%
Sometimes	306	47%
Often	121	18%
Always	66	10%
Not Sure	7	1%
Total	657	100%

69 - When I am in SL I get so focused that I forget what is going on around me.

	Answers	%
Strongly agree	243	37%
Agree	276	42%
Neither	97	15%
Disagree	32	5%
Strongly disagree	9	1%
Total	657	100%

PART 5 – PERCEPTUAL

70- In RL I'm good at blocking out external distractions when I'm involved in something (reading, watching TV).

	Answers	%
Strongly agree	168	26%
Agree	332	51%

Neither	97	15%
Disagree	39	6%
Strongly disagree	21	3%
Total	657	100%

71 - When I am in SL It doesn't feel "virtual", it feels real.

	Answers	%
Strongly agree	64	10%
Agree	232	35%
Neither	244	37%
Disagree	106	16%
Strongly disagree	11	2%
Total	657	100%

72 - I react emotionally to the gestures, expressions, and movements of other avatars.

	Answers	%
Strongly agree	62	9%
Agree	318	48%
Neither	184	28%
Disagree	80	12%
Strongly disagree	13	2%
Total	657	100%

73 - It seems that other avatars can actually see me and they know I can see them.

	Answers	%
Strongly agree	66	10%
Agree	285	43%
Neither	154	23%
Disagree	117	18%
Strongly Disagree	35	5%
Total	657	100%

SURVEY'S DATA PRESENTATION

Demographics - RL (real life)	**Gender**	Female	51%
		Male	49%
	Age	18-21	21%
		22-25	13%
		26-30	15%
		31-35	12%
		36-40	13%
		41-50	15%
		51-60	10%
		60+	2%
	Annual Household Income	< $50.000	48%
		$50 - $100.000	36%
		$101 - $250.000	13%
		$251 - $500.000	2%
		> $500.000	1%
	Education Completed	High School	19%
		Certification (e.g. CPA, JD…)	4%
		Some college	33%
		BA or equivalent	24%
		Masters degree	13%
		PhD	3%
		Other	4%
	Country/Region of Residence	USA	47%
		Europe	32%
		Asia/Pacific	8%
		Canada	7%
		South America	3%
		Middle East	0,9%
		Mexico	0,8%
		Africa	0,6%
		Central America	0,3%
Demographics - SL	**How long have you been in SL?**	Over a year	38%
		7-12 months	22%
		Over two years	15%
		3-6 months	11%
		Under 3 months	9%
		Over three years	3%
		Over four years	1%
	Average of	0 to 1 hour	7%

	hours per week spent in SL	2 to 5 hours		26%
		6 to 10 hours		23%
		11 to 15 hours		13%
		16 or more hours		31%
	How important are:	**Fun & Creativity**	Most important	84%
			Somewhat important	15%
			Not important	1%
		Socializing	Most important	62%
			Somewhat important	32%
			Not important	6%
		Running a SL business	Most important	22%
			Somewhat important	34%
			Not important	52%
		Networking with colleagues	Most important	15%
			Somewhat important	36%
			Not important	50%
		Research	Most important	14%
			Somewhat important	20%
			Not important	70%
		Bring my business into SL	Most important	10%
			Somewhat important	35%
			Not important	43%
	Interest in using SL	**Consumer**	Most interested	36%
			Somewhat interested	50%
			Not interested	14%
		Role-play	Most interested	35%
			Somewhat interested	38%
			Not interested	27%
		Training	Most interested	33%
			Somewhat interested	43%
			Not interested	30%
		Employment	Most interested	30%
			Somewhat interested	42%
			Not interested	29%
		Professional	Most interested	27%
			Somewhat interested	43%

		Not interested	24%
	Do you donate virtual money to non profits in *Second Life*?	Yes	49%
		No	51%
	Which types of groups do you belong to in *Second Life*?	Social	73%
		Entertainment	62%
		SL business	43%
		Academic/Education	29%
		Arts & Leisure	29%
		Nonprofit organizations	22%
		Scientific	10%
		RL Company Group	8%
		Other	11%
		None	7%
	How has your use of second life changed the past year?	More	28%
		Same	37%
		Less	35%
	What are you doing more of in SL this year vs last?	Socializing	54%
		Creating	49%
		Shopping	39%
		Running a SL business	23%
		Professional	16%
		Scientific meetings	6%
		Running a RL business in SL	4%
		Other	9%
		None	12%
	What are you doing LESS in *Second Life* this year vs last?	Socializing	29%
		Creating	21%
		Shopping	37%
		Running a SL business	18%
		Professional	19%
		Running a RL business in SL	13%
		Other	10%
	For 2009, do you expect your overall time in *Second Life* to:	Stay about the same	49%
		Increase	28%
		Not sure	14%
		Decrease	9%
		Other	0,5%
Companies	**Do you work for a company interested in SL for:**	None/NA	82%
		Training & Development	10%
		Brand Promotion	7%
		Product Development	6%

		Other	3,0%
Do you use SL for any purpose related to your primary occupation?		Yes	16%
		No	84%
Approximately what portion of the time you spent in *Second Life* so far this year (2008) is related to your primary occupation?		1%-25%	41%
		26%-50%	22%
		51%-75%	15%
		76%-100%	21%
		None	1%
For which of the following activities related to your primary job have you used *Second Life* so far this year (2008)?		Teaching and/or Learning	24%
		Collaborating with others to get work done	18%
		Holding or attending scheduled meetings	17%
		Visualizing information in 3D	14%
		Recruiting or interviewing	7%
		Rehearsing or practicing work activities	7%
		Managing real world systems	5%
		Other	6%
		None	2%
		Don't know	1%
How do you anticipate that the amount of time you spend in SL for reasons related to your primary occupation will change in 2009 compared with 2008?		Increase somewhat	33%
		Remain about the same	30%
		Increase dramatically	17%
		Decrease somewhat	7%
		Decrease dramatically	3%
		Other	1%
		Don't know	10%
Which of the following statements best represents your view of the employment market in *Second Life*?		It is getting harder to find good workers and harder to find good paid work	28%
		It is getting easier to find good workers and harder to find good paid work	15%
		It is getting harder to find good workers and easier to find good paid work	11%
		It is getting easier to find good	3%

		workers and easier to find good paid work	
		Don't know	43%
	If your organization were to hire someone to develop *Second Life* **applications to support training, development, team building or other activities, what kind of skills and abilities would you look for?**	Linden Scripting Language Experience	63%
		Designing & construct complex objects in SL	63%
		Integrate virtual worlds with real world rich-media	57%
		Expertise in instructional design	54%
		Experience with groups dynamics using avatars	52%
		Other virtual reality scripting or programming	32%
		Other	9%
	How would you rate your organization's interest in using SL for education, training or development?	Extremely interested	33%
		Somewhat interested	29%
		Maybe interested	23%
		Not interested	10%
		Not sure	5%
Professional meetings	**Have you attended virtual meetings held by a RL company in SL?**	Yes	23%
		No	77%
	Are you an employee of a company that engages professional speakers for either corporate or association meetings in RL?	Yes	17%
		No	83%
	Are you an employee of a	Yes	8%
		No	92%

	company that held meetings in SL to avoid the cost and time of physical travel?		
	Do you plan to do so in 2009?	Yes, within the next 6 months	7%
		Yes, within the next year	5%
		We have discussed it, but there are no plans at this time	12%
		No	72%
		Other	3%
	Have you hired or considered hiring a professional speaker for a meeting in SL?	Yes	7%
		No	93%
Virtual Worlds	**Which other virtual worlds do you use in addition to SL, if any?**	None	62%
		Active Worlds	3%
		America	1%
		Arabus	1%
		City of Heroes	2%
		Club Penguin	2%
		Entropia	4%
		Eve Online	3%
		Forterra OLIVE	1%
		Gaia	6%
		Habbo	3%
		IMVU	7%
		Kaneva	3%
		Meez	2%
		Multiverse	1%
		Ogogio	0%
		Open Croquet	1%
		Openlifegrid.com	2%
		Qwaq	0%
		Seacrets	0%
		Star Wars Galaxies	2%
		There.com	4%
		Time Warp	0%
		Twinity	2%

		Vastpark	1%
		Vivaty	1%
		vSide	1%
		WebFlock	0%
		Whyville	1%
		World of Warcraft	13%
		Other	11%
Are there other virtual worlds you use more than SL?		Yes	7%
		No	93%

SURVEY QUESTIONS

1- Have you read the pretest notecard and wish to take part in the survey? (Yes/No)

2- Do you own land in *Second Life*? (Yes/No)

3- What is the gender of this avatar? (Male/Female/Transgendered/Other/No Answer)

4- Have you ever change the gender of this avatar? (Yes/No/No Answer)

5- Do you have a second avatar? (Yes/No/No Answer)

6- What is the gender of the second avatar? (Male/Female/Transgendered/Other/No Answer)

7- Is the present avatar your main one? (Yes/No/No Answer)

8- What is your country of residence? (USA/Germany/France/UK/Netherlands/ Spain/Brazil/Canada/Belgium/Italy/Other)

9- What is your gender? (Male/Female/Transgendered/No Answer)

10- What is your current age? (18-25/26-35/36-45/46-55/56+)

11- Approximately how many hours per week do you use the computer for any purpose? (0-10/11-20/21-30/31-40/41+)

12- Approximately how many hours per week do you spend in *Second Life*? (0-10/11-20/21-30/31-40/41+)

13- Approximately how many hours per week do you lay video games? (0-10/11-20/21-30/31-40/41+)

14- Approximately how many hours per week do you play massive multiplayer online games (for example World of Warcraft)? (0-10/11-20/21-30/31-40/41+)

15- Approximately how many hours per week do you use online social spaces (i.e., MMOGs, MUDs, MySpace, etc.)? (0-10/11-20/21-30/31-40/41+)

16- At what age did you stop college/university education? (18-25/26-35/36-45/46-55/56+)

17- What is your current employment status? (Student/Employer/Employee/ Unemployed/Non-Employed/Other)

18- What is your current yearly income? ($0-10,000/$10,001-20,000/$20,001-50,000/$50.0001-75,000/$75,001-100,000/$100,001-150,000/$150,001-200,000/$200,001 or more)

19- How would you rate this survey experience? (Completely satisfied|10 – Completely dissatisfied|0)

20- Are you interested in being contacted for further surveys? (Yes/No/No Answer)

Consent for Participation in the Study 'Second Life: Representation and Remediation of Social Space'

Exit this survey

This survey requests your consent for participation in a study about the virtual world Second Life. It asks you to agree to take part in this research and to allow the researcher to use your comments to enhance understanding of the topic.

This questionnaire asks for your preferences about whether to remain anonymous or to allow the researcher to name you and to quote you directly. It also asks you to indicate your preferences for use of additional information shared or generated in the interview.

Participation in this study is completely voluntary. If you decide not to participate there will not be any negative consequences. Please be aware that if you decide to participate, you may stop participating at any time and you may decide not to answer any specific question.

The researcher will maintain the confidentiality of the research records or data.

By submitting this form you are indicating that you have read the description of the study, are over the age of 18, and that you agree to the terms as described.

If you have any questions, or would like a copy of this consent letter, please contact me at csaferreira@sapo.pt.

Thank you in advance for your participation!

Cátia Ferreira

Next

Powered by **SurveyMonkey**
Create your own free online survey now!

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[248] The online version of the informed consent survey is available at:
http://www.surveymonkey.com/s/Y8HYGKB.

Consent for Participation in the Study 'Second Life: Representation and Remediation of Social Space'

1. I agree to participate in a research study. I understand the purpose and nature of this study and I am participating voluntarily. I understand that I can withdraw from the study at any time, without any penalty or consequences.

Yes

No

2. I grant permission for the data generated from this interview to be used in the researcher's publications on this topic.

Yes

No

I grant permission under the following conditions:

3. I grant permission for the interview session to be recorded and saved for purpose of review by the researcher.

Yes

No

4. Indicate your permission for audio or video clips or stills from the interview session to be used in presentations or documentation of this study. Select your preferences below:

5. Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Choose one of the following options:

I agree that a brief synopsis can be included in the documentation of the research, including my Second Life name. I understand that I will be asked to approve this synopsis. I understand that no other personal information will be communicated.

I prefer to remain anonymous in the researcher's publications based on this study.

6. Choose one of the following options:

I grant permission for the researcher to use direct, attributed quotations from my interview.

I grant permission for the researcher to use my contributions to the interview in aggregate or anonymous statements, but I prefer to maintain confidentiality and request that any comments are presented without attribution to me.

7. Please note your preference in terms of information in your Second Life profile.

Any information accessible to the researcher can be used as data.

Only information provided in the interview can be used as data.

Spell out any exceptions or preferences:

8. Do you give the researcher permission to make note of your avatar's appearance and attire, and the interview setting?

Any information accessible to the researcher can be used as data.

Only information provided in the interview can be used as data.

Spell out any exceptions or preferences:

9. Please type your name in the box below to indicate agreement to participate in this study.

| Prev | Done |

QUESTIONS

1- How do you describe your avatar and the relationship between you?
2- How do you classify the role you play in SL?
3- How do you define yours avatar appearance?
4- Do you have close relationships in-world?
5- What does SL mean to you?

ANSWERS[249]

Avatar 1[250]

- **Location:** Bedrock
- **Avatar type:** Human
- **Gender:** Female
- **Appearance:** Good-looking, attractive, tall and skinny, dress style – casual
- **Profile status:** SL – almost empty (only name and date of SL birth); FL – empty

1- My avatar is my representation in SL. I take a lot of time taking care of my appearance; I think it's important to look good.
2- I'm a resident. I have my plot and my home. I enjoy hanging around with friends.
3- I look good. I wish I looked that good in my 1st life…
4- Yes, sure. I have lots of friends.
5- SL is a place where I can meet my friends, some of my SL friends are my 'real' friends, but now we live in different countries. SL is important to keep in touch.

Avatar 2

- **Location:** France Pittoresque

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[249] The answers presented here are not the total transcription of the interviews, but the extracts where the interviewees answer directly to what had been asked.
[250] In order to assure participant's anonymity, instead of naming them it will be used the designation Avatar #.

- **Avatar type:** Human
- **Gender:** Male
- **Appearance:** Regular – looks good but does not use accessories, dress style: casual
- **Profile status:** SL – photo and brief presentation (states that he likes to explore); FL – empty

1- My avie is my character in SL.
2- I'm a designer, I create textures and sell them to fashion and furniture creators.
3- I think I look good.
4- Of course, I have a girlfriend and some close friends.
5- It is my part-time job. It's good to make some money out of it.

Avatar 3

- **Location:** Luskwood
- **Avatar type:** Furry
- **Gender:** Female
- **Appearance:** Looks like a fox with high-knee boots and human clothes. Looks friendly.
- **Profile status:** SL – almost empty (only name and date of SL birth); FL – empty

1- I always wanted to be different and not human LOL. Here I can fulfill this dream.
2- I'm a member of this community. We do a lot of things together. Right now we are planning an event here in the tree.
3- I really like how I look like. It was not easy to put everything together, the majority of clothes I found did not look good over the fur. But I did it!
4- Yes. I know many different people and they are not all furries. I spend a lot of time here but every now and then we meet in 'neutral' locations.
5- SL has an important role in my social life. I really enjoy being able to perform different activities and to meet new people every day, and all in the same place. That's one big advantage of virtual worlds.

Avatar 4

- **Location:** Help Island
- **Avatar type:** Human
- **Gender:** Male
- **Appearance:** newbie – default avatar
- **Profile status:** SL – almost empty (only name and date of SL birth); FL – empty

1- I have just arrived; I don't think I understand him yet…

2- I'm learning how to conduct my avatar, I don't have a role yet, but I want to discover what SL has to offer, I have a lot of friends that are in this virtual world and they convinced me to join.

3- I look just like the other newbies, but I'm starting to edit some details of my appearance and I've bought some new clothes there.

4- As I was telling you I have several friends that use to be here, I will meet them later and they will show me some nice spots to hang out and meet new people.

5- Not that much yet, I'm getting used to my avatar. But my friends told me that this is a great place to be, there are a lots of things to do.

Avatar 5

- **Location:** Ivory Tower Library of Primitives
- **Avatar type:** Furry
- **Gender:** Male
- **Appearance:** Cat looking avatar dressed in man clothes – three pieces suit. The feet are naked.
- **Profile status:** SL – filled with a brief presentation, Avatar 5 is a hairstylist specialized in furries' haircuts. FL - empty

1- My avatar is me in another format. I chose to look different from myself but my second persona is the same as my first one. The main difference is that I always wanted to be a hairdresser in first life but that was not possible and now I can be whoever I want.

2- I'm an active resident. I'm part of a furry community and I sell my products to several furry specialized shops.

3- I don't look the same every day; I change my outfit on a daily basis. Today I chose a suit, but sometimes I'm more relaxed. I think I always look good.

4- I have a family. I'm married and we have several close friends that are like our in-world family.

5- It means the fulfillment of a dream.

Avatar 6

- **Location:** Kuula New Citizens Incorporated
- **Avatar type:** Human
- **Gender:** Female
- **Appearance:** Newbie – default avatar
- **Profile status:** SL – almost empty (only name and date of SL birth); FL – empty

1- I'm learning about it, I tried to edit my appearance but the experience went wrong and the result was so disastrous that I prefer to remain with a newbie-look for a while. I need to learn how to use the editing tools better, that's why I'm here.

2- I'm a newcomer. I arrived few weeks ago and I'm getting used to everything. This spot is nice when you are still learning how to behave here.

3- I know that I don't look good because I've not a customized appearance. I changed my clothes, but I keep looking like a newbie. I'm aware of that.

4- Not yet. I met some people and kept some contacts but until now we haven't met again.

5- A new experience. I'm not a gamer and there is a lot of things to get used to.

Avatar 7

- **Location:** Svarga
- **Avatar type:** Human
- **Gender:** Female
- **Appearance:** Middle-age good-looking female avatar, she has some grey hairs mixed with blonde ones. She is dressed in a formal suit. She wears glasses.
- **Profile status:** SL – brief description of in-world activity (furniture designer), photo and contacts available; FL – empty

1- My avatar is me only in a digital version. It looks a lot like me. I'm a middle-age American woman who had a career as graphic designer, when I got unemployed and I was looking for alternatives, a friend told me about this amazing virtual world and the possibilities it offers to residents. I created my account and during the first months I just explored the surroundings. I came here in the beginning of the hip stage of SL; there were news everywhere about the possibilities of this virtual world. The next step was to become a landowner and have a spot where I can feel at home and create my pieces. I create furniture.

2- I'm a creator. I develop modern furniture pieces and I sell them in the Marketplace and they are also available in some in-world stores. Usually I also accept orders for specific pieces, clients tell me what they want and I develop it. The business goes well, I can't complaint.

3- As I told you already, it is a second me. I totally recognize myself in it. It's my digital skin, because the rest is 'controlled' totally by me just as in first life.

4- Some. I have professional and personal contacts. Nowadays I don't meet new people as I used to, I keep focused in my work.

5- It means the possibility of continuing to be a designer. It changed my life, specially my professional one.

Avatar 8

- **Location:** Limbo Isle of Wyrms
- **Avatar type:** Dragon
- **Gender:** Androgynous
- **Appearance:** look like a dragon, a detailed one and it even spits fire, but its fire does not burn, it is just an effect.
- **Profile status:** SL – brief presentation, it belongs to a fantasy creatures community; FL – some information, Informatics Engineering University student

1- I like to be a dragon, it's different. I program special 'skills' for my avatar. It's really fun.

2- I'm a dragon. I belong to this community and we create several things together.

3- I look good, I think ☺

4- Lots. This is a very active community.

5- A new world and the possibility of practicing programming skills.

<u>Avatar 9</u>

- **Location:** The lost gardens of Apollo
- **Avatar type:** Human
- **Gender:** Female
- **Appearance:** Sexy, red hair, tall and skinny avatar. She is dress in all in red. She is really put together.
- **Profile status:** SL – almost empty (only name and date of SL birth); FL – empty

1- My avie is an improved version of myself. We have some similarities but in my virtual version I'm more attractive and well-dressed.
2- I'm a PR in a popular night club. When I'm not there I usually travel the world and let other avatars know about our club and our events.
3- I'm pretty and attractive. I really like how I look these days. I've tried other version of myself but this is the one I love most.
4- I have lots of friends. I meet a lot of people because of my work, and some of them are really interesting people. When the talk is good I usually keep in touch with them. Is good to know someone to hangout and have a nice talk for a while.
5- Briefly, it means another world, new opportunities.

<u>Avatar 10</u>

- **Location:** Sistine Chapel
- **Avatar type:** Human
- **Gender:** Female
- **Appearance:** Regular – simple avatar, well-dressed in a casual way. Good-looking but in a simple way (common person look)
- **Profile status:** SL – filled out with photo and a brief description; she states to be a teacher in a first life university that has virtual classes in SL. FL – teacher. No photograph available.

1- I like it, we have a close relationship, and we are together for a while. I'm as used to it as my virtual representation that I do not change my appearance much.

2- I use SL for work. I'm a teacher and the majority of the time I spend here is to research for my virtual classes, or to be in classes.

3- I'm a regular person, not too tall and not too skinny. I don't resemble myself but I think I look good without being an extravagant avatar.

4- Yes, but mainly with my students who I know from my first life.

5- It is a great place to work, it offers several good opportunities for learning and educational projects.

Avatar 11

- **Location:** The Shelter
- **Avatar type:** Dinosaur
- **Gender:** Androgynous (blue dinosaur without gender defining elements)
- **Appearance:** Looks like a junior blue dinosaur
- **Profile status:** SL – almost empty (only name and date of SL birth); FL – empty

1- I always loved dinosaurs, now I can be one! But to look friendlier I chose to have a cartoonish appearance.

2- I help newcomers. I like to share some useful information about where to go and what to do. When I'm not here I'm exploring what are the hot spots of the moment to have always fresh recommendations to share.

3- I'm a blue dinosaur. I'm so cute.

4- Yeap, I meet a lot of people here and sometimes we keep in touch.

5- It's my second life.

Avatar 12

- **Location:** S. S. Galaxy
- **Avatar type:** Human
- **Gender:** Female
- **Appearance:** Attractive, blond, tall and slim. Dress style: Sexy and not discrete at all.

- **Profile status:** SL – filled out with photo and a brief description; she states to be a dancer in a night club. FL – empty.

1- She doesn't resemble me; we are almost opposites. But in the first days I spent here I realized that if I wanted to be successful I needed to look better, than I saw different job offers to dancers and I invest some time editing my appearance to get one of that jobs. They pay really well.

2- I'm a dancer. I entertain clients in a night club; it's funny and a different experience.

3- I look good and since I performed the makeover I was never unemployed.

4- Sure. I have a lot of friends and colleagues. In free time we hang around and go shopping together.

5- It is important. I have a second job there, I earn good money and people enjoy being with me.

Avatar 13

- **Location:** The Free Dove
- **Avatar type:** Human, but with wings and tail
- **Gender:** Female
- **Appearance:** Human, with wings and tail. Dress style: sexy, tight and reduced clothes, but with a futuristic look, seem to be made out some type of rubber.
- **Profile status:** SL – almost empty (only name and date of SL birth); FL – empty

1- I like it a lot. It is a freer version of me.

2- I'm a model for a fashion in-world brand. I earn some money and I'm almost always busy.

3- I really like how I look ☺

4- Not that many; I have a couple of close friends. I meet a lot of different people in a daily basis but the majority I never see them again.

5- It's where I work.

Avatar 14

- **Location:** The Wastelands
- **Avatar type:** Human
- **Gender:** Female, but with an almost androgenic look
- **Appearance:** Simple clothes and straight hair. By the looks it is difficult to say if she is a male or a female.
- **Profile status:** SL – almost empty (only name and date of SL birth); FL – empty

1- It doesn't look like me. I made it neutral to experiment not being a girl for a while. I've a feminine avatar, but I don't want to look like a girl and do girl stuff. That's why I'm here.
2- I like role-play games. I live here, and we have some games among us, but I like to go to other playing-locations where nobody knows me.
3- It looks exactly how I wanted!
4- A few, mainly with my neighbors.
5- It is an exploration space.

Avatar 15

- **Location:** The World of Hogwarts
- **Avatar type:** Human
- **Gender:** Female
- **Appearance:** Extremely good looking, looks like a model – tall, pretty, good hair and well dressed with a more classical style
- **Profile status:** Both are filled, in SL is a coffee shop owner, and in real life an event planner. The FL profile has a picture.

1- I like my avie. We are close. She allowed me to explore a new version of myself in this virtual world.
2- I own this coffee shop and I'm here the majority of the time I'm in-world. I have already spent time exploring beautiful places but now I prefer to be here, it's funny to be part of a role-play game environment.
3- I think we look alike. I wanted to make a digital version of myself. The only difference is that she is taller, but everybody here is so tall…

4- Yes, a few. Now I don't 'go out' as much as I used to but I meet a lot of people here. I have some friends that come here, have a coffee and stay around.

5- SL is part of my leisure time. I prefer to be here than watching TV, for example.

APPENDIX F: INFORMAL INTERVIEWS – DATA ANALYSIS

DEMOGRAPHICS

Avatar	Profile	Type	Gender	Appearance
Avatar 1		Human	Female	Very good-looking
Avatar 2		Human	Male	Regular
Avatar 3		Furry	Female	Good-looking
Avatar 4		Human	Male	Newbie
Avatar 5		Furry	Male	Good-looking
Avatar 6		Human	Female	Newbie
Avatar 7		Human	Female	Very good-looking
Avatar 8		Dragon	Androgynous	Good-looking
Avatar 9		Human	Female	Very good-looking
Avatar 10		Human	Female	Regular
Avatar 11		Dinosaur	Androgynous	Good-looking
Avatar 12		Human	Female	Very good-looking
Avatar 13		Human	Female	Very good-looking
Avatar 14		Human	Female	Good-looking
Avatar 15		Human	Female	Very good-looking

PROFILE ANALYSIS

Avatar	Profile	Second Life	First Life
Avatar 1		Empty	Empty
Avatar 2		Fulfilled	Empty
Avatar 3		Empty	Empty
Avatar 4		Empty	Empty
Avatar 5		Fulfilled	Empty
Avatar 6		Empty	Empty
Avatar 7		Fulfilled	Empty
Avatar 8		Fulfilled	Fulfilled

Avatar 9	Empty	Empty
Avatar 10	Fulfilled	Fulfilled
Avatar 11	Empty	Empty
Avatar 12	Fulfilled	Empty
Avatar 13	Empty	Empty
Avatar 14	Empty	Empty
Avatar 15	Fulfilled	Fulfilled

INTERVIEWS MAIN RESULTS:

Avatar	Questions	Avatar meaning	Role-played	Appearance	In-world relationships	SL meaning
Avatar 1		Virtual self-representation	*Flâneur*	Good-looking	Several	Social space
Avatar 2		Character in-world	Creator	Good-looking	Several	Professional space
Avatar 3		Character in-world	Creator	Good-looking	Several	Social space
Avatar 4		Not much, yet	Newbie	Newbie	Several	New experience
Avatar 5		Virtual self-representation	Creator	Good-looking	Several	Land of opportunity
Avatar 6		Not much, yet	Newbie	Newbie	None	New experience
Avatar 7		Virtual self-representation	Creator	Similar to 1st life	Several	Professional space
Avatar 8		Character in-world	Creator	Good-looking	Several	Land of opportunity
Avatar 9		Virtual self-representation	Creator	Very good-looking	Several	Land of opportunity
Avatar 10		Virtual self-representation	Creator	Regular	Several	Professional space
Avatar 11		Character in-world	*Flâneur*	Good-looking	Several	New experience
Avatar 12		Character in-world	Creator	Very good-looking	Several	Professional space
Avatar 13		Virtual self-representation	Creator	Very good-looking	Just a few	Professional space
Avatar 14		Character in-world	*Flâneur*	Good-looking	Just a few	New experience
Avatar 15		Virtual self-representation	Creator	Similar to 1st life	Several	Leisure space