At least nine ways to play: approaching gamer mentalities

Kirsi Pauliina Kallio, Frans Mäyrä & Kirsikka Kaipainen

Abstract

Do digital games and play mean the same things for different people? This article presents the results of a three-year study in which we sought for new ways to approach digital games cultures and playing practices. First, we present the research process in brief and emphasise the importance of merging different kinds of methods and materials in the study of games cultures. Second, we introduce a gaming mentality heuristics that is not dedicated to a certain domain or genre of games, addressing light casual and light social gaming motivations as well as more dedicated ones in a joint framework. Our analysis reveals that, in contrast to common belief, the majority of digital gaming takes place between 'casual relaxing' and 'committed entertaining', where the multiplicity of experiences, feelings, and understandings that people have about their playing and digital games is wide-ranging. Digital gaming is thus found to be a multi-faceted social and cultural phenomenon which can be understood, practiced and used in various ways.

Keywords:

Games cultures, digital games, game research methodology, heuristics, playing mentalities.

At least nine ways to play: approaching gamer mentalities

Introduction

The nature of digital play and games used to be a largely overlooked area of science and scholarship, but recent years have shown steady rise in academic activity in this area. While certain games and groups of people playing them, like massively multiplayer online role-playing games and gamers (MMORPGs), have received a relatively high level of attention, there are still gaps and weaknesses in research that aims to understand the overall role of digital play and games in society, and address people of all kinds and ages (cf. Nieborg & Hermes 2008). There are considerable challenges and dangers of oversimplification ahead when engaging in such an all-encompassing undertaking, but unless we try to investigate the playing practices of old as well as young people, both women and men, those who are eager and dedicated gamers as well as those who are not, we are not going to be able to provide reliable knowledge about games and play.

This article is based on data gathered in a research project that aims to bring together the societal and individual levels of inquiry in game studies and player research. The overall context is interdisciplinary and culturally oriented. This research aims to unravel the multiple roles games play for people in their everyday lives by making use of approaches and traditions from fields such as interactive media and game studies, cultural studies, sociology and human geography. The starting point is similar to that of e.g. Pargman and Jakobsson (2008), who have studied gaming as a particular kind of situated activity. Their approach involved ethnographic observation and interviews of active gamers, and concluded with the realisation that the concept of a 'magic circle', which is based on a clear separation between 'play reality' and 'everyday reality', does not apply. For these gamers, digital play was often a routine activity intertwined with other everyday routines.

The place and nature of digital play requires dedicated attention and theorisation, but like Pargman, Jakobsson and other scholars (e.g. Goffman 1974; Fine 1983; Copier 2005; Nieuwdorp 2005; Stenros, Montola & Mäyrä 2007), we want to point towards the flexible and fluid nature of play experiences, and look in a more detailed manner into the various motivations and attitudes that inform the significance of games for different people. Our work can be characterised as 'socio-cultural study of gamers', and while it can be related to the social and psychological studies of players, as well as to cultural studies into games and their playing as particular kinds of interactive media, our aim has been to produce a decidedly interdisciplinary approach in order to draw a more comprehensive picture of what gaming means for various people.

The study of player motivations has also been the focus of increasing interest. One aspect of this interest has been commercial: it is important for developers and producers of games to understand the attraction and holding power factors of games they intend to market for certain audiences. Another line of approach to the study of player motivations is driven by more fundamental knowledge interests that focus on understanding the cognitive, affective, social and spatial processes that characterise different player and play styles. In many cases, these applied and basic research interests have also crossed roads, as in the case of the classic MUD player type classification presented by Richard Bartle (1996). The attempts to empirically validate

Bartle's 'player types', which included *socialisers, achievers, explorers* and *killers,* have had a mixed reception. However, they have been influential in paving the road for further research.

Nick Yee (2007) has surveyed thousands of MMORPG players and concluded that rather than being mutually exclusive 'types', key motivations like achievement, social and immersive motivations have further sub-divisions and also relate to each other, forming a rich complex of variously interconnected motivational factors. Yee's analysis revealed ten motivational subcomponents for online play, including desire for advancement and power (part of the achievement motivation component), desire for meaningful relationships (part of the social component) and desire to role-play a fictional persona (part of the immersion component). There have been several other published studies that have explored the motivations of e.g. playing children (Ermi, Heliö & Mäyrä 2004), people with different personality types (Hartmann & Klimmt 2006), those who want to 'grief' or bully other players (Foo & Koivisto 2004), and those who cheat in games (Consalvo 2007).

The intention in the present study is to contribute to previous work in the area by developing a model of player mentalities that is not dedicated to a certain domain or genre of games. The model is designed to be inclusive enough to address very light, casual and social gaming motivations and practices as well as those involving dedicated attitudes and heavy playing, and thereby to be useful in directing attention towards certain, often overlooked aspects in game and player studies.

Overall context and methods

Starting points for empirical work and analysis

Our research project *International Study of Games Cultures (InGa)* has been designed to proceed in several phases, making use of both quantitative and qualitative methods, following the idea of triangulation. The idea of approaching lived realities of games cultures from multiple perspectives was adopted to increase the overall reliability of the study which, primarily, was to produce mainly large-scale, comparable information on digital games cultures in Finland, and later elsewhere. But, as it turned out, the study also provided us with plenty of information about the consequences of methodological choices for the study of games, players and gaming practices. Thus, in addition to information about digital play, the results of this study offer a description of a certain research process, hopefully informative and useful for other researchers of digital play and games cultures (see Kallio, Kaipainen & Mäyrä 2007).

Our methods consisted of a nation-wide survey and three sets of interviews (structured interviews, in-depth interviews, focus group interviews). During the research process it was discovered that, among other things, with a subject matter such as digital gaming, a survey can only provide one with knowledge on a general level, and the quantitative results could thus be considered to be merely indicative. This finding stems from the fact that the statistical validity and reliability indicators, be they however sophisticated, cannot free us from considering two things central to socio-culturally oriented studies. First, in a survey the respondents can only speak out in the language of the research in question, i.e. answer the questions posed to them. This is to say that the question form, created by the researcher(s), is inescapably a part of the answering process, thus outlining the results to some extent from the outset (cf. Haldrup & Larsen 2006). Second, statistical analyses are poorly equipped for assessing *how* the respondents have answered. It makes a great difference if the answers are given, for instance, in a careless or

careful, or sarcastic or straightforward manner. This point of view, which has gained plenty of attention in performative and non-representational approaches to research methodology (e.g. Butler 1999; Thrift 2000) for instance, also proved relevant for our study.

Therefore, on the basis of this work, we think that if quantitative methods are used in socioculturally oriented game research, it is best to deepen and strengthen the results in a qualitative study consisting of, e.g., interviews, participant observation, and/or a separately conducted fixed open-ended questionnaire. Moreover, the responses of different kinds of gamers (e.g. casual gamers/hard core gamers), be they attained in a survey or in an interview, should not be equated without careful consideration. We deem this important because the concept of 'digital games' includes a wide-ranging and extensive area of everyday practices and leisure activities, and is thus not always understood, interpreted or referred to in the same way.

The overall arc of this study involved starting points that were focused on identifying the diversity of digital gaming on the level of individuals. However, we soon realised that all these 'different kinds of gamers' hide behind them various practices and mentalities that are also potentially dependent on context and situation. Thus, while our original intention to understand the diversity of games cultures better remained, we turned to look more at how the diversity was realised through the practices of playing and the ways of thinking about games.

Research Process

We started our empirical work by a quantitative pilot study *Everyday Life of Gaming* in autumn 2006, consisting of a grounding pre-study phase and a nation-wide survey that was directed at a sample of 4000 Finns over the age of 15. The data gathered in this survey was then categorised and statistically analysed during the year 2007, and the preliminary results of the study were reported in national and international arenas (Kallio *et al.* 2007; Mäyrä 2006, 2008b).

In the second phase of research, initiated in late 2007, we conducted a qualitative interview study, titled *Meaning Making in Digital Gaming*, with a selected sample of our survey participants. First, *short structured interviews* were conducted in a group of 73 informants, consisting of both committed and casual gamers (defined according to our survey results, see Kallio *et al.* 2007, 83). After a preliminary analysis of these interviews, combined with the quantitative findings, we selected a sub-group of thirty-three digital gamers for *in-depth interviews*. In these interviews, we focused on the gamers' everyday lives in which gaming has a more or less particular place, or a specific function. Third, we conducted two *focus group interviews* which concentrated entirely on digital gaming practices and experiences. These focus groups mostly consisted of committed gamers whose interests were either game-driven and/or socially grounded.

The structured interviews were designed on the basis of our survey to *complete, secure and intensify* the statistical data. Instead, the purpose of the in-depth interviews was to bring out the gamers' individual relationship to gaming and thus to reveal *what gaming means to them*, and *what kinds of gaming mentalities they possess*. Once again, the focus group interviews emphasised the gamers' *sub-cultural associations* and their *understandings about the games themselves*. Hence, the second part of our study was focused on uncovering games cultures from three directions. This article introduces the main results of the first two phases of our work, with an emphasis on qualitative findings. More statistical analysis of our data can be found in an earlier research report (Kallio *et al.* 2007).

The statistical analysis took place in summer 2007, when the quantitative material was first categorised and thematised by using SPSS 14.0. for Windows program. Next, the descriptive and

inferential statistics were combined and interpreted in reference to our understanding of games cultures and digital gaming, following the general guidelines of applied statistics methodology. In this process, we brought the results together with our earlier findings and understandings of digital gaming and examined them critically (see Ermi & Mäyrä 2007; Mäyrä 2008a; cf. Jasper 2004). The possibility of application for the purposes of a wider, international study was also taken into account in designing the statistical analysis, so that it would provide us with methods and tools for later use (for more information on the next phase of the research, see Mäyrä 2008b).

When the quantitative analysis was completed and the report of the preliminary results published (Kallio *et al.* 2007), we started the process of gathering qualitative data. The structured and in-depth interviews were conducted by telephone. The focus group interviews, in which a couple of our game research group members also participated to facilitate and direct the discussion, were carried out in our Game Research Lab. The categorisation and thematisation of the data was accomplished concurrently, which made it possible to direct the interviews during the process, so that the three rounds complemented each other.

The method followed in the qualitative analysis of interview materials was a form of content analysis, a technique for constructing interpretative frameworks to organise empirical observations. As is typical for these kinds of interpretative processes, our analysis also included several recursive rounds and was conducted with the help of analysis methods similar to those used in the 'affinity wall' technique (cf. Beyer & Holzblatt 1997, 23, 202–204; Krippendorff 2003, 89).

In our final analysis, we combined the four empirical materials following the principle of triangulation. This included statistical data (n=804), structured interviews (n=73), transcribed indepth interviews (n=33), and videotaped focus group interviews (n=2x6). The joined analysis of these materials concluded in gaming mentality heuristics and the *Model of Gaming Mentalities: Intensity, Sociability, Games (InSoGa)* which aims at giving shape to the great variety of digital gaming. At the same time, this conceptualisation helped us build a frame of reference for the comparison of games cultures in more a comprehensive, international context. A heuristic should be understood here in relation to its original Greek meaning ('to discover'); a model like ours that is based on informal methods and synthetic human reasoning among rich data is provided as a tool for providing alternative perspectives, and thereby stimulate new discoveries, learning and understanding of its subject matter, i.e. the diverse mentalities organising the field of digital gaming.

Defining Mentalities

Starting points for recognising gaming mentalities

The gaming mentality heuristics that we present in this article is a heuristic tool for approaching and discussing the diversity of gaming and should thus not be understood as an essentialist, static or exclusionary classification. Our study suggests that, like identities in general, one can possess several gaming mentalities which may vary and be emphasised differently across the years, and depending on the gaming situation (cf. Jenkins 1996, 4; Riessman 2003). For one, the mentality you adopt depends on the games you play, who you play with, how much time you have to play, and how often you can play, to mention just a few points. More generally, one's living

environment and cultural context, situation in life, and other practical conditions also shape and change the acquired gaming habits, attitudes and practices.

All in all, in typifying mentalities our aim is *not* to categorise the *gamers* into distinct groups, which is one traditional way of approaching digital gamers e.g. in games design literature (cf. Bateman & Boon 2006; Mulligan & Patrovsky 2003; Salen & Zimmerman 2004; Bartle 1996). Instead, we want to dig deeper into the motivations and practices of gaming and, by so doing, to understand the various reasons people have for playing digital games in different ways (cf. Fullerton 2004, 264-271; Lazzaro 2004; Yee 2007; Järvinen 2008, 99-247; Pargman & Jacobsson 2008). The aim of our research is to extend the scope of player motivation studies and help build a more comprehensive theory of play and players in which digital play is understood to be framed and situated in culturally specific everyday realities.

Soon after starting our study we formed a working hypothesis that a gamer can adopt several gaming mentalities. Furthermore, we proceeded to propose that, when combined, these diverse mentalities form a gamer identity which may be more or less uniform or multidimensional, and involve even elements that appear to be internally conflicted to an external observer. Both of these suppositions gained support during the research process. In the first phase of our research, we also attempted to categorise our informants into 'gamer groups' on a more general level according to their gaming habits and styles. However, as our research went on we gave up this goal as we realised that such gamer categorisations would either become too many or too heterogeneous for any practical purposes. So, in our final analysis we identified and named some key mentalities lying behind common *gaming styles*, and, thus, produced a collection of different player mentalities which may take precedence for the same individuals on different occasions.¹ The following exposition will show in detail how we came to this conclusion.

Building the mentality model

In our introductory analysis, conducted on the basis of the survey, we found that a large spectrum of gamers' meaning making processes can be revealed by examining the intensity and sociability of their gaming against the backdrop of the games they play (see Kallio *et al.* 2007). The statistical analysis suggested that our informants could be divided into three groups according to the intensity and sociability of their gaming; namely *committed gamers* (play frequently and/or long session and/or are socially attached to digital gamer communities), *casual gamers* (play occasionally and/or short session and/or alone and/or are not engrossed in the gaming situation), and *gaming companions* (play with children and/or mates and/or spouse for accompaniment) (Figure 1). There were some respondents who could be placed in more than one of these categories, but in general it was possible to categorise the gamers according to this division.

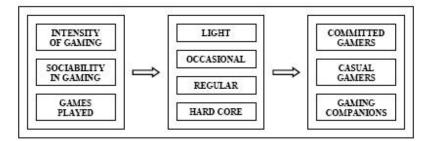


Figure 1: The first approximation of gaming mentalities: gamer classification.

However, once we started to define the indicators of these three components in the qualitative phase of our study more precisely we found that the gamer groups appeared to be more or less diversiform. We realised that both the sociability and the intensity of gaming can take many forms, and that the games/game devices are perceived according to the context. For instance, whereas to some gamers sociability means gaming together in the same room, to others it stands for sharing experiences outside of the gaming situation. In fact, it appeared that gamers belonging to the latter group could actually *prefer* playing alone, both physically and virtually, even though they stated that gaming does not make any sense unless you can share it. A similar example was offered by the respondents who played the most regularly. Contrary to our initial expectations, not all regular and active players could be characterised as 'committed gamers' as many of them played *Solitaire* and other easy and free-of-charge games in between their duties or just to pass the time. Hence, it was at this point that we decided to move from *gamer categorisation* towards *gaming heuristics* by breaking up our components of analysis and interpreting them in more detail (Figure 2).

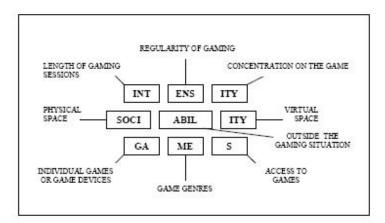


Figure 2 Re-defining the components of gaming mentalities.

After completing the structured and in-depth interviews and moving on to focus group interviews (which concentrated more on game-specific questions and thus do not play a major role in the InSoGa model), we were able to put together a model in which all the knowledge we had on gaming mentalities, consisting of nine mentality profiles, was collected (Figure 3). Following this heuristics we created detailed gamer portraits of our informants for further analysis. Such portraits should be considered to be heuristic tools, or constructions that are useful to the degree they help us abstract the observed variety in gaming in an easily understood format. In these portraits, the gamers could be characterised as different kinds of committed gamers, and/or casual gamers, and/or gamer companions, depending on the scope of their gaming. We will now move on to present the model and the key results of our study.

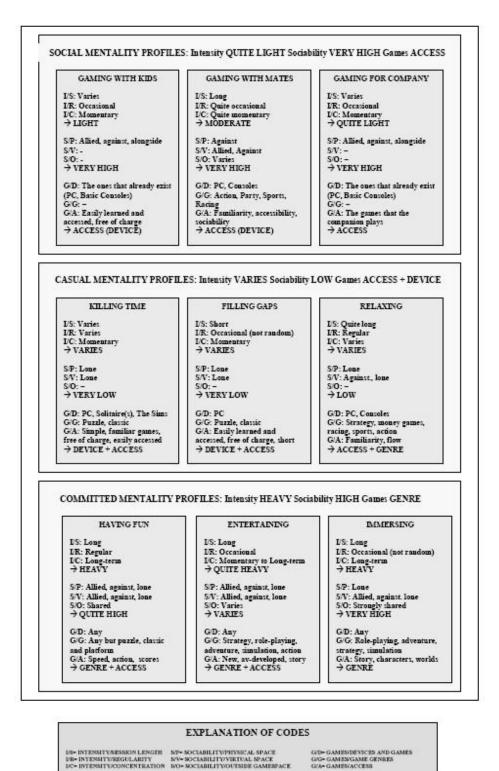


Figure 3: A heuristic model of gaming mentalities: Intensity, Sociability, Games (InSoGa).

Model of Gaming Mentalities: Intensity, Sociability, Games (InSoGa)

The InSoGa-model is composed of three components, each containing three indicators: *intensity*, *sociability* and the *games actually played* (Figure 4). These components have been created in dialogue with our empirical findings and the theoretically informed aims of finding ways to address the socio-cultural diversity among gamers more properly. We understand digital gaming to be a cultural practice that is rapidly becoming a part of everyone's everyday life everywhere in the world, rather than taking place in isolated gamer 'ghettos'. Therefore, we need approaches that generate new ways of recognising different kinds of gamers, gaming habits and practices, and novel ways to address the meanings attached to gaming.

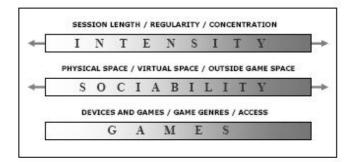


Figure 4: The three components of our mentality heuristics.

In our mentality heuristics, the *intensity* of gaming is approached from three points of view: in terms of the *length of gaming sessions*, the *regularity of gaming*, and the *level of concentration*. By using these three indicators, composed on the basis of our joined data, we have defined gaming mentalities on a continuum that ranges from heavy to light gaming.

The intensity indicators, just like all of our mentality markers, are not weighed in a linear fashion which would concern them equally. They are understood in relation to the other components of our analysis, the sociability of gaming and the games/game devices. This is to say that even if some action games, for instance, do not allow you to do much else when you play (the level of concentration is high), and some strategy or role playing games tend to take plenty of time (gaming sessions are long), no game type necessitates a 'heavy gaming mentality'. According to our findings, games belonging to all of the aforementioned game genres² can also be accessed only occasionally or with little commitment for, e.g., to kill time, relax from work, or just to enjoy good company.

The *sociability* of gaming is also understood to be a continuum in our analysis, ranging from (solely) lone gaming to (entirely) sociable gaming. We define three distinct spaces in which the social aspects of gaming may be mobilised (cf. Williams 2006; Steinkuehler & Williams 2006). Moreover, we have set apart three diverse social roles in the first two of these spaces.

First, gaming can take place in the same *physical space* with other people, where it is possible to play *in co-operation* (i.e. work towards a shared goal), *against each other* (on opposite sides), or *alongside* (simultaneously, taking turns, advising, keeping company). Second, all the aforementioned roles can also be acquired in *virtual* space, as common action taking place *within* the game. Third, the social aspects of gaming may take place *outside* of the actual gaming situation, both physically and virtually. This social aspect refers to sharing ideas, understandings, tips, opinions, successes, and other experiences of games and gaming with other people.

In addition to the preceding, when talking about sociability, it must be noticed that whereas in the 'off-line space' gaming companions are usually friends or relatives, in the international

virtual communities 'X could be anyone', as sociologist Weckroth (1991) aptly puts it. The interplay in digital gaming may thus be practiced amongst people who know each other as well as with total strangers – and anything in between. This, of course, creates more layers to the social component of our research.

Games form the third component of our qualitative analysis. The games-component consists of three separate indicators: *individual games and devices* (including game series, most famously *The Sims*), *game genres* (drawing from our previous studies, see Figure 5), and *accessibility* (the easiness of 'picking up' a game, thus including the aspects of e.g. accessibility, usability, familiarity, and the cost of the game). The last one of these indicators was found to be particularly important as the analysis of our nation-wide survey taught us that it is not possible to make precise distinctions of *what* people play unless you are willing to accept that there are various ways of *defining* a digital game. Whereas some gamers are able to identify their favourite genres and the precise names of the individual games they play, others may simply report of playing 'Xbox' or 'Mario'. Or, when asked about their 'favourite games', people may choose to mention the games they would *like* to play, or the ones they have *seen* being played, not the ones they actually have access to. All of this, of course, stems from the fact that, in our work, we are not merely studying game hobbyists, but also the so-called casual gamers (see e.g. Kuittinen *et al.* 2007 for our earlier research on casual gaming).

In the spirit of social constructionism, and in relation to the current discussions inspired by Actor-network theory (ANT), we have approached games both as *means of gaming* and as *'artefact actors'*, i.e. agents by definition (on ANT, see e.g. Serres & Latour 1995; Law 2002; Koch 2005; Haldrup & Larsen 2006; Häkli 2008). This is to say that, on the one hand, the games played are chosen and used according to one's personal preferences but, on the other hand, the games themselves direct the habits of gaming, thus creating and reproducing certain kinds of gaming mentalities (cf. Giddings 2005; Cypher & Richardson 2006). From this point of view the individual games, certain game genres or series, and the game devices can all be understood to be active shapers of gaming mentalities, different from but related to the aspects of intensity and sociability.

To sum up, in our heuristic model of gaming mentalities, intensity, sociability and games are understood to be multi-dimensional components of digital gaming mentalities consisting of non-exclusionary and non-proportional indicators, presented in detail in Figure 5.

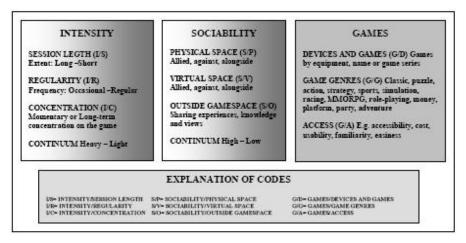


Figure 5: Three components of gaming mentalities, presented in detail with the indicator descriptions and codes.

At Least Nine Reasons to Play

To provide some cultural context, our study was conducted in Finland, which provides it with the frames of a Western, North European society which is sparsely populated but also urban, socially rather stable and technologically advanced. It should be noted that particular ideological emphasis has been strong on information and communication technologies in Finland, and the success of hi-tech companies such as Nokia has often been presented as the engine of national competitiveness and the central key to continuous economic prosperity. On a general level, the cultural and social realities in Finland show signs of the widespread impact of digital technologies in everyday life; e.g. a recent study by Tilastokeskus (2008b) claims that over 3.2 million Finns, meaning c. 83 percent of the population between 16–74 years of age, had used the Internet during the last three months. Another study by the Statistics Finland (Tilastokeskus 2008a) estimates that 99 percents of Finnish households had one or several mobile phones in August 2008. However, the role of digital games continues to divide public opinion, and they have recently been linked to the malaise of young people, particularly after two tragic school shooting incidents within a year in Finland (one in Jokela in November 2007, the other one in Kauhajoki in September 2008). Thus, there were rich, albeit conflicting motivations available for studying the role of digital games and gaming within the context of the Finnish society. Rather than aiming at producing explanations that would approach gaming as a potential social problem, we were interested in just studying how games are, or are not, integrated into the everyday lives of people in Finland.

According to our InSoGa model, on the grounds of the *intensity of* gaming, the *sociability in* gaming, and the *games played*, it is useful to distinguish nine major mentalities as important and common among Finnish digital gamers.³ First, there are three socially grounded mentalities which stress the importance of *doing something together*. Second, there are likewise three casually oriented mentalities in which *games provide something to do*. Third, within the most 'serious' or committed gaming mentalities the rallying point is that *gaming is important in itself*.

It is clear that, depending on the interpreter and the point of view taken, there are always 'borderliners' whose gaming mentalities do not quite fit any of these categories, not even combined (on the problematics of categorisation see Jenkins 1996, 23; Kallio 2006, 72). In our analysis, this foundational dilemma of classification is considered by stating that our conception of 'mentality' is not equated with fixed concepts. Our heuristics should rather be read against the dynamic ebb and flow of attitudes, experiences and practices that gamers acquire and possess. We also want to emphasise that these mentalities are not thought to be necessarily sustained or exclusive, but inter-changeable and overlapping. This, however, does not mean that the adopted mentalities could not be compared or viewed parallel to each other. The following three sections will shed more light on these questions as they open up the idea of the model in detail.

Social mentalities

Besides digital gaming, socially grounded gaming mentalities are common to all gaming and playing activities. As has been pointed out in studies of football and fandom, for instance, the concept of 'sports' cannot be defined without the concept of the 'social' (e.g. Brown 2007; Shields *et al.* 2007). Playing is one way of spending time together and can offer an easy way of getting to know each other better. In other studies, particularly those concerning online games, the social motivation has also been found to be among the most important factors attracting people towards digital play – even to such an extent that to some digital gamers the main thrust

for playing is social (Mortensen 2006; Williams et al. 2006; Cole & Griffiths 2007; cf. Yee, 2003–2007).

In our study, we came across a father who was accustomed to playing rounds on a console game with his son, a grandmother who spent time with her grand-children by helping them with computer games, and a mother who kept up a virtual farm with her children in a free Internet based manager game, to mention just a few. On the other hand, there were young men who enjoyed playing shooter games with their mates, and women who would every now and then accompany their spouse on whatever game he liked to play, just to keep (or have) company. We constructed the profiles *Gaming with Children, Gaming with Mates* and *Gaming for Company* on the basis of such findings.

The games played primarily with a social orientation vary largely. However, there was one thing common to all of them: the games needed to be easily accessible and learned, familiar and inexpensive. In practice, this is to say that the game devices and the games played in a social manner had usually been purchased earlier on for another occasion, or they could be found for free on the home computer, game console, or on the Internet. Thus, as it concerns our 'Games' component, the social mentalities highlight the importance of accessibility, games and game devices, which are all interrelated.

In our study, the intensity and the level of commitment in gaming varied a great deal among the gamers who followed a socially driven gaming mentality, especially regarding session length. Gaming sessions could last for a couple of minutes or some hours, depending on the situation, the game played, and so on. Social gaming did not appear to be regular either, but rather initiated on the spur of the moment, as an opportunity arose. Then again, there were some gamers in our study who could play every day in this manner, which was mostly due to a large amount of free time. In terms of concentration, the informants seemed to concentrate on their gaming more or less fully, but only momentarily. Yet, especially those gamers who liked to spend time with their friends by playing party games would often have other things going on parallel to gaming (drinking, eating, chatting, etc.). Overall, social gaming seemed to take place 'when there is time' and end 'if something else comes up' (source: the structured interviews, combined). Thus it can be generally stated that, on the continuum of intensity, all social gaming mentalities are quite 'light' (non-committed).

The sociability component is, of course, the most important one when considering socially motivated gaming. However, in this case only the first two indicators are relevant in creating the 'social circle' of gaming. For 'social gamers' gaming was not typically a topic shared outside of the playing situation. Social gaming was usually practiced in the same physical space with other gamer(s), but there were also online games in which the virtual aspect could serve as a social arena (most importantly in MMORPGs, a popular example being *World of Warcraft*). We could see the idea of playing together among our informants to be based on any of the three ways (allied, against, alongside), again depending on the situation, the accompaniment, and/or the game equipment and the games played. For instance, physically shared game space was preferred by those playing merely for accompaniment (with family members and friends), and playing against was favoured by those with more 'gamists' attitudes⁴.

People playing primarily with social mentalities did not find it important to talk about games outside of the gaming situation, because for them, social gaming was not motivated by gaming *per se*. This, however, does not mean that they would not share their *social (gaming) experiences* with other people. This aspect forms a 'borderline' between committed and social gamer mentalities. 'Sharing' can refer to many things as people understand, feel and talk about

sharing differently. It is often hard to make a difference between 'sharing gaming experiences' and 'sharing one's life' since the two are usually more or less inseparable. Simply put, if one is interested in a game for social reasons, does it mean that one is committed to the *game* or the *people* one plays with? And, can the gamers be separated from the *characters* that represent them in the game when the gaming situation is considered from the sociability point of view (cf. Giddings 2005)? These questions will be tapped into more specifically as our work continues, thus linking our study to socio-culturally oriented game research. The sociability of gaming has been found to be particularly interesting in this area (see e.g. Taylor 2006).

In terms of contemporaneity, social mentalities are often possessed in tandem with other gaming mentalities. From the points of view of intensity and sociability, some of our 'social gamers' could be considered to be rather committed gamers, as explicated above. Some of them also played other games alone with a committed mentality, and many enjoyed playing *Solitaire* and other easily accessible and usable games, thus also following one of the casual gaming mentalities. In general, if considered as a group of players, social gamers can be divided into two groups as regards their commitment. To some of them gaming did not have any function other than to spend time together, whereas others could be described as multi-mentality gamers, with other interests in digital games, as well.

Casual mentalities

In light of our analysis, like social gaming, casual gaming also takes many forms, both within digital and non-digital gaming activities. In game studies, the concept of 'casuality' (being casual in character, casualness) has been defined and used in many ways, to describe diverse aspects of gaming. The term may refer to the characteristics of the game (e.g. *Solitaire*), the way of playing (e.g. clearing one's mind), the gaming situation (e.g. waiting for the train), the game device (e.g. the mobile phone), or to something else (see e.g. Tams 2006; Waugh 2006; Wallace & Robbins 2006; Kuittinen *et al.* 2007). In our analysis, the quality of being casual is understood as the opposite of commitment. In consequence, the casual gaming mentalities in our model can be focused on to discover on *how digital games are used instrumentally*.

In our analysis, we found that, somewhat unexpectedly, it was not easy to draw the line between different kinds of casual gaming mentalities. In the first phase of our study we divided casual gamers into two groups called 'time spenders' (the people who only played because they did not have other things to do) and 'time users' (people who played when they had nothing else that needed to be done). However, in the qualitative analysis we found that these mentalities were not easily distinguished. Even the respondents themselves had a hard time making a difference between these two aspects of their motivations when asked about them in an interview.

However, we were surprised to hear how many of our informants *could* specify the reasons they had for playing casually. Many of them considered playing as the only way to get one's mind off business, after a day's work or in-between work. On the contrary, some elderly people had realised that playing digital games is one of those things they can include in their daily routines, as some other things have become unattainable due to retirement or health reasons. One grandmother even told us that she plays *Tetris* only when she has something at her heart and she needs time to think about it. As a result, we decided to create the casualness profiles in reference to what people *said*, instead of trying to figure out what it was that they could *not* define.

On these grounds, we found that the most non-committed way of playing digital games was *Killing Time*. The sociability of this mentality was very low overall. The games played include

mostly classic and puzzle games that are easily learned and accessible on any computer, and free of charge. However, when one is killing time, the intensity of gaming varies notably. Some of our 'time killers' played very regularly, even daily, while others just played occasionally (a couple of times a year, for example). Some could keep on playing for hours once they got started, whereas others felt that 15 minutes was a long session for them. The level of concentration in time killing also differed as some people did all kinds of thing as they played (ate, drank, chatted, listened to the radio, watched television, did household chores etc.), whereas others concentrated fully on the game.

Our second casual profile is called *Filling Gaps*. The gamers who were identified having this mentality used games for moving from one task to another – for taking a break from an assignment, or filling an empty moment while waiting, for instance, for a software program to install or the sauna to warm up. Compared to the previous one, it is obvious that within this mentality the *gaming practice has a purpose*, even though the gamers did not think much about the playing activity itself. 'Gap fillers' chose simple, easily accessible games which are quick to start and finish and can be played on a PC at work or at home, and on a mobile phone when travelling. All sociability aspects appeared irrelevant within this mentality as there was really nothing to share in this manner of gaming. The intensity of gaming also appeared to be rather consistent among our informants, as the gaming sessions were short and the regularity of gaming occasional but not random. The concentration on a game in 'gap filling' seems to depend totally on the situation because it is determined by the next task or activity.

In our analysis, the third casual profile, named *Relaxing*, comes close to both of the preceding profiles. The respondents whose gaming attitude fitted this profile best played only when they had nothing else to do, but not for boredom or loneliness. Like 'gap fillers', they also wanted to relax from their routines by playing, but they did not play in-between two tasks. Rather, they would usually play quite regularly at home in the evening or at night, typically alone or with strangers on the Internet (most importantly online poker), for a lengthy period of time. Yet there were exceptions to all of these: some people played at intervals, some reported shorter playing session times, and so on.

The most interesting finding, however, relates to the games that the 'relaxers' play. It seems that if one plays for relaxation, the *most important factor of game selection is familiarity*. This finding suggests that even very complicated and time consuming games can be played with a 'casual mentality' if one is familiar with the game and knows how to use it to serve one's own ends. For instance, having played a lot in a committed manner in a previous phase of life, it is possible to grab a console from the shelf on a hard day's night and play a couple of rounds of *Need for Speed*. This, of course, requires plenty of skills and knowledge which can only be acquired by playing – but, at the same, this manner of playing does not require commitment to gaming at the moment.

All in all, in our analysis, the area of casual gaming appeared to be a particularly interesting one from a socio-cultural game studies point of view. The gamers whose 'gamer portraits' turned out to be strongly (but not always merely) casual do not fit the stereotypes of a digital gamer: quite the contrary. Our 'gap fillers' and 'relaxers' were all working-age people whose relationship with digital games is well summed up in the following quotation: 'Perhaps you could say that if someone else went for a smoke, I'd have a round of *Solitaire*.' (Structured interview.) These 'casual gamists', whose only apparent purpose is to pass or win a game, are not the stereotypical, game-addicted young men who have a lot of free time and nothing else to do, but rather anyone else.

In addition, casual gamers form the majority of all digital gamers in Finland. In our survey, only 8% of the informants regarded themselves as 'game hobbyists', but more than a half of all of the respondents had played some digital games during the past year. And, regardless of the method of counting, *Solitaire* with its variants proved to be the most popular digital game in Finland (for more detailed information, see see Kallio *et al.* 2007). These results give way to searching for 'the other' games cultures there are - if only this time the term refers to the *mainstream* formed by the majority of all digital gamers.

Committed mentalities

Our third set of gaming mentality profiles was constructed to include the attitudes and practices which have mostly to do with the games themselves.⁵ Again, we introduce synthetic abstractions that are created to sum up the key findings among Finnish committed gamers into three principal mentalities, called *Gaming for Fun*, *Immersive Play* and *Gaming for Entertainment*.

The respondents who could not be defined as casual or social gamers, and who were unable to give any other reason for playing than simple 'enjoyment', were defined to 'game for fun'. One reason for the vagueness of verbalising their self-knowledge might be found from the respondents age: they represented, more or less, the youngest age groups who were included in our study (allocation 15+), i.e. young people who have a lot of time and little responsibilities outside of their school work. Thus it was hard for them to separate how 'spending time' differs from 'using time'. This also partly explains why the two prevailing mentalities among our young respondents were *Killing Time* ('time spenders') and *Having Fun* ('time users').

Fun gaming is typically 'heavy', meaning that the gamers play often and for long periods of time without stopping. Gaming sessions may involve social interaction, both physical and virtual, and/or other activities like drinking or small talk. On the other hand, you can easily play for fun also on your own. The variety of games played in this manner is broad, extending from rally games to massively multiplayer online role-playing games, and from online poker to first person shooters. 'Fun gamers' also like to talk about games and gaming outside of the gaming situation. Yet it is very difficult to draw the line between social and game-related reasons for this 'sharing' (see the discussion at the end of the social gaming section).

All in all, the core of this mentality can be reduced to its name: regardless of the social context, the game or the device, *playing is fun*. The most important difference between the fun gamers and the other committed gamers is that they do not identify with the characters or immerse themselves in the story so much on an emotional and experiential level. Rather, they enjoy playing *as gaming*, or sports. Speed, progress, flow, skilfulness, and other such characteristics of a game are more important than the story or the characteristics of the personalised game characters. Hence, from a generational point of view, it seems like a valid hypothesis that in the course of time 'fun gamers', typically young men, will turn into more social (gaming with mates) and/or casual gamers (relaxing), and/or continue to play in a committed manner with a different mentality.

Immersive profile forms the very opposite committed gaming mentality to the previous one. Within this mentality, digital games are not typically approached merely as games that offer an opportunity to spend time together or produce entertainment or 'things to do'. A caricature of an 'immersionist dweller'⁶ is one of a fantasy-driven hobbyist who swears by the name of a genre, game series, guild or team, or all of them. Thus, sharing game worlds with other gamers and gamer communities is the salt and pepper of immersive play. The 'magic circles', which define the intensive spaces which players with immersive profile prefer, are formed of and by the

personalised characters, distinctive virtual game environments, and detailed storylines. In an earlier study of player immersion, it was found that complex, story-driven action adventure games and role-playing games were most likely to lead players to report high levels of overall gameplay immersion (Ermi & Mäyrä 2007). Some of the gamers belonging to this profile also provide contents and new structures to the games, and in this way participate even more fully in the social and virtual production of the game space. This aspect is an important element for the construction of agency and participation in digital games cultures (Mäyrä 2008a, 19–29, 111–13).

The importance of sharing the gaming situation itself in immersive play varies. For some 'immersionists' the game is a place to meet friends, for others it is a personal hideaway from the everyday routines and environments. Generalised from our findings, it could be stated that the older the gamer, the more private and personal the gaming situation was. For younger players the sociability of the game situation (shared with friends, family members or virtual acquaintances) was also often important.

Games played with the immersive mentality are mostly complex and extensive games where it is possible to put one's soul into it, e.g. role playing games (e.g. *The Elder Scrolls IV: Oblivion*), MMORPGs (e.g. *World of Warcraft*), action adventure games (e.g. *Grand Theft Auto III, Half Life*, and *Halo* series), simulation games (e.g. *The Sims*), strategy games (e.g. *Civilization*), and so on. It is important that the characters, the plot and the game world are original, detailed, and 'fluid' so that different kinds of playing styles can be applied to them. Game sessions are typically long, and the regularity of gaming is either very intense or goes at intervals. The 'immersionists' can play for a weekend or a week every now and then when there is time to 'get immersed', but they can play every day just as well if it suits their schedule. The level of concentration in this 'living in another world' is very high, and sometimes it is difficult to draw the line between the game space and the non-game space. This tendency appears to be growing, particularly as both the cultures and technologies of gaming are becoming increasingly pervasive in the society (see Montola 2007; Stenros *et al.* 2007).

The last committed gaming profile, *Gaming for Entertainment*, brings together some elements from both of the previous mentalities. Within this mentality, games can be paralleled with movies, music, and other audio-visual media and entertainment. Games are consumed as media rather than played as sports (cf. *Gaming for Fun*). The sociability level of entertainment gaming is something between fun gaming and immersing, ranging from lone playing to large-scale sharing. Obvious borderlines and overlaps with the social gaming profiles were also noted here: it was not always easy for our informants to say whether the best offerings of the game had to do with the entertainment offered by the *game*, or the pleasures of the social *gaming situation*.

The intensity of entertainment gaming, instead, was often lower than in either of the previous profiles. The 'entertainers' only played when they could reserve time for it, and when there was a good game available. A quick learning curve could also be considered to be an advantage for the game, since it was rewarding to get inside the game quickly. Yet, when there was time to play, entertainment-gaming could also be very concentrated. People playing with this kind of a mentality usually also had other interests and hobbies which they liked to spend their free time on. New, advanced games or a more relaxed period of time from work could act as stimuli for 'getting entertained' by games for them. The games they played included a great variety, ranging from action games to strategy, role-playing and fantasy-driven adventure games. All kinds of devices were used, but most important for them were PCs and certain (new) consoles.

What we found particularly interesting when analysing the committed gaming mentalities was that 'the level of commitment' can be rooted and framed in many different ways. For some people it was primarily the game world that mattered, for others, most important was the situation that involved their gaming practices, just to mention a few. The different aspects of sociability were also present more among those people who play primarily with committed gaming mentalities than perhaps could stereotypically be expected. The casual gaming mentalities, which are the most likely to be considered 'harmless', are the only ones that consistently displayed low sociability. All other mentalities are more or less sociable. This finding alone provides us with a strong argument against the over-simplified views on digital gaming and gamers.

Discussion

In the previous chapters we have introduced a gaming mentality heuristics with nine profiles that we constructed on the basis of our study of digital game playing. The above discussion of the three social, casual and committed mentalities aims at inspiring further studies into such often overlooked distinctions and variety within gamer groups that are often discussed in broad, simplifying terms. There are many more analytical opportunities provided by the indicators presented in Figure 5 than we have room available to discuss in this paper. Nevertheless, our primary aim has been to point out that, on the basis of our data and discussions with Finnish gamers, these indicators and the three components are useful tools for thinking about the diversity among digital game players. With their help, we have been able to elaborate, problematise, and to some extent also respond to our initial research questions 'What kinds of meanings digital gamers?'

There are three key themes that we would like to highlight in the conclusion of this discussion. First, we once again want to stress the great range and variability of meanings attached to digital games that was revealed by our study. Second, we want to emphasise how an important and still largely neglected area of game and player studies is connected to the situatedness and contextuality of gaming. Third, we want to suggest that recognising the layered and overlapping character of gaming mentalities will help people approach digital games, particularly now that gaming is both technologically and socially permeating the everyday spaces and becoming embedded into our everyday lives and cultures (cf. Goffman 1974, on the negotiation of mental frames). Our study will hopefully contribute to the research of games cultures by helping to better identify and discuss the many flexible positions people can take as they approach digital games and play. Rather than adopting typologies that have been based only on player behaviours among one kind of game or player population, our work points out how a rich image of everyday gaming realities can be derived by setting the game types against a fuller picture of the various styles of play.

Moving on in our work, we want to propose a new working hypothesis to guide our study of games cultures on the basis of the preceding analyses. We suggest that it is apparent that the 'mainstream' of digital gaming is not formed by the casual gamers who only play to kill time, nor is it populated by their opposites, the committed game hobbyists. It is rather the fluid continuity of different people who play to relax, socialise, have fun and entertain themselves who form the majority of the digital gaming culture and who provide the backbone for the emerging 'ludic society' at the moment. This view is related to a particular view of the future, based on the

perception of how digital play has already entered the process of becoming an age-independent, everyday practice which probably will not soon differ at all from other commonly accepted and adapted free-time activities.⁷

Conclusions

In this article, we have introduced a new kind of gaming mentality heuristics and described the process by which it was created. By revealing different gaming mentalities, we wanted to show that digital gaming is a multi-faceted social and cultural phenomenon which can be understood, practiced and used in various ways. We want to stress that, concerning our research process, both the results presented here as well as the methodological discoveries gained 'along the road' provided equally important findings. Our aim has been to seek for a new socio-culturally oriented way of approaching digital gaming, and to gather methodological tools which will be useful as a frame of reference in the future phases of collaborative work on comparative game culture studies (cf. Mäyrä 2008b).

Our research has generated two central findings that can be useful in games studies in general. First, as discussed above, we suggest that, in contrast to common belief, the majority of digital gaming takes place between 'casual relaxing' and 'committed entertaining'. These mentalities and practices of play do not fit the stereotype of a gamer who is either addicted to a game (a central concern especially in the case of gambling or money gaming) or totally immersed in it (the gaming mentality most often evoked in the context of fantasy-driven games). Rather, we discovered a reality defined by fluid mentalities and situated practices that become realised *within* the contexts of gamers' common, everyday realities, rather than in opposition to them. When set against the stereotypical gamers in public discussion and media, this blurred reality of everyday and fantasy realities forms the invisible 'other' games culture, or the 'mainstream' of digital gaming depending on the point of view. Perhaps the most serious problem of the current public discussion is that it produces images of gamers and game cultures that make it impossible for most gamers to identify themselves as 'gamers' at all.

Our second proposition deals with the multiplicity of experiences, feelings and understandings that people have about their playing and of digital games in general. Digital games and gaming are often categorised according to the game genres or the games themselves. The gamers are, respectively, classified into fixed roles according to their game preferences and ultimate goals or motivations. We suggest that these categorisations often flatten and sometime even banalise the meanings attached to gaming from both the individual gamers' and the collective gamer communities' viewpoints. Like football, the piano, or a board game, digital games can also be played in many ways depending on the gaming situation and the gamer's life situation in general. Thus, analytical thought does not benefit from massive, generalising and categorical research outcomes. Instead, it calls for studies in which this multiplicity is taken as a starting point.

However, even if these two viewpoints stress the importance of paying attention to the ways digital games are being domesticated and thus 'normalised' as parts of the invisible everyday social realities for large groups of peoples, we do not want to suggest that the research done on the more visible or 'spectacular' games cultures would be of less importance. If anything, we would like to see studies that involve dialectic among both of these dimensions, and thus the field of socio-culturally oriented game studies becoming more diversified and multi-faceted in the near future.

Acknowledgements

We want to thank the Finnish Cultural Foundation for the funding of our research. We also want to thank the Hypermedia Laboratory at the University of Tampere for providing the facilities and inspiring environment for our work.

Endnotes

¹ On the basis of our earlier studies, we suggest that these mentalities can also be used to understand and classify non-digital playing. However, we do not have empirical backup for these assumptions at this point.

 2 With game genres we refer to a set of well-known game types, varieties of which are available in most games media, web sites, and are listed in Figure 5. The classification has been given further empirical basis in our statistical analysis (see Kallio *et al.* 2007, 80). However, we are aware of the fact that individual games belonging to these genres differ from each other in many ways. This fact is taken into consideration in our frame of reference which makes it possible to distinguish genres and individual games separately (Figure 3).

³ It should be noted that all of the results are drawn from a study concerning Finland and Finnish gamers. However, since the game devices used and the games played are mostly internationally well-known ones, and virtual gaming in particular is not nationally bound, these results can be considered to be suggestive also on a broader geographical scale.

⁴ 'Gamist' is a basic player attitude and playing style identified originally by the role-player community through its emphasis on gaming as directed towards winning a challenge, as contrasted to 'dramatist' and 'simulationist' styles which carry with them different priorities (Kim, 1998–2008).

⁵ The informants who could be fitted into one of these profiles are the ones of whom we selected our focus group interviewees.

⁶ On the concept of 'dwelling', see e.g. Harrison (2007) and Thrift (1996). In our analysis, the concept is used to emphasise the spatial aspects of committed gaming which takes place within 'magic circles' and gamer communities.

⁷ Here it should be kept in mind that, due to practical reasons, our research project did not include children and young people below the age of 15. However, the excluded group is included in this notion as the children of today are the adults of tomorrow – the ones whom we expect to adopt the aforementioned mentalities. Yet our analysis does not pursue to make any suggestions about children and young people's future gaming.

References

- Bartle, R. A. (1996). Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs. *The Journal of Virtual Environments*, 1. Online: http://www.brandeis.edu/pubs/jove/HTML/v1/bartle.html.
- Bateman, C. & Boon, R. (2006). 21st Century Game Design. Hingham (MA): Charles River Media.
- Beyer, H., & Holtzblatt, K. (1997). *Contextual Design: A Customer-Centered Approach to Systems Designs*. San Francisco, CA: Morgan Kaufmann.
- Brown, A. (2007). 'Not For Sale'? The destruction and reformation of football communities in the glazer takeover of Manchester United. *Soccer & Society*, 8, 614–635.
- Butler, J. (1999). *Gender Trouble: Feminism and the Subversion of Identity*. 2nd edition. London: Routledge.
- Cole, H. & Griffiths, M. (2007). Social Interactions in Massively Multiplayer Online Role-Playing Gamers. *CyberPsychology & Behavior*, 10, 575–583.
- Consalvo, M. (2007). *Cheating: Gaining Advantage in Videogames*. Cambridge (MA): The MIT Press.
- Copier, M. (2005). Connecting Worlds. Fantasy Role-Playing Games, Ritual Acts and the Magic Circle. In *Proceedings of DiGRA 2005 Conference: Changing Views: Worlds in Play.* Vancouver: Simon Fraser University. Online: http://www.digra.org/dl/db/06278.50594.pdf
- Cypher, M. & I. Richardson (2006). An actor-network approach to games and virtual environments. In *Proceedings of the 2006 international conference on Game research and development*. ACM International Conference Proceeding Series, 223. Online: http://delivery.acm.org/10.1145/1240000/1234382/p254-cypher.pdf.
- Ermi, L., Heliö, S. & Mäyrä, F. (2004). *Pelien voima ja pelaamisen hallinta: lapset ja nuoret pelikulttuurien toimijoina* [The Power of Games and Control of Playing: Children as the Actors of Game Cultures]. English summary. Hypermedia Laboratory Net Series 6. Tampere: Tampereen yliopisto. Online: http://tampub.uta.fi/haekokoversio.php?id=53.
- Ermi, L. & Mäyrä, F. (2007). Fundamental Components of the Gameplay Experience: Analysing Immersion. In S. de Castell and J. Jenson (Eds.), Worlds in Play: International Perspectives on Digital Games Research (pp.37–53). New York: Peter Lang Publishers.
- Fine, G. A. (1983). *Shared Fantasy: Role-Playing Games as Social Worlds*. Chicago: University of Chicago Press.
- Foo, C. Y. & Koivisto, E. (2004). Grief Playing Motivations. In M. Sicart and J. H. Smith (Eds.) Other Players conference proceedings. Copenhagen: Center for Computer Games Research, IT, University of Copenhagen.
- Fullerton, T. (2004). *Game Design Workshop: Designing, Prototyping, and Playtesting Games*. San Francisco (CA): CMP Books.
- Giddings, S. (2005). Playing With Non-Humans: Digital Games as Techno-Cultural Form. In DiGRA 2005 Conference Proceedings. Vancouver, British Columbia, Canada. Online: http://www.digra.org/dl/db/06278.24323.pdf.
- Goffman, E. (1974). *Frame Analysis: An Essay on the Organization of Experience*. New York: Harper & Row.
- Haldrup, M. & Larsen, J. (2006). Material Cultures of Tourism, Leisure Studies, 25, 275-289.
- Harrison, P. (2007). The space between us: opening remarks on the concept of dwelling, *Environment & Planning D: Society & Space*, 25, 625–647.

- Hartmann, T. & Klimmt, C. (2006). The Influence of Personality Factors on Computer Game Choice. In P. Vorderer and B. Jennings (Eds.) *Playing Video Games: Motives, Responses,* and Consequences (p. 115–131). Mahwah (NJ) and London: Lawrence Erlbaum.
- Häkli, J. (2008). Regions, networks and fluidity in the Finnish nation-state. *National Identities*, 10, 5–20.
- Jasper, D. (2004). A Short Introduction to Hermeneutics. Louisville: Westminster John Knox Press.
- Järvinen, A. (2008). *Games Without Frontiers: Theories and Methods for Game Studies and Design*. Acta Electronica Universitatis Tamperensis, 701. Tampere: University of Tampere. Online: http://acta.uta.fi/haekokoversio.php?id=11046.
- Jenkins, R. (1996). Social Identity. London: Routledge.
- Kallio, K.P. (2006). Lasten poliittisuus ja lapsuuden synty: keho lapsuuden rajankäynnin tilana [Children'spolitics and the birth of childhood: a study of private and public spaces in liminal childhoods]. English summary. Acta Universitatis Tamperensis, 1193. Acta Electronica Universitatis Tamperensis, 574. Tampere: Tampereen yliopisto. Online: http://acta.uta.fi/haekokoversio.php?id=10899.
- Kallio, K. P., Kaipainen, K. and Mäyrä, F. (2007). Gaming Nation? Piloting the International Study of Games Cultures in Finland. Hypermedia Laboratory Net Series 14. Tampere: University of Tampere, Hypermedia Laboratory, 2007. Online: http://tampub.uta.fi/haekokoversio.php?id=202.
- Kim, John H. (1998–2008). *The Threefold Model*. Online: http://www.darkshire.net/jhkim/rpg/theory/threefold/.
- Koch, A. (2005). Autopoietic spatial systems: the significance of actor network theory and system theory for the development of a system theoretical approach of space. *Social Geography*, 1, 5-14.
- Krippendorff, K. (2003). *Content Analysis: An Introduction to Its Methodology*. Second Edition. New York: Sage Publications.
- Kuittinen, J., Kultima, A.K., Niemelä, J. & Paavilainen, J. (2007). Casual games discussion. In Proceedings of the 2007 conference on Future Play, 105-112. Toronto, Canada. Online: http://portal.acm.org, doi:10.1145/1328202.1328221.
- Law, J. (2002). Objects and spaces. Theory, Culture & Society. 19, 91-105.

Lazzaro, N. (2004). Why We Play Games: Four Keys to More Emotion Without Story. In *Game Developer's Conference 2004 Proceedings*. Online:

http://www.xeodesign.com/xeodesign_whyweplaygames.pdf.

Montola, M. (2007). Urban Role-Play: The Next Generation of Role-Playing in Urban Space. In F. von Borries, S. P. Walz & M. Böttger (Eds.) *Space Time Play. Computer Games, Architecture and Urbanism: The Next Level* (pp. 266-269). Berlin: Birkhäuser.

Mortensen, T.E. (2006). WoW is the new MUD. Social gaming from text to video, *Games & Culture*, 1, 397–413.

- Mulligan, J., & Patrovsky, B. (2003). *Developing Online Games: An Insider's Guide*. Indianapolis (Ind.): New Riders.
- Mäyrä, F. (2006). Welcome to Mapping the Global Game Cultures: Issues for a Socio-Cultural Study of Games and Players. In M. Santorineos, (Ed.) *Proceedings of Gaming Realities Conference*, Athens, October 6-8, 2006. Athens.
- Mäyrä, F. (2008a). *An Introduction to Game Studies: Games in Culture*. London & New York: SAGE Publications.

- Mäyrä, F. (2008b). Open invitation: mapping global game cultures. Issues for a sociocultural study of games and players. *European Journal of Cultural Studies*, 11, 249–257.
- Nieborg, D. & Hermes, J. (2008). What is game studies anyway? *European Journal of Cultural Studies*, 11, 131–147.
- Nieuwdorp, E. (2005). The Pervasive Interface: Tracing the Magic Circle. In *Proceedings of DiGRA 2005 Conference: Changing Views: Worlds in Play.* Vancouver: Simon Fraser University.
- Pargman, D. and Jakobsson, P. (2008). Do You Believe in Magic? Computer Games in Everyday Life. *European Journal of Cultural Studies*, 11, 225–244. Online: http://ecs.sagepub.com, doi:10.1177/1367549407088335.
- Riessman, C. K. (2003). Performing identities in illness narrative: masculinity and multiple sclerosis. *Qualitative Research*, 3, 5–33.
- Salen, K. and Zimmerman, E. (2004). *Rules of Play: Game Design Fundamentals*. Cambridge (MA): MIT Press.
- Serres, M. and Latour, B. (1995). *Conversations on Science, Culture, and Time*. Ann Arbor: The University of Michigan Press.
- Shields, D., LaVoi, N., Bredemeier, B. and Power, F. (2007). Predictors of poor sportspersonship in youth sports: personal attitudes and social influences. *Journal of Sport & Exercise Psychology*, 29, 747–762.
- Steinkuehler, C. & D. Williams (2006). Where Everybody Knows Your (Screen) Name: Online Games as 'Third Places.' *Journal of Computer-Mediated Communication*, 11. Online: http://jcmc.indiana.edu/vol11/issue4/steinkuehler.html.
- Stenros, J., Montola, M. and Mäyrä, F. (2007). Pervasive Games in Ludic Society. In Proceedings of the 2007 conference on Future Play, 30–37. Toronto, Canada. Online: http://portal.acm.org, doi:10.1145/1328202.1328209.
- Tams, J. (2006). Online Casual Games Q&A, *Minna Magazine*, Summer 2006, 2-5, Online: http://mag.casualconnect.org/MinnaMagazine_Summer2006.pdf.
- Taylor, T.L. (2006). *Play Between Worlds: Exploring Online Game Culture*. Cambridge: MIT Press.
- Thrift, N. (1996). Spatial Formations. London: Sage.
- Thrift, N. (2000). Afterwords, Environment & Planning D: Society & Space, 18, 213–255.
- Tilastokeskus (2008a). Kuluttajabarometri 2008, elokuu. Online:
- http://www.tilastokeskus.fi/til/kbar/2008/08/kbar_2008_08_2008-09-03_kuv_011.html. Tilastokeskus (2008b). *Internetin käyttäjiä enemmän kuin vuosi sitten*. Online:
- http://www.tilastokeskus.fi/til/sutivi/2008/sutivi_2008_2008-08-25_tie_001.html.
- Waugh, E. (2006). *GDC: Casual Games Summit 2006: An Introduction to Casual Games*. Online: http://www.gamasutra.com/features/20060322/waugh_01.shtml.
- Weckroth, K. (1991). X voi olla kuka tahansa [X could be anyone]. Helsinki: Hanki ja jää.
- Wallace, M. and Robbins, B. (Eds.) (2006). *IGDA 2006 Casual Games White Paper*. Online: http://www.igda.org/casual/IGDA_CasualGames_Whitepaper_2006.pdf.
- Williams, D. (2006). A (Brief) Social History of Video Games. In P. Vorderer & B. Jennings (Eds.), *Playing Video Games: Motives, Responses, and Consequences*, 197–212. Mahwah (NJ) and London: Lawrence Erlbaum.
- Williams, D., Duchenaut, N., Xiong, L., Zhang, Y., Yee, Nick & Nickell, E. (2006). From tree house to barracks. The social life of guilds in World of Warcraft. *Games & Culture*, 1, 338– 361.

Yee, N. (2003–2007). *Primary Motivations. From the Daedalus project*. Online: http://www.nickyee.com/daedalus/archives/001612.php?page=2.

Yee, N. (2007). Motivations for Play in Online Games. *CyberPsychology and Behavior*. 9, 772–775. Online: http://www.nickyee.com/pubs/Yee%20-%20Motivations%20(2007).pdf.