

The London School of Economics and Political Science

Everyday Economics

Ideas New and Old from Lay Theories of Economic Life

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Declaration

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Abstract

This project explores divergences and parallels between lay theories of economic life as experienced and developed in two virtual worlds – Final Fantasy XI (FFXI) and Second Life (SL) – and academic theories from sociology and anthropology as well as economics. My intent is not a critique of economics, but a suggestion that other economic sociologies are possible, and to provide points of departure and ideas for such alternative configurations. Exploration of lay theories is organised around four key conceptual categories – value, exchange, money and markets – which were suggested by participants' accounts and economic organisation within each field site. Respondents' theories offer polyphonic, heteroglossic approaches to economic life that sometimes diverge substantially from academic conceptualisations. Lay theories examined in this research emphasising plurality and multiplicity – especially with respect to monies – going so far as to suggest a radical reorganisation of economies based on monies rather than markets. When lay theories from each category are pieced together, they reveal a social imaginary of boundless abundance, strong reliance upon practices as ways of knowing about and theorising economic life, and strange parallels with studies of “primitive” cultures.

This dissertation is based on comparative ethnographies of two disparate virtual worlds, FFXI and SL, which offer different slant-wise views of contemporary capitalist, consumer societies. Final Fantasy XI is a proprietary massively multiplayer online role-playing game (MMORPG) created, owned and maintained by Square-Enix, while Second Life (SL) is a free-form, non-proprietary, three-dimensional virtual world created and maintained in a laissez-faire fashion by Linden Lab. Fieldwork consisted of participant observation, one-on-one interviews, group interviews with FFXI respondents and analysis of fan-made media and corporate texts.

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Chapter I: Introduction

A very large Galka [dog-like humanoid] introduced himself to me today. He explained quite a bit about the game, especially how to level low jobs.

“The point of levelling low jobs is to get items. In San d’Oria [a nearby city] there’s a leather guild. There’s always a need for skins so kill rabbits for the hides. There’s never enough supply. It’s basic economics,” he said. “But don’t sell too many at a time, that’s too much and the price will go down. Just sell a few at a time. Sell beehive chips in Bastok the same way, or silk thread in Windy.”

“Whoa. You must study economics!” Surprising to see detailed analysis, not to mention such a big block of text.

“Nah, I fix tvs,” he replied. “Never went to college.” (Final Fantasy XI field notes, 2004)

During my first week in Final Fantasy XI (FFXI) the Galka – his name was Lame Deer – provided an intense crash course in economics. He spoke of trading and exchange; monetary issue problems; interconnection or geographic isolation of local markets; fair versus free markets; and described how to find and exploit economic opportunities. He broke down FFXI’s virtual economy and explained it using examples, models and theoretical concepts. Lame Deer had the economics of Final Fantasy XI down to a science. He developed more than simple heuristics, he constructed working theories of economic life. At that time, I was pursuing a different project about players’ motivations and experiences in online worlds, but discussions with Lame Deer and others like him – players with sophisticated theories explaining the economies of virtual worlds – raised questions about gaps between lay people’s diverse theories about economic life.

This research can be understood as a series of spelunking expeditions, undertaken with lay

theorist guides, flashlights in hand, ready to illuminate quieter, and sometimes forgotten, corners of economic life. Using comparative ethnographies of two disparate virtual worlds, Final Fantasy XI and Second Life, and four conceptual categories – economic value, exchange, monies and markets – this project explores divergences and parallels between lay theories of economic life as experienced and developed in these worlds and academic theories from sociology and anthropology, and modest forays into economics. My intent is to suggest that other economic sociologies are possible, and to provide examples of ideas to which such alternatives might attend. Lay theorists in virtual worlds, and the economies they interpret, provide concepts, framings and explanatory devices that might inspire other formulations of economic sociology. In bringing lay theories and a diverse range of academic work into dialogue, I hope to introduce polyphonic and heteroglossic (Bakhtin, [1929]1994a) approaches in economic sociology. I am not drawing upon the knowledge of lay theorists to challenge economists, economic sociologists or economic knowledge, but to illustrate how conceptualisations of economic life in both disciplines have become increasingly monological (Bakhtin, [1929]1994a). The performative turn (Callon, 1998) in economic sociology has not widened conceptualisations or enriched framings of economic life. Instead it has bolstered long-standing problems: deterministic styles of writing and analysis; overemphasis on markets as opposed to other categories or concepts; and disproportionate analysis of financial elites. This research attempts to move beyond these stumbling blocks, and present divergent views of economic life.

For lay theorists in this research, economies include practices, places, actors (human and non-human), institutions, and monies, all of which are plural and contain panopolies of forms and possibilities. There was no single economy or set of concepts for participants. Discussion of “the

market” or “the economy” caused confusion and questions about which market or whose economy was in question. Instead, lay theories explored in this project presented a polyphonic (Bakhtin, [1929]1994a) economic landscape in which no single aspect stands as a metonymy for an economy. Though these lay theorists, economic sociologists and economists are analysing and engaging with similar phenomena – economies in everyday life and in virtual worlds – their theoretical subjects, objects, concepts and models vary substantially. Highly regulated financial markets and government institutions, along with the financial and government elites who produce and maintain them, have become the normative focus of economic sociology, while discussion in many areas of the field adopts an outdated mode of writing, addressing itself to “the market” and “the economy”, a monological (Bakhtin, [1929]1994a) perspective. In other subfields of sociology, and in anthropology, such essentialising modes of writing have been largely put aside, but these styles persist with vim and vigour in economic sociology. Geographer Nigel Thrift (2005:28) wrote, “There is no one capitalism or market”, but this insight has yet to make its consequences felt in mainstream economic sociology. Though the field features a range of methodological approaches, there remains a fairly narrow substantive focus: financial elites, firms, markets, regulation and sometimes monies (usually limited to national currencies).

Although Callon (1998) and others working in the new performative economics (Knorr Cetina, 2005; Knorr Cetina and Bruegger, 2002a, 2002b, 2002c, 2005; Aspers, 2007, 2008; MacKenzie et al., 2007; MacKenzie, 2006; Miyazaki, 2007; Callon et al., 2007) are employing Actor-Network-Theory methodologies, instead of producing accounts of actors' practices, such research tends to reproduce framings and models from the discipline of economics, including problematic deterministic language. The partnership of economic sociology – economics and sociology – is

best conducted as an equal one. If sociology is to contribute to this marriage of disciplines, its next (albeit belated) labour should be to offer opportunities for heterodox interpretations, to encourage economic dialogues rather than more highlights from monologues of the past. Through explorations of some lay theorists' pluralistic accounts of economic life, this project aims to provide examples of heteroglossic possibilities.

This recent sympathetic turn toward economic theory (Callon, 1998; Aspers, 2007, 2008; MacKenzie et al., 2007; MacKenzie, 2006; Miyazaki, 2007; Callon et al., 2007; Ingham, 1998, 2004), has also lead to even greater emphasis on markets, at the expense of other economic concepts and categories, and an intense focus on financial elites. Despite the ubiquitousness of the word “market” in political and ideological rhetorics (Carrier, 1997:3; Dilley, 1992:3), markets are not necessarily the primary substantive economic category in contemporary consumer capitalist societies. With the exception of studies of consumption – which are not often classified as economic sociology – sociological interest in other elements of economic life has declined, or other areas have been re-made as studies of markets; the transformation of research on labour and work into studies of employment markets is an instructive example. Though there is a fairly active, if not entirely robust (Dodd, 2005:387), scholarship of money (Dodd, 1994, 2001, 2005a, 2005b, 2007; Fine and Lapavistas, 2000; Hart 2000; Ingham, 1996, 2001, 2004; Zelizer, 1997, 1998a, 1998b, 2000), other concepts – exchange, production, economic value and valuation, labour, accumulation and circulation of goods – though subjects of sustained interest to anthropologists (Besnier, 2004; Bestor, 2004; Bohannon and Bohannon, 1968; Dominguez, 1990; Falola, 1995; Geertz, 1978; Graeber, 2001; Guyer, 1995, 2004; Myers, 2008; Seyfang, 2001a, 2001b, 2003; Strathern, 1988; Weiner, 1976, 1978, 1979, 1980, 1992), geographers (Evans, 2009;

North, 1999, 2005; Ruggeiro and South, 1997; Thomas, 1991; Williams, 1996; Williams et al., 2001), and historians (Bruce-Mitford, 1974; Crawcour, 1963; Freedman, 2008; Ramseyer, 1979; Shively, 1965; Taylor, 1989) – have become peripheral to economic sociology. Some of these marginalised aspects of economic life were central for classical theorists. Marx ([1867]1906, [1849]1933) is synonymous with political economy and the study of labour, class, production and value. For Simmel ([1907]1978), money, accumulation, circulation of goods, modernity and the metropolis came together to form the mature money economy, while exchange – economic, social, political – is the very foundation of social life (Simmel, [1907]1971:45). In spirit, contemporary mainstream economic sociology most closely resembles the structured rigidity of the least sympathetic interpretations of Durkheim's sociology ([1902]1960), but in practice it lacks his broader conceptual range.

Though the four concepts covered in this research – economic value, exchange, monies and markets – do not constitute an economy, they form a coherent economic assemblage for citizens of virtual worlds which also reflects research participants' theories and models. Though it seems ethereal – without labour, production, accumulation, investment, consumption, firms or any number of other concepts – this arrangement is at once strange and familiar. One of the strengths of virtual worlds is that they sometimes present familiar practice in an unfamiliar guise, in this case a version of the service economy, an economic landscape devoid of production and accumulation featuring services and rapid and extensive circulation of goods. Yet respondents' theorising does emphasise some of these subsidiary categories. In bringing lay theorists' economic framings into discussion with the work of economic anthropologists, sociologists and historians, this project works toward building a more rounded economic sociology that is not only concerned with high

finance and, to paraphrase Ritzer (2007), the marketisation of everything.

Since the performative turn, extensive studies of high finance and financial elites have built up a version of economic sociology that increasingly reflects the understandings of those who exercise the greatest control over economies, highlighting activities that occur in markets that may span the globe but are quite closed and narrow. In the case of international currency markets, even those who study the phenomena admit that it is a “second order economy where the ‘goods’ are contracts. . . that circulate rather than being channelled to end consumers” (Knorr Cetina and Prada, 2005:4). This privileging of economic and financial elites (MacKenzie et al., 2007; Callon, 1998; Callon et al., 2007; Abolafia, 1998, 2005; Knorr Cetina, 2005; Miyazaki, 2007) also raises troubling questions of power and complicity. By making these groups a centrepiece of economic sociology, we risk reproducing the perspectives of those with economic power, validating a very specific and constrained framing of economic life.

Studying foreign exchange traders or investment bankers is not presented as the study of economic elites, but rather as the study of economists, which has become a flexible label since Callon (1998) declared “we are all economists now”. This homogenising appellation obscures tremendous variety, from banker-managers who oversee the work of traders to accredited economists sitting on regulatory commissions. Is it meaningful to say “we” are all economists when the framing of economic life implied in that label does not reflect the lived realities of a culturally, ethnically and economically diverse category of “everyone” implied in Callon's use of the word “we”? In studying lay people's accounts of economic life derived from experiences in virtual worlds, I will use the term “lay theorists” but this term should always be understood to refer predominantly

to this particular set of respondents, practices and economic lives. The “we” of lay theory is no less diverse than Callon's “we” who are presumably all economists now, but the former begins with an acknowledgement of differences, while the latter attempts to homogenise.

Finally, contemporary focus on financial elites and highly regulated markets is symptomatic of a historical problem within economic sociology: skipped analytical steps in a disciplinary shift from production-oriented views in classical sociology (Durkheim, [1902]1960; Marx, [1848]1935, [1867]1906, [1849]1933; Weber, [1925]1968) to studies of abstract and heavily regulated financial markets and elites (Callon, 1998; Abolafia, 1998, 2005; Knorr Cetina, 2005; Knorr Cetina and Bruegger, 2002a, 2002b, 2005; MacKenzie, 2006; MacKenzie et al., 2007; Miyazaki, 2007; Callon et al., 2007). This project addresses some of those missed steps by exploring ordinary people's economic theorising through material practices of virtual economies. Considered in isolation, virtual economies and the lay theories they inspire are a novel topic for investigation. However, when these ideas are examined beside the picture of economic life constructed by economic sociology and economics, we learn not only how lay people understand economic life, but also start to realise how much is missing from or undervalued in academic formulations of the same.

If we accept that sociological understandings of economic life have narrowed, becoming more concentrated on financial elites and highly regulated markets, then new respondents, more diverse research settings and a wider conceptualisation of economic life are needed. In promoting heteroglossic, polyphonic accounts of economic life, and venturing into unconventional field sites, this project may not address currently fashionable questions in economic sociology, but it does propose different or neglected vantage points and will demonstrate the importance of moving

beyond comfortable and prestige-conferring work with economic experts. We do not need to interview rock stars to learn about music cultures, and it is equally unnecessary to limit inquiries about economies to their most heavily invested and influential members. Lay people's economic theories offer other configurations of economic categories and economies, but it is very important to be clear about who lay economic theorists are and which lay theorists this research addresses.

Lay People and Lay Theories

In an era defined by self-publishing and the dissemination of information, where data is almost instantly available for those who can connect to it, a lay-expert binary does not resemble increasingly complex modes of knowledge production and circulation. “Lay theory” is a phrase composed of two words; the latter part is fairly clear, the former, less so. Boundaries between experts and laities are increasingly permeable and unclear. These contested borders are highlighted in research on public understandings of science (Collins and Evans, 2002:238-239; Epstein, 1995; Sharpin, 1990; Callon, 1999). The term “lay expert” appears in social studies of technology and science, but Collins and Evans (2002:238) rightly point out that it is an oxymoron, as the definition of a lay person is explicitly “someone who is not an expert” (Collins and Evans, 2002:238-239). Instead, Collins and Evans (2002:240) propose a different category to describe experience-based experts, or “members of the public who have a special technical expertise in virtue of experience that is not recognised by degrees or certificates.” Such a distinction is useful for public understanding of science, but it can obscure differences in economic expertise and status.

Economic spheres contain highly diverse collections of publicly acknowledged expert voices, some

of whom fit the description of experience-based expertise. Experience-based experts described by Collins and Evans (2002:260-275), such as sheep farmers, possess knowledge that is not always perceived as legitimate by accredited authorities – in this case, individuals possessing advanced degrees in natural sciences. A similar situation occurs in Second Life with a very small coterie of wealth entrepreneurs, who believe their virtual business acumen is not recognised or appreciated by business communities in everyday life. However, unlike sheep farmers and natural scientists, who are embroiled in struggles over experience-based versus accredited expertise, SL entrepreneurs are confronted by a hierarchy of experience-based expertise that devalues business skills acquired through virtual businesses while accepting and rewarding other experience-based expertise. There are many experience-based experts in economics whose opinions are legitimated by governments, mass media, lay persons and other experts: investment advisers with an undergraduate degree in geography; economic journalists with a diploma in media studies; or stock market traders who studied anthropology. Within these domains not all experience is equal, and publicly credited experience-based expertise is usually gained through participation in narrow niches. From foreign exchange traders to investment bankers, economic experience-based experts earn their authority through engagement with highly regulated, technologically sophisticated markets. Though financial markets span the globe, their rules are strict and their practices are codified in international and national laws.

Since there is already a very broad and visible spectrum of highly specialised experience-based experts in the economic realm, it is important to be clear about who economic lay persons are and why they are so. In this research, economic lay persons are individuals whose education or professional activities do not confer expert status. Economic lay persons are not actively engaged

in the formulation, constitution, interpretation or governance of regulated markets or legal matters pertaining to economics that are publicly recognised as conferring experience-based expertise. ForEx traders, economic journalists and banking regulators are experienced-based experts. Economics professors, Chartered Accountants and persons holding advanced degrees in economics or financial disciplines conform to traditional requirements for accredited expertise. Sociologists, veterinarians, television repairmen, residents of virtual worlds and particle physicists are economic lay people.

This research deals with a small group of economic lay people: players of Final Fantasy XI and residents of Second Life. These subgroups are no more or less competent in developing theories, no more or less articulate, but they do have the advantage of self-confidence and a body of discrete practices that are situated in small, relatively simple virtual worlds. Economic lay theories explored in this research are firmly rooted in economic practices, and in virtual worlds, users are able to see (sometimes even quantify) the outcomes and consequences of decisions. Particularly in FFXI, users are able to pursue what could be described as evidence-based approaches. The extent to which respondents in both field sites support their theorising by appeals to various forms of evidence – price trends, econometrics, accounts of production techniques, carefully observed economic behaviour – suggests that for some participants economic life is subject to a certain level of evidence-based lay analysis.

Using virtual worlds as research sites provides not so much laboratories as lenses through which economic life becomes tightly focused within a narrower range of practices, institutions and actors. Theories expounded by respondents in this research embrace a range of ontological,

epistemological and political positions, but they are not eccentric or unique. A study of lay economic theories in a north London garage, a Transition Town activist group or amongst indie rock bands would produce a different range of theories and concepts based on the practices of those particular actors, but some themes and ideas would no doubt be shared. The lay theorists in this research cannot stand as a metonymy for all economic lay theorists, nor are their ideas in any way representative of a Callonian “we”. Though I shall use the term “lay theorists” throughout this dissertation it should be understood to refer to research participants as a subgroup whose views reflects one small part of a wider constituency.

The qualities of our economic lay people and the limits of this study are clear, but in what sense do lay persons develop theories? There are multiple definitions of a theory with various subdisciplinary variations. Elements crucial to a theory of planetary motion may not be germane for a theory of turn-taking in conversation. For this research, a practical definition used by psychologists researching lay theories of mind is sufficient:

First, theories involve an ontology – a set of assumptions about the kinds of things that exist. To reason with a theory means treating these often unobservable entities as if they exist. . . . Second, theories propose causal mechanisms – principles that account for regularities in concrete phenomena. . . . Thirdly, theories comprise a set of coherent principles, not merely a list of unrelated causal beliefs. Constructs and principles interrelate in conjunction to explain observable phenomena. (Morris, Ames and Knowles, 1998:144)

Theories are systematic ways of making sense of the world that produce models and concepts that, working in concert, serve as explanations and sometimes as predictive tools. This definition of a theory can apply to both structured thinking of academic theorising and lay theorising.

People draw upon experiences, news stories, urban legends and a broad range of other data sources to construct a coherent definition of the situation (Goffman, 1971:10-11) and to predict or interpret others' behaviour (Morris, Ames and Knowles, 1998:145). It is not only social or natural scientists who theorise, but also ordinary individuals who develop theories of the social and the natural world. Lay people's economic theories are not supported by extensive mathematical models or exhaustive laboratory tests, they are built upon personal accounts, collected knowledge and common sense, and are mediated by cultural restrictions – Islamic finance, for instance (Maurer, 2002, 2005) – popular culture, economics discourses promulgated by mass media and other elements. Though these may not be scientifically robust data sources, lay theories still provide contexts for economic action, for making sense of others' actions, and for developing institutions and organisations. Lay theories of economic life are *terra incognita* for economic sociologists, but when brought into an equal dialogue with scholarly thinking, the heteroglossic conceptualisations of economic life developed by ordinary people have much to offer, from alternative views of exchange that emphasise reproduction over reciprocity, to sophisticated accounts of monetary multiplicity. In this research I have tried to understand and explore lay theories on their own terms. Instead of trying to explain lay theories, this research examines them as explanations in their own right. Lay theorists are not a third estate, but part of an assembly of speakers, which includes academics, all of whom have equal claim to theorising economic life.

On Conceptual Choices

Economic value, exchange, monies and markets form a coherent whole for lay theorists, a collection of concepts that are brought together to produce accounts of economic life. These categories are not important because they resemble a simplified service economy, though the

parallel is intriguing. Rather, these categories are important because they are the common denominators in lay theories of economic life in two disparate virtual worlds. Selecting a balanced set of categories relevant for both lay and academic theories was a design challenge for this project, and was compounded by differences in concerns and practices in FFXI and SL.

Translating apparently similar concepts or ideas from the terms of one world into the terms of the other was sometimes tricky business.

Though economic sociology presents several established conceptual clusters that organise economic life into partial working models without producing an entire economy in miniature, none were compatible with respondents' explanations of economic life. Neither a Marxian combination of labour, value, exchange and production, nor Simmelian ([1907]1978, [1907]1971) formulation of exchange, money, accumulation, consumption and value, were suitable. Though respondents in both field sites discussed labour and production, their accounts of monies and markets were incompatible with political economy. As for a Simmelian perspective, consumption is a crucial theme in Second Life, almost a foundational element of its users' approach to exchange, but not in a way that resembles what Simmel ([unknown]1971) describes. Contemporary economic sociology suggests configurations such as regulation, firms, markets and institutions (Parsons and Smelser, [1956]1984; Aspers, 2007, 2008; Simon, 1979; Smelser, 1963, 1994; Swedberg, 1997, 2005); or networks, markets and economic performativity (Abolafia, 2005; Callon, 1998; Knorr Cetina, 2005; Knorr Cetina and Bruegger, 2002a, 2002b, 2005; Zaloom, 2006; MacKenzie et al., 2007), but these concepts were compatible with respondents' theorising.

Complicating matters even further, Final Fantasy XI and Second Life have quite different economic

structures, institutions and practices. Respondents' approaches to economic instability in each site illustrate problems in translating categories and interpretations. Repeated cycles of inflation and deflation in FFXI have generated protracted discussions about price fluctuations, market manipulation practices and competing ideas of economic value. Players are less perturbed by a perceived absence of regulation by game designers at Square-Enix than by what is understood as economically and socially short-sighted behaviour by their peers. Second Life residents' concerns about economic instability seem quite different. Controversies over the elimination of casinos and banks generated arguments about the extent of Linden Lab's control and ownership of the virtual world and residents' intellectual property rights. These debates focus on unwanted regulation from Linden Lab rather than individual practices, with respondents like IntLibber Brautigam describing the company's actions as "butinskyism" or "meddling", and other residents worrying that Linden Lab spends too much of their limited resources on micro-managing affairs involving few users.

Yet this description presents too simple a picture. Second Life residents are concerned about one another's behaviour too. Virtual banks and casinos have been described as elaborate Ponzi schemes, and bankers, as scam artists. The behaviour of such actors is framed as damaging to social life and economic activity in SL. It was residents' complaints about dishonest practices of specific virtual banks, casinos and their owners that initially prompted Linden Lab to ban these services. Considering concerns of FFXI players on a more abstract level shows that they are not only interested in individual behaviour, but also thinking about regulation, or rather the lack of it, especially concerning profitable play practices perceived as cheating. Players complain that Square-Enix's response to known exploits – bugs in the game's software code that can be manipulated for economic gain – are ineffective or implemented too late. This level of abstraction

obscures important details of participants' explanations of economic problems in their respective worlds and connections between these accounts and respondents' economic theories. For most FFXI players, regulatory lapses or absence are not economic problems, but indications of neglect by Square-Enix. In response to long-standing regulatory negligence, players must concern themselves with self-regulation by establishing, or recovering, standards of acceptable behaviour. In players' views of economic life, individual moral action and decision making are accorded great significance, along with subversion, resistance and play with institutions and economic structures created by Square-Enix's game designers. An interpretation that emphasises Square-Enix's poor regulatory efforts misses the point, from a player's perspective. Second Life residents' discussions tend to work from the other direction. Though many residents are resistant to what is perceived as Linden Labs' interference in a world whose order and institutions are constructed by users, there are just as many residents who strongly identify with Linden Lab and support nearly any action the company takes. The important story for residents is not so much what Linden Lab *does* – who or what they ban – but the ways that these acts are *interpreted, debated and recounted* by other residents.

This brief example illustrates how translations between fieldsites are ambiguous and contingent. In choosing conceptual categories, equal relevance was not always easily achieved. When considering which concepts to include, exchange was a logical place to start. Many economic activities in both research settings could be understood as variations on this theme, from gift-giving to sex work and commerce. An overwhelming majority of FFXI players participate in dense social networks produced and sustained through exchanges of labour and goods. These groups, called linkshells, are the foundations of social organisation in this virtual world. For most players,

distribution and circulation of inalienable goods and other rare items in linkshells is both exciting and agonising. Players talked about earning desirable equipment through linkshell participation, but they also described giving back to a community through helping others develop their characters and the importance of such exchanges in reproducing power, skills and capabilities. Players are emotionally invested in reproductive exchanges that produce stronger characters and social relations. For SL residents, sociability is facilitated and maintained through circulation of copiable fripperies. No gathering of friends in Second Life is complete without an exchange of recently acquired weird objects, barking stuffed dogs or squid-shaped musical hats. Making an avatar that is attractive (according to variable group norms), is among the most important activities in SL because it is a sign of adequate socialisation, “proper” participation, and skillful shopping. Through gifts of appropriate fashion and body parts, residents can discipline and encourage one another. Residents also described gift-giving as a way of initiating social interactions and keeping a gathering from going stale.

Value provides another starting point. The word itself is over-burdened with meanings: moral, economic, aesthetic, sentimental. For respondents in both field sites, economic value was an important category tied to knowledge about item production and generation. For SL residents, valuation was an explanatory and justificatory aspect of shopping. In participant observation, residents followed up shopping trips with lengthy chats amongst friends about what was bought, why and where. These discussions often turned to the item's value, with each speaker providing his own view as to what qualities make an object valuable or valueless. In this milieu, shopping is a test of a resident's aesthetic taste, and of his economic valuation skills. Final Fantasy XI is a game of values, with players constantly comparing and evaluating equipment and items to create a more

powerful and capable character. Players' talk about inflation, deflation and price fluctuation is also about valuation, with conceptual relationships between price, economic value and a generalised form of value. Slippage between values and disentangling economic from other types was a challenge in designing interview questions because there are many instances in each setting where economic value is subsumed in a larger valuating process. Such ambiguity was source of strength rather than an inconvenience, not because it allows greater leeway in analysis (it does not), but because this vagueness corresponds with empirical realities. The value of a family heirloom is not purely sentimental, it is entangled with relationships to previous owners and the importance of those relationships, the aesthetic value of the object and other qualities.

The inclusion of monies and markets in this research is a consequence of studying exchange and value, as the former are the practical antecedents of the latter. As a medium of exchange and a store of value, monies follow logically from economic value and exchange. For participants, the nature of money is a pragmatic question. What money *does* is far more interesting. Players of FFXI argued that monies (rather than markets) are essential to understanding how economies are organised. As players negotiate, calculate and use over a dozen fictive currencies, money-like objects and token systems in Final Fantasy XI, this emphasis on monetary multiplicity and monies that create distinct domains of consumption and circulation is not entirely surprising. Players' accounts of Real Money Trading – exchange of virtual goods for everyday monies, usually United States dollars – illustrated distinctions between types and categories of monies. For SL residents, the Linden dollar is a political lightning rod. Debates over whether the Linden dollar is real money or not are less about monies than existential politics, or whose vision of how to live in SL is “correct”. Residents' conceptualisations of Linden dollars cross deeply entrenched social fault-

lines, bringing together groups that ordinarily would have little in common. Respondents presented accounts of money practices and money as an actor that have much to offer money scholarship. Though lay theories of exchange and value have parallels in classical sociology, academic approaches to money that are relevant for lay theories are more current (Dodd 1994, 2005a, 2005b; Hart, 2000; Bohannon and Bohannon, 1968; Zelizer, 1997, 1998a, 1998b).

“The market” may be a master category in economic sociology and contemporary Western capitalist societies, but that is not why it is included here. For some economists and economic sociologists, “the market” is the key concept for understanding how economic behaviour is organised, but for lay theorists in this research, markets are not a privileged or central category. Residents of SL believed markets are not germane to their understanding of economic life on the grid, despite the importance of activities like shopping. Adopting a narrow view of what constitutes a market, SL respondents were unwilling, or unable, to imagine alternative configurations, or even describe what kind of an economy might exist without markets. Residents were constrained by economic ideas they identified as irrelevant, but were unable to put aside. Despite having evidence of, and participating in, an economy that seemed to function without the usual requirements of a market, SL interviewees struggled to shape these experiences and knowledges into theories. Players of FFXI conceptualised markets in several ways, as spaces, as entities imbued with agency, and as shifting bundles of goods. However, each market conceptualisation was characterised by a precisely delineated realm of practices. For FFXI lay theorists, markets are collections of goods, actions and actors.

Positioning the Project

This research begins from a position that acknowledges the existence and significance of vast crowds of people sitting on the sidelines, playing supporting roles, and occupying the stands in the fast and dirty game of contemporary Western capitalism, and seeks their input in developing a more dynamic and diverse economic sociology. I aim to bring theories from lay people, economics, economic sociology and anthropology into an equal dialogue, which is perhaps an ambitious goal given the prestige of economic language, and the extent to which citizens in Western contemporary capitalist societies are exposed to neo-liberal rhetoric and socialised as consumers. This project is not a “corrective” one, but rather speculative, to explore economic lay theories and concepts in action and consider how such ideas might be incorporated into sociological framings of economic life.

Economic sociology is not necessarily imperiled, but it has remained stuck in older ways of thinking and writing while many other areas in sociology have embraced more reflexive and polyphonic approaches. A popular and increasingly visible group of economic sociologists are exacerbating these long-standing problems by reproducing as fact, or at least authoritative wisdom, the perspectives of financial elites. These views of economic life are rather deterministic, featuring “the market”, “the economy” and “the firm”, among other characters, as their limited dramatis personae. This is more than old-fashioned, it is positively antediluvian. Despite increasing convergence amongst economists and some economic sociologists, there are other ways of making sense of economies and economic life. From a more diverse collection of voices and ideas, we can construct more nuanced and sophisticated understandings of economic life that recognise empirical realities of difference rather than assuming sameness.

Chapter II: Field Sites

If this project examines lay theories of economics then it is reasonable to wonder how and why this should be accomplished through virtual worlds. In a previous project on Final Fantasy XI, interviewees presented complex accounts of their economic activities and theories of how the virtual world's economy functioned. When the same respondents were asked to expand their speculation to everyday life, responses were generally negative. Megatron, a social player, gave a typical response: "I don't know about that stuff, just FFXI." Yet players' explanations of activities in virtual worlds frequently depended upon comparisons with everyday practices and economic knowledge gleaned from mass media and their own experience. Using experiences in virtual worlds as a foundation for discussing lay theories of economic life is practical for participants and beneficial for researchers. Respondents are freed from any risk of embarrassing financial disclosures and perceived lack of expertise. As a researcher, I benefit from the nuanced yet bounded qualities of these virtual worlds and the reconfigurations of economic life they offer. In addition to a brief discussion of virtual worlds as research sites, this chapter introduces Second Life and Final Fantasy XI.

On Virtual Worlds as Field Sites

Virtual worlds could be described as intriguing laboratories for social scientists, but this description is slightly misleading. Unlike laboratory researchers, field workers in virtual worlds can neither control nor modify the parameters of virtual worlds. We are just as much subject to the whims of system administrators, game designers and corporate owners as other users. In virtual worlds researchers cannot set or alter the variables of the "experiments" nor can we select (or even know

very much about) the “subjects”. Instead I propose that we abandon clumsy metaphors. If one must be used, let us instead speak of virtual worlds as lenses that provide a bounded set of practices while focusing both respondents' framings and researchers' analyses. This research uses two virtual worlds, precisely because these settings are not controllable laboratories but are sociotechnical assemblages in a state of flux. In these settings, technological affordances constrain some practices and enable others, but users also reinterpret, resist and sometimes even subvert what virtual world creators intend. By using two virtual worlds, we achieve not so much stereo sound, or a deeper vision of lay theories, but sets of practices emerging under different conditions and facilitated by different institutions, actors and technological affordances.

Examining lay theory through the lens of a virtual world provides participants with a collection of practices and understandings within a relatively narrow sphere. Links between actions and outcomes are shortened, particularly in FFXI, where the results of players' decisions are observable, and their consequences, immediate. Action not only feels as though it makes a difference, players are able to pursue what could be described as an evidence-based approach. It is not researchers who experiment in virtual worlds, but users. Residents in SL tinker with the limits of scripting and building; players of FFXI experiment to discover hidden software algorithms. These tests – playful, frustrated, serendipitous, adventurous – produce knowledge that is then incorporated into theories about how a given aspect of a virtual world operates.

In societies where the right to speak with authority on certain issues is reserved for accredited or experience-based experts, lay people may dismiss their own theories, or believe their understandings are somehow inadequate. However, long-term residents of a virtual world become

experts in its practices, and their local knowledge is recognized as expertise by peers. This experience provides confidence to discuss topics which speakers may otherwise dismiss as being beyond their competence. When conversation begins with practical experiences of virtual worlds, respondents are willing to extrapolate from knowledge gained through economic practices in FFXI or SL to economic processes in everyday life. A particularly memorable panel interview with FFXI players concluded with one participant's analysis of circulation and exchange influenced by game design as opposed to accidental or chance occurrences. Squiggle supported this account with an example from everyday life involving fluctuations in oil prices, market speculation and weather patterns in the Gulf of Mexico. For investigating economic practices and understandings, virtual worlds also have the advantage of distance from worries of financial disclosures except with respect to buying Linden dollars in SL, a sensitive topic for some interviewees.

Virtual worlds present familiar social problems and practices in unfamiliar light or in novel configurations. For example, FFXI presents a world awash with monies, which seems peculiar until we consider the proliferation of monies and tokens in contemporary consumer societies: loyalty schemes, points cards, virtual monies like Bitcoin and various non-transferrable credit monies. Though these simulations do not replicate all spheres of human experience, they do operate in fairly realistic and predictable ways. There are undeniable fantastical elements – casting spells, riding gigantic flying beasts or becoming temporarily invisible – but there are still human beings behind the avatars interacting in virtual space. Interactions that take place between the people behind the virtual bodies are no less human behaviour because they happen online. Boundaries between virtual worlds and real persons and lives can be porous. This is a strong difference between Final Fantasy XI, where players talk about their workplaces, families and personal

matters in everyday life, and Second Life, where boundaries between First and Second Lives are usually very carefully observed.

Second Life and Final Fantasy XI represent dramatically different variants of massively multi-player online game design. Final Fantasy XI is a heavily codified and proprietary world with a game orientation – as indicated by advancement through levels of power, progressive rewards and achievements, and emphasis upon skill and mastery – in which players' actions and ways of interacting are constrained by proprietary software. Second Life, whose software is open-source, is a simulation that provides its inhabitants with the means to enhance the virtual world by designing original objects, avatar gestures and scripts. Second Life seems to present a more nuanced simulation than the tightly scripted universe of Final Fantasy XI, but certain features of economic life in the latter, such as systems of monetary control and regulation and engineered scarcity, are far more familiar from everyday life than those of the former.

Second Life: A Brief Primer

Second Life (SL) is a free-form, non-proprietary, three-dimensional virtual world whose users are known as residents. The virtual world of Second Life is sometimes referred to as the grid, and its software is called the SL viewer. Details are sketchy on the number of total users, but Linden Lab claimed 15.1 million accounts existed in 2008 (Takahashi, 2008). Technology media sources such as CNet (Terdiman, 2007) and video game news blog, Kotaku (Plunkett, 2008), have questioned the validity of these figures. One aspect of Second Life's user base is certain: the number of residents online concurrently was declining during participant observation. During fieldwork, mid-2007 to 2010, Second Life seemed like a partly abandoned, slowly dying world. The first week of

fieldwork was spent trying to find another resident available for conversation. Though green dots on the map screen indicated the presence of other users, upon teleporting to what appeared to be well-populated places, expectations of genial crowds were often disappointed. Occasionally there were a dozen residents dancing or milling around, but many were empty shells, their users absent from the computer. More often, potential conversation partners were revealed to be dummies: avatars used to model clothes, secondary accounts left idling overnight to earn money by camping, pole-dancers on auto-pilot, controlled by scripts, or avatar-automata announcing greetings to all and sundry inside shops. Finding respondents was an uphill struggle, but after joining several groups including a radio drama enthusiasts club, a virtual economics discussion group, freebie item collecting societies and an LGBT community, meeting other residents became easier.



Residents seated around a virtual campfire, listening to a radio drama streamed in Second Life.

Second Life is not broadly conceived as a video game, but as a platform for sociability, leisure, consumption and creativity. Designed and maintained in by Linden Lab, it is an anarchic collection of largely ungoverned territories and micro-communities. There are no objectives for residents, no overarching purpose or narrative. Though each resident decides how she wishes to exist and interact in-world, conflicts arise between competing visions of “the [virtual] good life”. An economically significant fault-line divides residents with a large stake in the promotion of Second Life's economy – land barons and business owners – from those whose consumption largely consists of freely copied and circulated goods. Linden Lab founder Philip Rosedale describes SL as “an online world that advances the human condition” (Linden Lab, 2008), and this view had been internalised by many research participants. Yet creativity is less practiced than consumption. In SL residents are represented by an avatar, an ongoing project of self-representation that takes many forms. Constructing new visual styles is an important means of demonstrating appropriate participation in SL along with personal discernment, taste and shopping acumen. From the ground upon which avatars walk to the components of their virtual bodies – skin, eyes, hair, shapes, enhanced breasts, muscles – almost every aspect of the virtual world has its own product range: trees, plants, water textures, pictures of pebbles and ambient sounds. Instead of the creative world described on Linden Lab's website, Second Life is intensely commodified in ways that echo cost-benefit analyses of biodiversity that price clean water and amphibian populations.

Though a description of Second Life on Linden Lab's website begins with an emphasis on creativity and imagination, it quickly becomes an ode to unlimited consumption.

Second Life is an online 3D virtual world imagined and designed by you. From the moment you enter Second Life, you'll discover a universe brimming with people and possibilities. Create and customize your own digital 3D persona, also

known as your avatar. Be a fashion diva, a business-savvy entrepreneur, or a robot or all three. Changing identities is quick and easy, so if you tire of your avatar's outfit or body, shop for a new one in Second Life or from your web browser. [. . .] Second Life is a shoppers' paradise. From designer shoes to medieval weaponry, from yachts and mansions to starships and subterranean lairs, the options are limitless. If you can imagine it, chances are someone is selling it. As for your shopping bag, it's bottomless. Keep thousands of outfits in your collection.¹

Residents are encouraged to become "business-savvy entrepreneur[s]" and "fashion divas", but the problematically gendered consumer option is presented first. Second Life is not so much a commodity as it is *commodified*. It is a virtual world where consumption is presented as a normative end-in-itself. Such tensions between consumption, commodification and creativity animate respondents economic theorising and their understandings of "the good life" in SL.

Second Life avatars are bedecked with virtual Prada shoes encrusted with gleaming diamonds. Some live in lavish homes, an overwhelming number of which have private beaches, and most residents own multiple vehicles, from sports cars to helicopters. Though Adidas, Versace and other fashion brands do not have a presence in Second Life – they do not produce virtual goods – imitation goods are widely available. Cheaper shops in SL are reminiscent of East Street Market or Petticoat Lane, with jumbled off-label merchandise and stock that fell off the back of the truck. Along with Chanel diamond bracelets and Nike trainers, there are products these companies might never create, such as Emporio Armani combat knives. Second Life offers a world of luxurious goods for all. Yet this incredible range of virtual commodities is produced by only a small proportion of highly productive residents. Blocks called prims are the raw materials for building in SL. Prims are manipulated, shaped, placed together in groups and given colour and texture in-world. Only the first model of an object is built manually. Copies are generated automatically,

¹ <http://www.secondlife.com>. Accessed July, 2009.

instantaneously and at no virtual cost. Sometimes production is assisted by tools, for example a widget that neatly assembles garment panels, lining up matching edges of a pattern like a skilled tailor. Though anyone may create objects – basic prim-making and manipulating tools are part of the SL viewer – not many residents build, and even fewer do so on a regular basis or with skill. Building can be pain-staking, and creating sophisticated objects with complex shapes or textures, animated or interactive features, requires expensive digital modelling and imaging software, and familiarity with Linden Scripting Language. Builders in SL are able to add three qualities to their creations that limit reproduction and circulation: no copy, which prevents consumers from easily duplicating commodities; no mod, which locks the qualities of an object and prevents purchasers from making any modifications; and no transfer, which makes the object inalienable, it cannot be given to another resident. Some scripts allow residents to override these restrictions, like the CopyBot, which can duplicate any object. Use of such tools is understood by most residents as violation of intellectual property rights. Expensive goods with scripts and sculpted prims building blocks moulded into shape by meshes made with external digital modeling software are usually restricted, but many objects in Second Life can be freely copied and transferred. As such copiable objects circulate, they proliferate.

Commodities are not the only objects of consumption in SL. Residents assemble networks of fictive kinship, adopting virtual sisters, brothers, parents and children, in addition to romantic partnerships. These social ties are represented in residents' profiles, which resemble the offspring of a curriculum vitae and a speed dating crib sheet. Profiles provide information on a resident's interests, personal website, in-world and external skills, favourite places and information about their everyday lives. The “Favourite Places” section is used by residents to display their favourite

people. By choosing a location and then adding a picture of fictive kin and a short text, residents display significant relationships. Texts usually comprise an affectionate description of friends or fictive kin, along with threats of potential violence or aggression to any who might offend or do harm. Read as an outsider, these texts seem thuggish, but in SL such declarations of affection set up relations and people as special things “protected and isolated by prohibition” (Durkheim, [1912] 2001:40).

Profiles are accessible to other residents and are also objects of consumption. Surfing profiles, or clicking on nearby residents and reading about them, is a common habit that has taken on the character of a social obligation. It is poor etiquette to meet a resident for the first time without checking their profile, especially in SL business circles. Though residents' profiles are overflowing with information about shopping choices, fictive kinship, favourite locations and activities, they frequently contain little or no information in the “First Life” section, which was intended for details about a user's everyday life. The most frequently observed material provided in this section expressed desires to maintain distance between residents' virtual and everyday lives with comments such as “My Second Life is separate from my First Life” or “Second Life is Second Life, First Life is First Life”. Boundaries between “First” and “Second” lives are strictly policed. Asking questions about topics that link SL with everyday lives can cause discomfort or hostility.

Unlike SL and everyday life, which residents attempt to compartmentalise, SL's economy is interpenetrated by everyday economies. Transactions between residents that take place in SL are paid in Linden dollars (L\$ or Lindens). Selling Linden dollars is an important revenue stream for Linden Lab, which sells this money through the LindeX, their online money exchange, or via a

direct link within the SL viewer. The LindeX, accessible through Second Life's official website, simulates foreign currency exchanges. Anonymous transactors place orders and are automatically matched. To conduct such trades, users must have an accepted credit card or Paypal account. Linden Lab does not buy Linden dollars, so the few residents who make enough virtual money to cash out are dependent upon other residents' currency buying habits. The LindeX is considered too troublesome by many residents; some interviewees did not know it exists. These individuals purchase Linden dollars directly from Linden Lab at a fixed rate through an option in the main menu bar of the SL viewer. Privately organised Linden dollar exchanges exist as well, though not all are licensed by Linden Lab. Some residents prefer to endure slightly higher rates from private exchanges to avoid having fees from Linden Lab on their credit card statements, while others are excluded entirely from virtual money purchases because Paypal or credit cards recognised by Linden Lab are not available in their country.

Though a very small number of residents run businesses that generate enough revenues to cash out, or exchange virtual money for United States dollars, most entrepreneurs in SL run their businesses on a loss-making or break-even basis. The principle profiteer from Second Life remains Linden Lab. Their revenue has three sources: land sales to residents and monthly upkeep charges, called tier fees; monthly charges for Premium Accounts; and selling Linden dollars. Real estate constitutes the largest industry in Second Life. The minimum cost of land through basic purchase from Linden Lab is \$250,² which buys a 65,536 m² Openspace Region with a monthly fee of \$75. However, Openspace regions are only available to owners of a Full Region, an identical sized plot with a cost of \$1,000 and monthly fee of \$295. To purchase land, a resident must have a

² All prices are in United States dollars unless otherwise indicated, and were collected in 2009.

Premium Account, which costs \$6 monthly. Residents with free Basic Accounts receive no allowance and cannot own land, but may rent at usuriously high premiums from private sector landlords. Such tenancies are sometimes called purchases, though tenants continue to pay rental fees on these properties, similar to maintenance fees in a condominium or a complex of luxury flats in everyday life. These rental fees pay SL landlords' monthly tier fees to Linden Lab.

Though real estate is the biggest money making enterprise in SL, only a small proportion of residents own land. Of thirty interviewees, only ten were renters or owners of land, and all of these were entrepreneurs. Of residents encountered during participant observation, less than one in fifteen rented or owned land. This situation may have changed slightly since Linden Lab began a policy of free homes for premium account owners, but there is a large population of transient users who barely purchase any Linden dollars and participate only marginally in virtual cash economies on the grid. There are two economies in Second Life: one consisting of fairly well-to-do middle class individuals replicating and improving upon their social status in everyday life, and residents who cannot buy virtual money. Those who cannot buy Linden dollars rely on freely distributed objects and camping, staying in one location for a long time to receive negligible amounts of money. Though camping is now prohibited, land owners previously offered money in this way to artificially increase visitor numbers in a crude form of advertising. Camping wages were as low as 1L\$ for forty-five minutes. For residents who buy Lindens, 261L\$ (~1USD) is a small amount that could buy a new outfit, shoes and a matching hairstyle. For campers, this is a princely sum, more than the earnings of a forty hour week of camping.³ In SL, a well-made skin for an avatar or

³ A resident camping forty hours in a week at a generous rate of 1L\$ for fifteen minutes would earn 160 Lindens. If she were to camp around-the-clock for seven days, her earnings would be 672L\$ with the bonus of a sleep deprivation headache.

aesthetically appealing sports car can cost up to 2,500 L\$, but many clothes, accessories and objects cost less.

Final Fantasy: A Very Brief Introduction

Final Fantasy XI (FFXI) is a massively multiplayer online role-playing game (MMORPG) created, owned and maintained by Square-Enix. Unlike SL, whose residents all occupy the same virtual world, there are multiple iterations of FFXI and its fictive world is called Vana'diel. The principle currency is gil, though many monies, money-like objects and token points systems are used in-world. Proprietary software, the FFXI client, is needed to play, and monthly access fees apply.

Fans have developed third-party plug-ins that manipulate the FFXI client in various ways and players' opinions of the legitimacy or utility of these tools vary, though all are violations of Square-Enix's Terms of Service. From 2009, numbers of players online concurrently started to decline.

Though FFXI is now an older game – Square-Enix recently released another MMORPG, Final

Fantasy XIV – there were still 2.35 million characters in 2009 (Square-Enix, 2009). In FFXI, players create a character whose achievements, skills and power they strive to improve. Characters take on multiple jobs, such as Warrior or Ranger, and advance through levels of power by killing monsters.



From left to right: A Hume Warrior, Mithra Samurai and Elvaan White Mage fighting an Orcish Champion.

achieve the highest levels, and many users have accomplished this several times over. Players can also practice crafts like cooking or alchemy, harvest resources by fishing or mining, or simply explore Vana'diel. Characters are not understood as separate identities. For respondents, FFXI characters are tools or self-projections. This approach creates a fairly civil society where characters are recognised as virtual extensions of real people deserving courtesy and fair play. Final Fantasy XI is structured around sociability and group activities, and characters cannot attack or murder one another, except in scheduled Ballista matches. A character cannot become stronger alone, she must join parties with others to gain experience and participate in player communities to accumulate knowledge to reach her goals. Co-operation, sociability and mutual aid are not accidental in FFXI, they occur by design.

Linkshells (LS) are the foundations of social organisation in FFXI. Created and managed by players, these networks can be formed for any purpose, from casual associations for sociable conversation to highly organised and disciplined groups. High performance linkshells fight strong monsters and undertake challenging battlefields that provide access to powerful weapons and equipment that are distributed amongst members. Such linkshells require membership applications, have their own websites or forums, and usually require members to attend a monthly quota of scheduled events. Whether the linkshell is a group of chatty friends or an army of monster hunters, members form social ties that bleed into their everyday lives. It is not uncommon for adult players to gripe about bosses or talk about their children. Younger gamers complain about parents and exchange stories about who said what to whom in school corridors. In Yukikaze, one of the linkshells involved in participant observation, a member's incarceration and return were a major topic of discussion for several months. He was picked up from jail by an old friend, who also

happened to be a linkshell member.

Co-operation and design are important for understanding economic life in FFXI. This world is in a constant state of development, expansion and revision by a large team of developers at Square-Enix, who have designed and tested every monster and object. Though developers decide which things enter the world and how they are acquired, players must generate objects by killing monsters, completing quests, or producing them from raw materials. Objects in FFXI cannot be duplicated and cannot be modified without a pre-existing recipe. Crafting recipes have skill level requirements, and skill development is restricted by material costs, limited profitability with low and mid-range recipes, and low rates of skill increase. Successful production is also not guaranteed; workers can lose expensive materials when their efforts fail. A division of labour in FFXI unites players who extract resources and craftsmen from various trades of all skill levels. This system is intended to create mutual interdependence between non-craftsmen and craftsmen of different trades and experience. Some players gather raw materials by mining, gardening, killing monsters and so on, which are then used by crafting apprentices to produce basic components. These components are processed into other commodities that are needed by more skilled practitioners, and so on. For example, a woodworking initiate can make maple sugar and maple lumber. Maple sugar is used by cooks of varying skill in over fifty dishes. Maple lumber is used by goldsmiths, blacksmiths and weavers.

Topping this production pyramid are artisans producing attribute enhancing equipment, weapons, specialised foods and elixirs. Skilled craftspersons can often dictate their terms to lower level crafters and other players. If the price of materials is too low, artisans can often buy raw materials

and synthesise their own components. If buyers are not paying what an artisan deems to be a reasonable price for his wares, he can refuse to sell, which can have major knock-on effects for workers in other trades who might rely on his goods, or for players who need equipment or consumables. Finally, highly skilled tradesmen are sometimes able to produce high quality (HQ) results, either more than the usual yield or a special enhanced item. A high quality synthesis of an arrow recipe may produce 66 or 99 instead of 33 arrows; a high quality result for a healing potion produces an extra potent potion +1. Deliberate market manipulation by skilled crafters is not common, but does occur. Some players form syndicates to set and maintain prices for raw materials and basic commodities to prevent downward price movement as a result of undercutting or excessive upward movement from price gouging. From 2004, a group of woodworkers on Omega server maintained stable prices for various crafting materials for several years.

Though non-player characters (NPCs) sell various commodities in shops, players generally trade with one another for the necessities of an adventuring life in Auction Houses (AH) and bazaars. Auction Houses are located in Vana'diel's major cities and outposts. Players cannot buy or sell remotely, their character must be standing at an AH to access its services. Auction Houses bear little resemblance to an auction in everyday life. Rows of characters stand silently, absorbed in a series of menus, browsing items for sale organised in categories with many subdivisions. Outside Vana'diel, players have access to information about AH sales through the Final Fantasy XI Auction House website (FFXIAH). This fan-made site has searchable databases that track all transactions in real time from Auction Houses on each server. Though this website violates Square-Enix's Terms of Service, it is widely used. Objects are organised according to the same categories as the Auction House in-world, with the number currently available for sale and an assessment of current

demand compared to sale speed. These ratings range from “Dead Slow” to “Very Fast”. Cross-server price comparisons and extensive price histories are also available. For crafted objects, synthesis recipes and profit margins are listed with recent prices for components and final products. Unlike Auction Houses, bazaars in FFXI are mobile. A player selects a price for objects in his character's inventory and then nearby players see a sack icon next to his name, which indicates that he has goods for sale. Prospective customers can view wares by using a special command to check what he is selling. Bazaars are useful when sellers are reluctant to pay large AH listing fees for items of great value and for selling certain items that cannot be auctioned but can be exchanged between players. Inside some of Vana'diel's cities taxes are levied on bazaar sales. Large marketplaces have emerged outside city walls, often peopled with nearly naked characters. Storage space is limited in FFXI, and clothing counts toward a character's storage capacity. Bazaaris prefer using inventory slots for merchandise not apparel. Some players establish a permanent bazaar presence by opening a second FFXI account.

Although gil is the principle money of Vana'diel – it is used in Auction Houses, bazaars and NPC shops – many other monies, money-like objects and token money systems exist. Money-like objects are items that both resemble money in appearance and are used to purchase goods within a limited sphere of consumption. These are usually acquired in special battlefields and represent fictive, historical specie from one of Vana'diel's city-states. Unlike gil, represented by a number in a character's inventory screen, these monies are objects that require inventory space. Though they cannot be sold in Auction Houses, these monies are traded in bazaars and exchanged with NPCs to buy items or upgrade equipment. FFXI features over a dozen token systems, each one with different modes of accumulation and conversions into inalienable equipment. Some of these token

monies are regional, and can be used to buy coinage that local NPC merchants or service providers accept as payment instead of gil. A more complete account of monies in FFXI will be provided in chapter six.

Though players cannot buy gil from Square-Enix, a lively business has arisen in Real Money Trading (RMT), or selling virtual currency for US dollars. The End User Licence Agreement and Terms of Service from Square-Enix are clear: virtual economies should remain isolated from everyday economic life and those who sell goods or monies from proprietary worlds are violating Square-Enix's intellectual property rights. For most players, the matter is a line in the sand. Real Money Trading is believed to be an affront to the meritocratic, achievement-oriented ethos of Final Fantasy XI and economically destabilising. Those who buy their equipment and gil rather than working to earn it are viewed negatively. For companies who profit from real money trading, virtual worlds are a business opportunity. In an interview with Gamasutra (2007), James Clarke, then Chief Operating Officer of IGE, one of the largest real money trading companies, framed real money trading as an economic corrective measure:

Economies flow their natural course. Economies that try to restrict import/export are not usually as vibrant as those as facilitate it.

Facilitate is a crucial word, as IGE employees and those of similar firms do not accumulate items and monies in virtual worlds, they only manage websites where these products are sold. The virtual labour generating this merchandise is subcontracted to small business operating sweatshops where labourers work long hours and sleep in filthy dormitories. Such human exploitation is profound social injustice. Yet from an analytic perspective, Real Money Trading brings digital economies and virtual worlds into a wider pattern of global capitalism in which

workers and citizens in the global south are exploited to maintain the lifestyles of consumers of the global north (Beck, 2005).

Two Worlds, Many Theories

Though *Second Life* and *Final Fantasy XI* are very different, users in both worlds are engaged with well-defined economies. Using these experiences and knowledges, respondents develop conceptualisations of economic life and theories about how economies and economic institutions function (or fail to do so). This chapter has briefly introduced both field sites, and given a cursory overview of local economic institutions, practices and concerns, occasionally touching on connections between economic practices and game structure or design. These descriptions suggest that locally observable differences may not always be as simple as they seem. The pleasures of individual consumption, which animate many residents' experiences of *Second Life*, seem different conceptually and empirically from collective accumulation of wealth in *FFXI*'s high performance linkshells. Yet there are suggestions of collective consumption in *Second Life*, especially in the circulation of freebie goods amongst transient residents. In *Final Fantasy XI* there are also some aspects of players' engagement with the game that are focused on personal consumption rather than generating goods to be shared with others. Sometimes such differences can only resolve into similarities if we are willing to do some small violence to the accounts presented by respondents. This tension between faithfulness to participants' priorities or interpretations and a temptation to seek similarities, or add a further layer of ostensibly "expert" interpretation, is one of the principle themes of the next section. This chapter has presented accounts of field sites and what materials there are for a comparative ethnography, and the next provides some explanation of how this project was undertaken.

Chapter III: Research Design and Practice

Goffman once said (1989:124-125), “Ordinary people go into the field with no discussion at all.”

Unfortunately, sociologists are not so lucky and must present an account of their doings in the field in addition to those of their research participants. This chapter provides one such story and explains decisions made after selecting field sites, covering fieldwork practicalities including technical details of participant observation; how participants were found; how interviews were conducted; how data so generated were handled; a brief outline of an analytical framework; and what analytical techniques were used. I will also address some difficulties in employing identical methods in both settings and problems encountered with informed consent as well as a reflexive note on personal responses to fieldwork in *Second Life*.

Comparative Design Choices

Identifying this project as a comparative ethnography is only a partial truth. In fact, it is problematic on two counts. Qualitative methods, especially ethnography, are incompatible with comparative research as it is generally understood in sociology. Second, this research is not a single ethnography, or even a matched pair, but rather a comparison of data generated by two multi-sited ethnographic studies. Before explaining why this somewhat eccentric design was used instead of a more conventional or less labour-intensive approach – such as a mixed methods case study or a single ethnography – it is necessary to briefly address these two difficulties and position this project in a wider methodological context. Comparative research usually does not include ethnography, and comparative ethnography whose empirical materials were collected by the analyst, rather than consisting of secondary sources, is also unusual.

Comparison and Connection: Translation, Partiality and Multi-Sidedness

In sociology, the comparative method – the definitive article and singular form are almost always used – is a narrow niche whose occupants include socio-historical analysis and cross-national survey research (Mills et al., 2006; Smelser, 2002; Øyen, 1990). Macro-level quantitative work predominates, though mixed methods case studies are not unusual. Smelser (2002:645) provides the following definition for comparative research:

. . . description and explanation of similarities and differences (mainly differences) of conditions or outcomes among large-scale social units, usually regions, nations, societies and cultures.

This project bears little resemblance to Smelser's vision. This section explains what it means to call this research a comparative ethnography, and outlines the analytical framework used in interpreting diverse field work data.

Rather than identifying with sociological comparative projects, this study was inspired by recent efforts in anthropology to expand possibilities for qualitative comparison (Strathern, 1991:xvi-xviii; Gingrich and Fox, 2002; Holy, 1987; Clifford and Marcus, 1986). These authors focus on pragmatic problems such as translation (Marcus, 1998; Overing, 1987:76; Strathern, 1991) and partiality (Strathern, 1991; Tyler, 1986) both of which dogged every step of this study. Even within such an expanded context, this project is still an oddity because it draws upon primary rather than secondary data. In both anthropological and sociological comparative work scholars generally rely on artefacts collected, data generated and accounts recorded by other fieldworkers and analysts. A closer relationship with field sites does not indicate a greater wholeness or that images and experiences evoked are somehow more complete. Instead, partiality, notably local nuances blurred at the level of comparative analysis, was more difficult to ignore. There are entire subcultures

(beyond those of sexual fetishists) in Second Life whose perspectives are entirely unmentioned in this research. Though I encountered residents involved with virtual support groups, charities and educational institutions in participant observation, very few were interviewed for this research.⁴ It is impossible to create a complete account, a total description, of even a very small setting, say the pick-up counter of a local sandwich shop. There will always be more detail, missing pieces, interactions, objects or practices misunderstood or simply not seen or appreciated. It is only possible to describe a certain point in time, a particular moment or series of moments, from a partial vantage point (Clifford, 1986:7; Strathern, 1991: xvii). Much has changed in both sites since 2010, even more in FFXI since 2003. This analysis is confined to moments and places firmly in the past, some of which seem quite distant history at the speed of Internet time.

When dealing with multiple sites within a setting, and even more so with two settings, it is important to acknowledge this partialness because in comparative analysis it can be tempting to over-generalise, smoothing out the rough edges of local experience and knowledge, for easier comparison. It was necessary to accept from the beginning of this project that “surface understanding conceals gaps and bumps” (Strathern, 1991:xxvi). As the scope of analysis grows wider, and the amount of data generated proliferates, the size and perilousness of the monsters underneath the surface increases as well. For example, this research does not explore differences in economic framings between members of high performance linkshells and less intense social groups in FFXI, which is a big monster indeed. Though such players share an emphasis on production of collective wealth within linkshells, the ways this is accomplished, and how “wealth” is defined can be quite different. For some players, a character is rich if he has large sums of money

⁴ However, I have interviewed support group members in SL are part of another research project (Schmid and Ross, 2010; Ross and Schmid, 2011; Ross, 2010).

and expensive equipment, but also if he has the capacity – through crafting skills, leadership abilities or brute power – to generate money for himself or to place others in his debt through feats of arms. Intangible assets such as skills and debts of honour or service owed to a player were included in assessments of his wealth. For others, wealth was not an important marker of prestige or a central concern, so it was simply equated with possessing large sums of gil or material goods.

Having spent six years involved with Final Fantasy XI players and over three in Second Life, balancing local knowledges and participants' experiences with the need for more general contours for analysis was a formidable problem which was further exacerbated by problems of translation. There is a certain kind of mental gear shifting required for qualitative comparison, translations between abstractions and multiple empirical realities; between languages of lay and academic theories. Conceptual translation, or making ideas from one context intelligible in another was a significant aspect of research design. At various points it was tempting to build elaborate explanations on a comparative level or look for superficial analogues and strategically forget crucial ethnographic details that might tear the entire construction to pieces. How much distortion of participants' individual framings is acceptable in order to create a picture of a practice, a concept, a category of objects, in each setting with common language – this was a question that arose repeatedly in every stage of research design and implementation. I have tried to minimise these distortions while also presenting opposing or different views as a reminder that there is not always consensus within field sites about economic practices and concepts. Different interpretations of production illustrate these translation problems well. In Second Life, production has many meanings: manipulation/modification of items; creation of scripts or animations; making something from building blocks; or even copying items. Production is not labour, it is framed as tinkering or

play. To speak otherwise threatens the importance of Second Life as a leisure and relaxation space. Yet the mystique residents attribute to production processes – particularly in theories of economic value – is resonant with a Marxian approach. In FFXI production also has several meanings, but none of them approach the free-wheeling creative processes of SL.

Several solutions have been offered to translation problems, two of which are relevant here: Tyler's (1986:122-123) suggestion that any attempt at representation should be abandoned and that a new genre of post-modern ethnography should be built upon evocation, and Strathern's (1991:38) reconfiguration of comparative analysis as connections and extensions, drawing on Haraway's (1991) metaphor of the cyborg. Translation and interpretation are forms of representation. Crafting translations of concepts and practices that maintain the spirit of the original while incorporating the logic of the new context can be a tricky task. Becoming entangled with extensive local details – which happens frequently when the comparative analyst and field researcher are one and the same – increases the task's difficulty. Players of FFXI have developed dense and self-referential jargon to describe the game's fictive world and institutions, which includes abbreviations for in-game places, items and activities, local variations on “fag discourse” (Pascoe, 2007:54), Internet memes and jokes, and a magpie bricolage of technical terminology from computer science, economics, gaming magazines and jargon from text-based online games. Translating convoluted strings of abbreviations is not the difficult part. Deciding which abbreviations are crucial for readers or analytically germane, which activities, how much of the fictive context is needed, or to what extent design elements shape or frame the ways respondents theorise – these were the difficult decisions. Translating ideas from player-speech became more complicated when I realised that some words are used as prestige language, particularly legacy terms from old games – mobs,

short for mobiles in Multi-User Domains (MUDs), instead of monsters – and terminology from economics. Economic terms used as a prestige languages posed more difficulties in Second Life than in FFXI. Performing adequately in the role of a skilled, knowledgeable entrepreneur required some SL respondents to take ambivalent positions, a matter explored in depth in the latter half of chapter five.

Reducing nuanced practices in one setting to a more general outline suitable for application elsewhere is a totalising task. Tyler (1986:123) describes a style of ethnography that is liberated from painstaking representation and all its baggage of unequal power relations. Inspired by Bakhtin's (1994) concepts of polyphony and heteroglossia, Tyler (1986:127) proposes a polyphonic, multi-voiced evocation of places, people, practices and things. Adopting this approach to thinking about data and adapting concepts from one setting for discussion in another created space to incorporate diversity in participants' framings. In the analysis that follows, I have tried to incorporate multiple lives, trajectories and experiences and to avoid representations, especially those that collapse diversity and difference. Considering the scale of this project, this was a challenge, particularly in Second Life where there are many conflicting ways of being in the world and framings of "the [virtual] good life". Evocation also offers a solution to the problem of representing mediated experiences. The validity and authority of ethnography is traditionally based on accounts of the experience of someone who was "there" in the field (Strathern, 1991:7), which can be problematic when the field is not a place that can be directly experienced, as is the case in this study. Instead of attempting to present a single representation of life in FFXI or in Second Life, I have attempted to evoke, as Strathern (1991:7) writes, "what can be conceived but not presented". Though both FFXI and SL have smaller horizons than those of everyday life, there is

more in both settings than can be described here. Rich descriptive passages are in short supply, and I have relied on respondents' accounts, along with illustrations, to conjure up impressions of economic life.

Connective anthropology, as outlined by Strathern (1991:38), seeks “connections without assumptions of comparability”. This approach respects local conditions by seeking ways to combine and integrate empirical realities rather than seeking a universal set of practices, beliefs or categories and inflicting them upon different cultures. Strathern (1991:38) goes on to describe these connections as a process of extension, a revelation of “expanded or realized capability”.

Connection acknowledges partiality because each new link brings together fragments, bridging a previous gap but creating others and opening up different possibilities for further extension.

Admittedly, according to a strict interpretation of connective anthropology I have not incorporated this solution very well at the conceptual level. This project uses four overarching categories, but each one is interpreted differently locally. Analytically I have tried to avoid an apples and oranges approach, that is to say a direct compare-and-contrast orientation, because such thinking is not only built upon problematic assumptions of universals and stability, but also requires a certain level of condescension toward participants' own explanations. A predictable dance between similarities and differences is not what this project seeks, because, at the risk of using a cliché, life is never that simple. Though I will use the words comparative and comparison, such usage is shorthand reference to a particular category of research, not a crude A is to B as C is to D formulation. In examining the field sites of these ethnographies and analysing the data generated I have aspired to the ideal of this connective mode of comparison, with qualities of one site shedding light on gaps and practices in the other.

Adding a multi-sited dimension to an already comparative project created another level of complexity, further requirements for conceptual translation and connections. It is important not to conflate multi-sitedness and comparative research, either in the sense of attempts to build a comparative/connective mode of analysis or the orthodox understanding of the term. A multi-sited study is by default comparative, but comparison does not require multi-sitedness. According to Marcus (1998:90-95), multi-sited ethnography follows the same people, objects, narratives, processes, metaphors or conflicts across several field sites which form part of a coherent setting of similar places. For example, a study of internal promotion and hiring within three mid-sized firms, or an ethnography of British women's experiences of IVF in three separate clinics would constitute multi-sited research. In theory, it could be argued that a telephone survey conducted in three London boroughs is multi-sited, but the term is usually reserved for qualitative work. Multi-sitedness is a technique, like participant observation, interviewing or surveys, while comparison is a mode of analysis. It is a tool that extends explicit comparison to the local level, a strategy compatible with Strathern's connective project because multi-sitedness represents an extension of empirical and analytic possibilities in the field.

The Uses of Eccentricity

This study could have been conducted differently, but methodological and technical changes would have produced a very different project. For example, I could have designed a comparative case study, but the standard uses of case study methods are incompatible with the aims of this project. Case studies are usually situated in a detailed historical context (Orum, Feagin and Sjoberg, 1991:12) and seek causal explanations in the form of dependent processes producing a given outcome which is the unit of the analysis (Ragin, 1987:14). Alternatively, I could have designed a

mixed methods study using surveys administered online in combination with limited participant observation to provide material and context for generating research instruments. However, this approach would not have generated rich, nuanced data about subjective understandings and framings of experiences. Such a design would have failed to provide adequate materials for my analytical aims. However, if the goal had been to demonstrate or test specific links between discrete, fine-grained concepts or beliefs, such a design might have been appropriate.

Finally, this research could have taken been a single ethnography, which would have been less labour intensive. This design would have generated data suitable to research aims, but not with sufficient variety or scope. This is not an objection in the name of validity or reliability, but a recognition of the limited nature of virtual worlds as field sites. The sociological and anthropological conceptualisations that this study hopes to bring into conversation with lay theorising, are built upon interpretations of experiences, events and knowledge drawn from diverse settings spread over broad swathes of time and space. As such, these theories incorporate a staggering number of practices from ceremonial exchanges such as kula and potlatch (Malinowski, [1922]1932; Mauss, [1954]1970; Weiner, 1976) to trading video game cheat codes (Sun, Lin and Ho, 2003) and erotic photos (Slater, 1998, 2002). Individually, FFXI and SL are a bit too limited in comparison with the analytical possibilities represented by this wealth of data, but together they cover a wider range of experiences; each setting extends the other.

Now that we know what this study could not have been, it is time to turn to what it is. This project is a comparison of two multi-sited ethnographies that uses data generated thereby to bring scholarly theories of economic life into dialogue with lay theorising. Fieldwork consisted of participant

observation, qualitative interviews – one-on-one conversations and panel interviews – and analysis of corporate and fan-made texts. These primary methods were supported by visual materials such as screen captures, images suggested or created by participants, and supplementary fan-generated media and texts recommended by respondents. Participant observation was a better choice than interviews alone because of the technical nature of these settings. To speak with interviewees about their virtual economic lives it was necessary to master local jargon and terminology. From a pragmatic perspective, participant observation was also needed because there was little locally relevant literature available to provide an understanding of these settings. The only way to find out about them was to visit. Participant observation provided a deeper appreciation for actors' doings in each site and generated valuable context for interview questions while aiding interviewee recruitment, especially in Second Life. Adding multi-sitedness to participant observation was a depth and breadth consideration. Both FFXI and SL are tightly bounded simulations, and can be understood, from a certain point of view, as artefacts. Those who use these worlds engage with them in myriad ways, opening up a variety of readings and styles of play. Participant observation was spread across several sites in each setting in order to acquire data about a greater range of participants interacting with the virtual world because groups within the same setting did not always share interests and emphasised different aspects of economic life. For example, entrepreneurs in Second Life – especially those with small businesses – have distinct conceptualisations of economic value and exchange from those of land barons or transient residents. Multi-sitedness also made participant observation easier. It was not always possible to log in at the same time everyday, nor did participants adhere to a consistent log-in schedule, so having several sites and social groups increased the likelihood that informants would be online or that there would be an event or activity to attend.

Qualitative interviews were used in conjunction with participant observation as primary data sources. These conversations provided accounts of engagement with and experiences of inaccessible settings that were particularly relevant for lay economic theorising. For example, linkshell leaders act as gatekeepers of extremely scarce commodities and make decisions everyday about commodity and resource allocation that are based on valuation of goods and collective wealth. These decisions are based on ideas about what is necessary for players to enjoy the experience of intense play in FFXI – in other words, what is needed to live a “good” virtual life. Spelling and punctuation errors in transcript extracts have been left untouched except when correction is needed to make the text intelligible. Abbreviations, used extensively by respondents, are explained in footnotes or expanded in transcripts when necessary. I have chosen to use some common abbreviations – AH for Auction House or SL for Second Life – throughout.

Final Fantasy XI is split into over thirty independent server clusters, and participation observation was limited to Omega and Delta servers. To learn more about other servers, group interviews were used to supplement one-on-one discussions. These panel interviews involved respondents who regularly played together – many of whom were friends outside FFXI as well – to re-create their in-game participation. Lively debates were sparked when respondents advanced opinions that were perceived to be at odds with their in-world behaviour by their peers. These discussions sharpened participants' framings of their experiences, at least in theory. In practice, there were moments when acting out the world took precedence over interview responses, and at these times the task of moderation was taxing and frustrating, but the data generated was well worth headaches endured. These sessions also compensated for the extra richness of one-on-one interviewing in

Second Life, where it was possible to see and interact with objects and places of significance.

Analysis of corporate and fan-produced media added further depth to understanding what living a Second Life or being an adventurer in Vana'diel means. A large body of fan-made texts online address economic life in each world. Much of this writing was concentrated in the blogs of influential citizens or virtual newspapers in the case of SL, while FFXI players preferred forums and bulletin boards for discussion. These texts included dozens of discussants with divergent backgrounds and play styles. Conflicts documented in forums and blog comments were useful in understanding fault lines and points of agreement within and across groups in each setting. Corporate press releases and development updates are the background against which these community discussion are conducted, so it was necessary to be familiar with those materials also. Staying up-to-date with forums and the SL blogosphere was crucial in identifying current debates, and interview questions that drew upon these hot topics elicited rich responses.

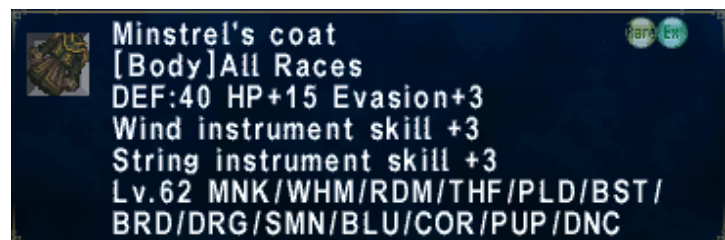
A variety of screen captures, or virtual photographs, taken in Second Life and Final Fantasy XI have been used as illustrations. Screenshots from Second Life were collected and used with residents' consent. When residents have not provided consent for an image, but a visual representation is useful in conveying the sense of their comments, an approximate or similar image has been substituted, and identified as proxy images when used. From FFXI, I have used screenshots and images of specific items. Some images, mostly information graphics, were collected under a Creative Commons licence from FFXI wiki project FFXIclopedia. In-world images were taken in busy sites or donated by participants or, in the case of smaller groups and individuals, captured and used with players' consent. Some of these images give an impression of

places and people, but others are needed to convey information implicit in respondents' comments.

Final Fantasy XI has a highly complex, structured material world, and players commit a tremendous amount of this knowledge to memory. Implicit in all interview transcripts, particularly group discussions, is a deep level of shared knowledge about FFXI's material world as a system of objects, actions and constraints. To outsiders, the amount of information is simply staggering, yet understanding the qualities of objects is tremendously important because players make extensive use of this knowledge in their theorising. Fortunately, all objects in FFXI have an information graphic that describes their qualities, which players can access by examining the item. I have used many of these images are used to illustrate items respondents discuss, but these pictures are unintelligible without some explanation.

This Minstrel's Coat information graphic provides condensed information about the item. The

object is a piece of armor worn on a character's torso, as indicated by the "[Body]" tag, and can be worn by any of



FFXI's racial groups – Humes, Elvaan, Galka, Mithra and Tarutaru – as indicated by the “All Races” tag. In the upper left corner, the picture of a brown coat depicts the garment when worn.

The coat provides the following bonuses: defence (DEF) 40; 15 hit points (HP); and +3 to Evasion.

This item also provides specific bonuses for Bards (the only combat job that uses musical

instruments): +3 skill levels in Wind and String instruments. Only characters level 62 (Lv.62) or

higher whose job is listed – as indicated by a series of three letter acronyms, each one a different

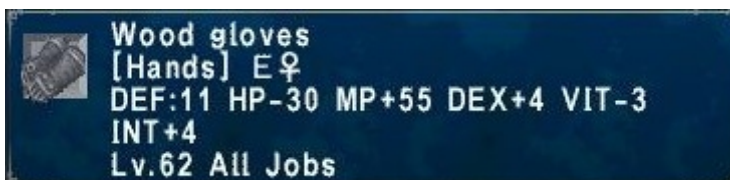
job – can wear this item. Finally, this item is Rare (yellow circle), meaning players may only own

one at a time, and Exclusive (teal circle), which means it cannot be sold or traded between players.

Information graphics for equipment generally follow the same pattern as the Minstrel's Coat, detailing level requirements, job restrictions and special bonuses conferred.

Though most equipment is not rare or exclusive, some items are restricted in different ways. For

example, Wood Gloves can only be worn by Elvaan females. These gauntlets provide 55 extra magic points, increased



dexterity (DEX+4) and intelligence (INT+4) but decreased hit points (HP-30) and vitality (VIT-3). As

Elvaan characters have high hit points and vitality, but very low magic points, intelligence and

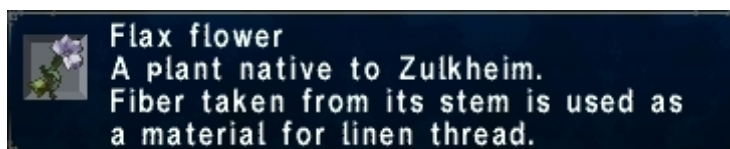
dexterity, this item compensates for those weaknesses. As Wood Gloves are neither Rare nor

Exclusive they can be traded between players. Crafting materials and consumable items have less

complex information graphics. Explanatory text on such items usually contains a hint about where

they can be found and how they can be

used. For example, Flax Flowers are



described as “native to Zulkheim”, which is a fictive region where these plants are harvested, and

indicates that Flax Flowers are used to produce linen thread.

Challenges and Unexpected Difficulties

A standard array of qualitative techniques were employed in this study: participant observation

conducted over several sites of engagement with varying degrees of intensity, which is fairly usual

in multi-sited ethnography (Marcus, 1998:84); open-ended interviews, both one-on-one and group

discussions; screen captures, which functioned as a form of photography which supplemented field

notes; and analysis of fan-produced or recommended and corporate and popular media about each setting. This section will provide an account of how research was carried out. Setting will be discussed separately because differences between participants and modes of engagement precluded conducting research identically in SL and FFXI.

During participant observation the question of informed consent, or at least avoiding an approach that might be regarded as sneaky, especially with regard to observation of public spaces, was a concern. Observation was not covert. People who encountered and spoke with me were made aware of my research; however, when participant observation was conducted in busy places it was neither possible nor feasible to inform players that the observation was taking place. Though this approach may seem to be at odds with accepted research practice, it is not against the spirit of ethical social research. Whenever participant observers choose an ostensibly public place as a site for research, there is always a question of whether such research can be conducted ethically because those under observation have not given informed consent. Lofland and Lofland (1984:12) argue that watching people in public settings may be ethically uncomfortable for some social researchers, but the nature of the setting is such that the people in it expect to be observed by others. In both FFXI and SL anyone who examined my avatar or character would receive information about this research along with the address of the project website, which incorporated features such as a forum, chatbox, news items, a project blog and downloadable materials such as consent forms, information sheets, presentations and papers.

As in the everyday world, public and private spaces are mixed in SL and FFXI. Attempting to shoehorn an entire virtual world into one category of space ignores its diversity and myriad ways

players appropriate or make use of game spaces. I have made conscientious efforts to be sensitive to local public/private distinctions by avoiding engaging with settings that are understood to be private in the context of research, such as brothels, corporate headquarters and private clubs in SL, and small linkshells set up for personal communication and quiet areas used for private talk in FFXI. Though private spaces were part of fieldwork, and those experiences inevitably inform any attempted analysis, I have refrained from including accounts of interactions observed and conversations participated in or overheard in such spaces. These efforts were made easier by the way communications are structured in SL and FFXI. Certain communications channels which can be heard by anyone near the speaker are understood by their very nature to be public. Unlike the everyday world, where participants must speak aloud to be heard, and the possibility of being overheard almost always exists, citizens of virtual worlds have a choice to take their conversations to channels that no one else can hear.

A final unexpected complication was a rather pronounced personal dislike of SL. Many features of the virtual world were distasteful: hypercommodification; expectations of female residents' sexual availability or willingness to undertake sex work; a notion that female-presenting avatars should be sexually pleasing objects for a male, heterosexual gaze; the pervasiveness of heterosexist, Orientalist transhumanist ideologies; and difficulties finding residents willing to talk to a stranger. Unwanted sexual advances in SL, some of which were aggressive and repeated, and highly aggressive verbal interactions, required permanent muting, or prevention of any communications, from particular residents. After such incidents I felt quite nostalgic about the violent "fag discourse" (Pascoe, 2007:54) of FFXI. At least that talk did not take specific individuals as its object of violent, degrading or sexual intent. As a person who dreads shopping expeditions, the consumer fantasy

that animates much of the shopping, trading of freebies and accumulation of goods in SL was also less than inspiring. I have tried to present a fair comparative analysis, but Second Life is less structured and thus often lacks what the more structured world of FFXI has in abundance, whether this is monies, modes of exchange or markets and marketplaces. This lack is not a shortcoming on the part of SL so much as a very different perspective on what users desire or need in a virtual world.

Research in Final Fantasy XI

Some of the fieldwork in FFXI used for this study was conducted under the auspices of previous research at the University of Calgary, specifically the first participant observation period and much of the document and media analysis. Participant observation was conducted intermittently with varying levels of engagement from late August 2003 to October 2005; from May 2006 to July 2008; and again from September 2008 to June 2009. The latter period of fieldwork was spread across two servers, as I was invited by a J, a key informant, to join his linkshell on Delta server and meet interviewees in-world. Field work consisted of taking part in scheduled activities and events with various linkshells; participating in external voice conversations; posting on private and public message boards; helping and talking with linkshell members; and joining pick-up parties. The last field work segment, with J's linkshell, allowed further contact and follow-up with some interviewees.

Players with whom I had personal contact, that is to say they were not simply seen while running through a public area, were aware of my reason for being in FFXI and were directed to a now defunct website that was hosted by the University of Calgary. This website described the previous research project in detail and featured updates on recent activities along with consent forms,

downloadable information in the form of leaflets and posters, links to the Conjoint Faculties Ethics Board of the University of Calgary – which approved that study – and the sociology department of that institution. The website address was also available in my character's bazaar comment, a small block of text that is visible when characters use the /check command. Upon moving to London and beginning this study at the London School of Economics, a new website was produced and the URL in my character's bazaar comment was changed, directing interested parties to the new website. Juggling participation in high intensity activities and note taking was sometimes quite a challenge. Field notes consisted of short jottings and, during quieter periods, more lengthy writings. Rough sketch maps and screenshots were used for additional reference. After logging off, these raw materials were used to write up more detailed notes. In conjunction with a field notebook, I also kept a journal about more personal aspects of fieldwork.

Thirty-five one-on-one interviews were conducted with instant messaging clients – MSN, AOL and Yahoo! messenger clients along with Google Chat – and one took place through email.

Interviewees were provided with an information sheet and the project website address.⁵ Signed consent forms were received for all but three interviewees, who preferred to give consent via email.

Participants were recruited from previous research, recent participant observation and through snowball sampling from those contacts. Respondents were between eighteen and forty-five, from a variety of countries including the United States (including Puerto Rico), United Kingdom, Canada, Sweden, Australia, Germany, China and Japan, but all interviews were conducted in English. As participants were often in different time zones, discussions were sometimes held during times that were early morning hours for me, to accommodate respondents' workday schedules. Seven group

⁵ See Appendix A for copies of information sheets, consent forms and interview schedules for both sites.

interviews with three to five people each were held on a private Internet Relay Chat server accessed through interviewees' web browsers using CGI:IRC, a Perl/CGI application. By using CGI:IRC respondents without an IRC client already installed could easily participate without the difficulties of learning unfamiliar software. Setting up a private server prevented the possibility of random interruptions from non-participant channel surfers. A bot was used to transcribe these interviews by generating logs of the discussions. Generally this approach worked very well, but one group interview was moved to an instant messaging client because of server connectivity problems. Juggling time zones to schedule these interviews sometimes resulted in confusion, but in all but one of the interviews participants arrived on time.

Transcripts of both group and one-on-one interviews were run through a script and anonymised. Time stamps, garbage characters and noise generated by extracting logs from the automated transcription of each instant messaging client were removed. Interviewee's names were also replaced with pseudonyms. Transcripts were reviewed and coded, with passages containing similar themes cross-referenced. Clusters of opinions, or common approaches were identified and put aside for examination in conjunction with Second Life data. On a few occasions participants were approached for clarification of ambiguous comments. Media and documents analysed included posts from the two very popular forums, Killing Ifrit and Allakhazam, each of which has hundreds of thousands of members. Fan-produced media included music videos, short films, recordings of exploits in-world, fanart and personal blogs. Much of this material was not directly relevant to economic practices but provided valuable context for players' discussions of the social relations and interactions in which their economic lives in FFXI were embedded. Analysis of texts was not overly sophisticated as I was not trying to subject most of these materials to a critical

analysis. The exception to this rule were certain forum threads about current affairs of economic significance or stories of scams (inequitable exchanges). Annotations on specific items were incorporated as separate fieldnote entries.

Research in Second Life

Participant observation in Second Life consisted of approximately two years and five months of engagement spread across multiple sites with the same varying intensity as experienced in FFXI. Activities in-world included visiting research sites and participating in the formal groups attached to them; and attending special events, from pajama parties to business lunches, treasure hunts to academic lectures. In Second Life, anyone who finds my name in a search or sees my avatar in-world can find out about this research because it is mentioned in my profile. In the profile tab labelled "Interests", social research is included in the Other Interests field, while the Webpage tab contains a link to the project homepage. Most importantly, the First Life portion included the following text:

I'm a graduate student studying economic life in SL, things like gift giving, buying and selling, making (and spending) Lindens. Currently, I'm writing my thesis. Feel free to IM me or send notecards for further details:
<http://forum.style-type.com>

This summary was changed to reflect fieldwork progress. The field limit of 500 characters restricted the amount of information that could be communicated. As residents frequently read the profiles of strangers, it is fairly likely that anyone who has been in the same general area as me in Second Life has some passing knowledge of this project.

Field notes consisted of jottings along with descriptions of avatars and places. Constant

conversation required much typing, which precluded lengthy transcriptions or descriptions. Many screenshots were taken to supplement the sketchy quality of initial note taking. After logging off these rough fragments were re-written as more intelligible and descriptive fieldnotes. The Second Life client has a logging feature, which were very useful in this re-writing process. I experimented with video capture, but the results were not useful. Keeping a personal journal during fieldwork was helpful in thinking through my own negative reactions to aspects of SL.

Thirty formal one-on-one interviews were conducted in-world in a variety of settings including interviewees' homes or places of business, gardens, shops and even a construction site, in both English and French with respondents from Britain, France, Belgium, the United States, Russia, the Czech Republic, Italy, Spain and Australia. One of the advantages of interviewing residents in their own spaces and in Second Life itself was being able to engage more directly with the objects and places of importance or that were mentioned in conversation. Some interviews were even multi-sited, with interviewees moving from place to place so respondents could show locations or objects of interest. For privacy, interviews were usually conducted in private messages rather than in public chat. This also facilitated transcription because the Second Life client creates cleaner, less cluttered logs of conversations held in private channels than those in public ones. Informed consent was problematic in Second Life. The information sheet prepared for FFXI interviewees was considerably shortened and condensed, as the original version was not successful. Absolutely no one read it, and many of the people to whom it was given did not seem nearly as excited about participating afterwards. The Internet meme tl;dr (too long; didn't read) was used to describe the information sheets by most respondents, even after the note was reduced to two short paragraphs. Second Life residents prefer interaction rather than passive reception of information, and above all,

texts or lines of dialogue must be short. Instead of providing information through a document that prospective participants could read at their leisure – the mode of operation preferred by FFXI participants, who tended to reply some time later with technical, ethical or conceptual questions – research details were transmitted through conversation. The extra time required for interviews because of this was considerable, but this method of handling informed consent created better rapport with residents. Participants were wary of consent forms, as boundaries between Second and First lives are very jealously protected. Had I insisted upon using signed consent forms, the already formidable task of recruiting participants would have been even more difficult. Scheduling also proved challenging, with only seven residents keeping an agreed interview time. Tracking down and chasing interviewees became one of the most time-consuming and frustrating tasks of this project. Waiting online for three hours for someone at five in the morning – which was not an uncommon occurrence – was irksome, and compounded my dislike of doing fieldwork in SL. Transcripts were anonymised by hand, as logs generated by the Second Life client had much less noise than those extracted from instant messaging software. Noise in these transcripts was not standardised, so a script was been ineffectual. Analysis was similar to that of FFXI interviews.

Fan-produced media for Second Life is different from that of FFXI. As SL does not have a coherent fictive universe, the opportunities for textual poaching (Jenkins, 1992) were different from those of FFXI. Rather than draw fanart, write fanfiction or produce music videos outside the virtual world that draw upon its fictive materials, Second Life residents were more likely to use the world itself as a medium for textual poaching, importing images and themes from television shows, video games and books. Media generated by fans tended to be blogs about experiences in Second Life, photo montages or collections, or news portals relevant to a certain activities in-world. These materials

were more relevant to economic life, especially product review blogs and those authored by business people. Such texts were more readily subjected to analysis as ethnographic materials and provided further context for participants' comments in interviews. Linden Lab press releases were also important as the background against which Second Life's public debates – pursued in blog comments and postings and the pages of virtual newspapers – took place.

Research Design and Practice

The aim of this chapter was an account of how field work was conducted and what came afterwards. Of necessity, details of participant observation have been omitted. Some of these anecdotes were colourful, such as a truly unique conversation with the infamous mandog of sixty-nine penile appendages in Second Life. Some were poignant, like Herald's going away party in FFXI when he decided to quit the game. Some were mundane, like staying awake for thirty-six hours to conduct one-on-one interviews and panel discussions with respondents around the globe. The challenges of this project were not so much the field work – despite regular obstacles and annoyances in SL – which was enlivened by a range of respondents, from grievers and scallywags to upstanding virtual citizens, but in analysing the data and condensing a large amount of relevant material into a relatively small dissertation. Balancing translation and comparison was the most difficult aspect of analysis, and the next chapter illustrates this challenge quite well. Economic value is a slippery term, but participants distinguished between different forms of value and clearly articulated distinctions between them. Lay theories of economic value introduce many of the key themes used on conceptualisations of exchange, money and markets. The next chapter serves as an introduction to the major themes in interviewee's framings of economic life, especially the importance of materialities and connections between people and things.

Chapter IV: Economic Value

Respondents' theories of economic value introduce themes that will appear in subsequent chapters: systematic categorisations that produce working models in miniature of economic practices or institutions; materialities and connections between people and things; and negotiated economies of politics and practices. In both sites participants framed economic value in terms of how it is produced and reproduced inside each site and in a wider context which includes these worlds as objects of consumption. Respondents' economic valuations considered production techniques of objects, attending to some forms of labour rather than others. In Second Life, production techniques are evident in forms and functions of items, while in FFXI players use data on item generation probabilities and requirements to assess the difficulty of creating or acquiring goods. In FFXI, tensions between designers' intentions and players' desires are highlighted in theories of economic value, with game structures and restrictions shaping valuation through item generation conditions. For these lay theorists, price is not synonymous with economic value, and economic value is part of a generalised form of value. Participants juggle values and modes of valuation to assemble bundles of comparable goods. Together, these qualities in lay theories of economic value diverge from contemporary framings of economic value in Western consumer societies in economics (Loewenstein and Pralec, [1992]2007:434; Hoch and Loewenstein, 1991:493), but are close to material culture (Miller, 1998, 2008) approaches.

In some respects, these lay theories are compatible with classical sociological perspectives, particularly Simmel ([1907]1978) and Marx ([1867]1906). Objects in both Second Life and Final Fantasy XI are subject to valuations that rely upon an interpreter's knowledge of and appreciation

for various forms of virtual labour, as suggested by Marx ([1867]1906:44-46) – a curious finding in contemporary service-oriented consumer economies. In FFXI, players draw upon shared knowledge of goods and their qualities to assemble hypothetical bundles of comparable items to assess an object's value. The role of desire and resistance (Simmel, [1907]1978:75-76) in assessments of economic value is nuanced for players of FFXI, who are aware that conditions for the creation or generation of objects are beyond their control and part of profit-making strategies of FFXI's owners, Square-Enix, while in Second Life, desire can overpower other value assessments.

The word “value” is semantically dense, found in discussions of morality, religion, ethics, economics and in Saussurean descriptions of difference and relationships between things (Graeber, 2001:2,14-16). Porous boundaries between economic and other forms of value generate further terminological slippage. Lay theorists distinguished or disentangled various forms of value. For players of FFXI, economic value is a separate category from price and from a generalised notion of value; Second Life residents make similar distinctions. For citizens of both virtual worlds, economic value and a wider, more general notion of value were closely related, but not synonymous. This generalised conception of value takes on the role of a deep structure (Chomsky, [1957]2002:15-17): a concept that brings together, or works in conjunction with, other concepts to convey meaning. Generalised value can include a number of subjective and individualised qualities such as taste, which can be expressed as aesthetic preferences, but also resonates strongly with discourses of quality used by residents in SL and sentimental attachment, a prominent theme amongst players of FFXI. Economic value is a smaller concept of variable importance. If generalised value is a puzzle composed of multiple parts, economic value

constitutes one of its pieces.⁶ Though generalised value and economic value are connected, price stands alone and is sometimes considered irrelevant to both concepts. Final Fantasy XI interviewees explained that price is an unreliable guide or expression of economic value. This position is compatible with Appadurai (1988:14), who argues that in times of duress price and value are only weakly related, and with Marx ([1867]1906:4-5,9), for whom price is “the monetary expression of [exchange] value” ([1848]1935:35), though incompatible with Simmel ([1907]1978:125). Repeated cycles of inflation and deflation in FFXI have been discussed extensively on fan sites. These discussions provide players with ready-made talking points and empirical examples. Residents of SL also separate price from economic value as prices and item quality vary across the grid.

For players of Final Fantasy XI, economic value arises through comparison and ordering of things (Simmel, [1907]1978:59). However, economic value is not limited to circulating commodities; it includes non-circulating objects and virtual worlds themselves. Pricing and economic valuation of non-circulating objects – a phenomenon that is more relevant to FFXI than SL – was highlighted by participants as a limit case in their explanations of economic value. For users of FFXI in particular, the virtual world itself as an object of consumption is a crucial element of local conceptualisations of economic value. Players are not dupes and often begin with an understanding that virtual worlds – though they contain digital objects to be consumed – are products designed to facilitate certain kinds of consumption which, in turn, generate profits for their owners.

⁶ Costs, as explored in chapter five, are another fragment of generalised value.

Theories of Economic Value

When writing about economic value there is a temptation to return to first principles, to lay out a metaphysics of value, to disentangle all the ties that bind man to man, man to things. Such an endeavour, no matter how noble, is beyond the scope of this chapter. Instead of tracing a genealogy of value from Aristotle's *Nicomachean Ethics* ([unknown]1954) to the present day, only theories that are suggested by respondents' lay theorising and ethnographic material are covered here. Ideas that most closely evokes key themes in lay theories are found in classical social theory: Simmel ([1907]1978, [1907] 1971, 1910) on exchange, money and value; and Marx's ([1867]1906, [1848]1935) labour theory of value. As for an economist's perspective, the discipline of economics has expended much effort in the excision of value as an analytic category. Though value has been transmogrified into a series of economic measures and tools over time, economic value itself remains unproblematised, a peculiarity that will be briefly discussed below.

Participants' lay theories featured resistance, desire and the importance of exchange – or its absence – which are key themes for Simmel ([1907]1978:72, 75, 75-76, 85). Simmel ([1907] 1978:88) argues that economic value is located in exchange:

No matter how the two objects A and B have become values, A becomes an economic value only because I have to exchange it for B, and B only because I can acquire A in exchange for it.

This moment of exchange creates what Simmel ([1907]1978:80) describes as an “intermediate realm” between human desire and its satisfaction through objects. Yet he also writes about a more generalised value (Simmel, [1907]1978:59-61), which is “the counterpart to being” (Simmel ([1907] 1978:60) – an intrinsic component of human perception of the world. This generalised notion of value arises through human attempts to order and make sense of the material world (Simmel,

[1907]1978:60). Through these subjective valuations, judgements of generalised value, human beings generate a subjective value-order from motley assemblages of objects, qualities and ideas in the world. This aspect of Simmel's thought is important in studies of material culture, and has been expanded upon with the concept of regimes of value (Appadurai, 1988:15) and the aesthetic (Miller, 2008:296).

This subjective world of desire and cosmological ordering is concerned with generalised value, not economic value. According to Simmel ([1907]1978:79), though human experience encompasses a myriad of values and valuations, it is *only* within the realm of exchange that *economic* value is produced. This interpretation sequesters economic value, folding it inextricably into the very fabric of economic life, as it becomes dependent upon exchange itself (Simmel, [1907]1978:79-81). At the core of this understanding of economic value lies an assumption that economic value is objectified through exchange:

In exchange, value becomes supra-subjective, yet without becoming an objective quality and reality of the things themselves. Value appears as the demand of the object, transcending its immanent reality, to be exchanged and acquired only for another corresponding value. (Simmel,[1907]1978:78)

Though sacrifice and desire influence individuals' valuations, the process of exchange in what would today be called Western capitalist societies – Simmel ([1907]1978:79) calls them “fully developed economies” – “removes both objects from the sphere of merely subjective significance” (Simmel, [1907]1978:79).

Within the emotional landscapes of our inner lives, forms of value intermingle and blend into one another. From this perspective, when we enter into exchange – entering the realm of economic life

– those subjectivities are disentangled. According to this understanding of exchange and value, price is both an expression and equivalent of economic value (Simmel, [1907]1978:94, 95). Subjective desires, ties to people and things are excised, or at least sidelined, and economic value becomes an issue of comparative values in exchange, as described in some contemporary work on material culture (Appadurai, 1988; Myers, 2008; Thomas, 1991). However, such research explicitly rejects the equivalence of economic value and price (Appadurai, 1988:14) – especially in times of economic uncertainty. Instead, this body of literature embraces a plethora of possible valuations and their influence upon economic life (see also Miller, 1987, 1997, 2008 for a similar approach without reference to Simmel), whereas Simmel's position is clear: within the sphere of exchange, only economic value applies. For Simmel, economic exchange involves a separation from other forms of value, which is objectified and expressed by price, a phenomenon made possible by money. Studies of material culture that make reference to Simmel's work (Appadurai, 1988; Myers, 2008), though they may be true to the general spirit of his sociology, with its emphasis on intimate details of social life, appreciation for ambiguity and human sentiments, are somewhat out of step with Simmel's analytical focus in The Philosophy of Money.

Annette Weiner (1976; 1978; 1979; 1992) offers a robust challenge this Simmelian construction of economic value, though she does not deal directly with Simmel, but with a different body of literature that incorporates similar assumptions (Bohannon and Bohannon, 1968; Lévi-Strauss, 1969; Malinowski, [1922]1932; Sahlins, 1974). Weiner (1992) argues that inalienable objects influence valuation of goods that are exchanged. Such inalienable possessions not only confer status and rank through ownership, but also help centralise and consolidate power (Weiner, 1992:18, 40, 89). The movement – or lack thereof – of these things is bound up with political

manoeuvring and power struggles (Weiner, 1992:46), making power relations an important element of value. Though her work may be concerned with cultures in Melanesia and Australia – Maori feathered cloaks, kula valuables and networks of ceremonial exchange – and economic value does not necessarily figure in ceremonial exchanges, these practices constitute highly organised systems of exchange in which actors think and behave strategically with respect to value (Weiner, 1992:141).

Marx ([1867]1906, [1848]1935) presents another view of economic value. It is strange that studies of material culture turn to Simmel's conceptualisation of economic value formed in a moment of exchange when Marx's labour theory of value provides a way of thinking about the concept that makes explicit reference to the importance of “material relations between persons and social relations between things” ([1867]1906:46). The importance of Marx's labour theory of value should prove no surprise considering the slogan of Second Life – “a world created by its residents” – and the emphasis on a “player-driven economy” in Final Fantasy XI. Respondents from both field sites foregrounded knowledge about production and labour or creative action required to generate commodities in accounts of economic value. Though Marx recognises other forms of value – exchange and use value, a general and a money form of value ([1867]1906:4-5,9) – they arise from commodity fetishism, the illusion that value is a quality of commodities themselves ([1867]1906:43-51).

Value is not an intrinsic quality of objects, but is created through human labour (Marx, [1867]1906:45,70), thus a generalised form of human labour is the penultimate source of value (Marx, [1867]1906:44).

. . . no matter how different the kinds of useful labour or productive activity may be, it is a physiological fact that they are all functions of the human organism, and that every such function (no matter what its content and form may be) is essentially the expenditure of human brain, nerve, muscle, sense organ, etc. Secondly, as concerns that which underlies the determination of the magnitude of value, namely the duration of this expenditure, or the quantity of labour, our senses enable us to distinguish between the quantity and the quality of labour.

According to this extract, each person has the capacity to discern how much labour was used to create commodities. The “content and form” of labour are generalisable, they can be stripped down to a basic “expenditure” of energy by a human being, and it is this very commensurability of labour that facilitates the valuation of goods in money (Marx, [1867]1906:70). However, labour quality and standardisation remain problematic because such judgements are dependent upon individuals' knowledge. Handicrafts present a humble illustration of this problem. It is not at all unusual for a person to spend many hours creating a small gift – a crocheted scarf, hand knitted socks, or a wooden toy – only to have the recipient respond with less enthusiasm than expected. Perhaps the colours are not just so, or the design is not exactly to the recipient's taste, or the object seems too modest, too insignificant, for the occasion. No matter what the flaw might be, the person receiving the gift is often unable to “distinguish the quantity and the quality of labour”. Such conflicting valuations of an object arise because the recipient and giver have different understandings of labour embodied in an object.

There are some qualities of labour which people in contemporary capitalist societies can more easily understand than others, and some to which they attend while others are ignored or mystified. Selective attention in reading labour embodied in objects, or placing emphasis upon some qualities of labour – duration, skill, difficulty, danger – rather than others, is crucial for understanding economic valuation in both sites. In FFXI, forms of labour are easily understood; fan

sites explain the intricacies of item generation and this knowledge is widely circulated and deployed in respondents' explanations of economic value. For residents of SL, there are tutorials online and in-world for those wishing to learn building or scripting, but this information is not well circulated or communicated. These conditions facilitate a mystification of production in Second Life; though a resident may know what techniques were used to make an object or effect, her inability to replicate it adds mystique to production. This corresponds to contemporary fascination with the "hand crafted", "traditionally produced" or "artisan made" in everyday life, from Prêt sandwiches to Carling beer (Houtman, 2010). In virtual worlds there are also fewer types of labour to understand than in everyday life. A narrower scope of possible techniques for production facilitates respondents' production-oriented interpretations and economic valuations.

Economic theories of value are thin on the ground in this chapter. Though analytical tools exist in economics which may use the word "value" in their name, these should not be confused for generalised conceptualisations of value. Since the marginalist revolution value as a generalised category has become peripheral for economics. Menger ([1871]1976) and Böhm-Bawerk ([1888] 1891) refocused economic analysis on margins, or the utility of one more unit of a commodity rather than commodities in general. In solving the paradox of value, the marginalist revolution represented the beginning of the end for economic value as a conceptual category in economics. Economic value moved from a realm where measurement was possible – man hours of labour, cost of materials, transportation and capital, prices and exchange value – to an internal, subjective world that defies objective measurement. It is only a very short step from subjective theories of value (Taylor, 1980:26) to individual preferences as a guiding principle of economic activity. It is not novel to point out connections between methodological individualism, subjective theories of

value and the development of individual preferences as a crucial idea in economics. However, the consequent erasure of value as a theoretical object or category in the discipline is sometimes overlooked.

Producing Value in Final Fantasy XI

Relationships between things, people and assessments of value, both economic and otherwise, are consistent themes in FFXI players' discussions. This network of connections between persons and objects is not limited to commodities circulated in the fictive world of FFXI. Interviewees explained how economic valuation can be applied to non-circulating objects, with emphasis on labour and time investment. Respondents also stressed knowledge about production in assessing relationships between things, and how this information is disseminated through fan sites.

Connections between labour required to produce an object and its power – a relationship that players described as the result of intentional design decisions by game developers at Square-Enix – were also important. Players' theories of economic value are constructed within a framework that acknowledges the strategic relevance of their own increasing time investments for the profits of FFXI's owners, Square-Enix. For most players, economic value can be understood pragmatically.

Herald, a casual player, had a succinct explanation:

It's really just a question of how much you value +1 ACC [accuracy], +1 STR [strength], +1% haste or +1 CHR [charisma].

Though Herald's words seem to have a marginalist flavour, a more nuanced reading is needed. He did not choose those attributes haphazardly. Herald's character's principle jobs are Samurai and Bard, for which he relies on equipment that enhances accuracy, strength, speed and charisma.

Though economic value is a question of how much a player desires or needs certain

enhancements, as Herald's comment illustrates, some bonuses are more salient than others.

Whether an object is economically valuable depends upon how much, and in what ways, it enhances a character's power. Crudely put, the power of some objects in FFXI is roughly equivalent to their usefulness, or utility, which varies amongst players. As most players have in-world goals that involve defeating monsters or winning dangerous battles, items that can help a character survive increasingly perilous battles are valuable.

Herald had more to say about factors that contribute to the economic value of an object:

It [economic value] also depends on where it [an object] comes from. HQ [high quality] is more expensive because it's a low chance, and HNMs⁷ or KSNMs⁸ have bad drop rates for the good stuff. Things crafted with HNM or KSNM drops are even worse!

Herald's comment contains a dense web of conceptual connections. He explains that how an item is produced has an impact upon its value, but evokes complex relationships between labour, scarcity and economic value by referring to empirical examples: HQ items, HNM/KSNM items, and items crafted from HNM/KSNM drops. Though production of high quality items can only be accomplished by skilled craftsmen, success rates are fairly low. This situation creates high economic value, according to Herald. He also highlights items dropped by Hyper Notorious Monsters and Kindred Seal Notorious Monsters. The former appear very infrequently, and the latter have an entrance fee of 30, 60 or 99 Kindred Seals, objects sometimes generated by killing regular monsters. Powerful weapons and armour are generated by defeating HNMs, some of which appear once every seventy-two hours. Items crafted with materials occasionally generated by such monsters or battlefields require even more labour and have greater risk of failure. Even if

⁷ Hyper Notorious Monsters.

⁸ Kindred Seal Notorious Monsters.

the powerful foe is defeated, the desired object may not be generated. Once the material is in-hand, the services of an experienced craftsman – whose results are not guaranteed to succeed – are also needed.

In Herald's comments three interrelated concepts are explicit: utility (or power), scarcity and labour. The centrality of these ideas in lay theories of economic value in FFXI illustrates a foundational rule in the design of game-oriented virtual worlds: the relationship between an object's power – capacity to enhance a character – and production. Skill and effort required to generate a given object increase in proportion to the enhancements it provides, creating direct links between economic value and labour. The most powerful items in FFXI – relic and mythic weapons – require years of dedication. Utility, scarcity and labour are not unexpected elements for assessing economic value, suggesting possible parallels in academic theorising from the supply and demand theory of price (Mankiw, 1998); use-value from Smith ([1776]1991); or Marx's ([1867]1906:44) labour theory of value. However, players frame these as the dominant concepts in FFXI because of a fourth, exogenous, factor: a corporate requirement to produce a profitable product. This connection links economic value within the virtual world of Vana'diel and the status of Final Fantasy XI as a service and a commodity.

Designers' intentions are a key component in players' understanding of economic value and economic life in FFXI. Shukudai, a long-term player, sums up his view of the situation:

SR: Why do you think designers make some items harder to obtain than others?
Shukudai: Because they're more powerful items, making certain facets of the game much easier. Or, just as a time sink to keep people playing the game.

Shukudai ties the strength of objects to the difficulty of, or labour entailed in, their production, but

also acknowledges that this is a design strategy, a planned “time sink” which increases customers' investment and engagement with the game. This balance between desire for more powerful or rare equipment and increasingly challenging and time-consuming tasks is a perfect crystallisation of Simmel's ([1907]1978:70-73) description of desire, resistance and economic value. There is a tension between resistance and desire which can generate value or inspire despair. Some players had a note of bitterness in their accounts of epic feats of arms and heroic battles, and others complained that some items require too much investment, too much time. Though such items may be powerful, the hurdles required to possess them create such distance between subject and object that although players acknowledge their value, these items generate feelings of frustrated misery instead of desire (Simmel, [1907]1978:72).

Neresh, a member of high performance linkshell, concurs with Shukudai that FFXI is structured to encourage escalating time investment as part of its owners' profit strategy.

they [Square-Enix's designers] always make it hard, and more things to do = more time spent in game = more time on the game = more months of playing = more money for them. its all about money for them [Square-Enix]

Neresh, Shukudai and other players of FFXI are aware that their months of epic exertions provide continued profits for Square-Enix, that evermore challenging (and lengthy) battlefields with exciting rewards are crucial components in a corporate strategy to keep customers playing and paying. Moreover, this knowledge is not only used to contextualise economic value, but forms part of the foundation of their orientation toward economic life in-world.

Though subject to periodic revisions, the economy and material world of FFXI is designed and structured to an extent that would incite envy in even the most ambitious central planning

committee. It is not possible for players to re-purpose an object, to assemble components into different objects or to reconfigure means or modes of production – though chapter seven will explore players' resistance to designers' intended practices in and uses of economic institutions. With respect to economic life, this means that relationships between objects in FFXI are fixed, as are their sources, uses, relative scarcities and methods of production. Designers set conditions of scarcity and production. Moreover, economic valuations are altered by introducing new items, changes to prices charged by non-player character merchants, modifying production requirements for pre-existing objects or tinkering with monetary supply. Such strategies have been implemented with varying degrees of success since the game's release, and are crucial for players as these changes alter relationships between items. Yet players' notions of value are not simply derived from designers' structuring of the material world of FFXI. Game designers' creations are not imagined in a social vacuum, but are guided by assumptions about what customer-players want based on feedback at yearly Fan Festivals in North America, Europe and Japan, data from testers who evaluate new objects before they are added to the game world, comments on fan sites and normative understandings about how the video game industry operates, who its customers are and what they expect. There is a reciprocal shaping of expected relationships between labour, value and item power between designers and players, but even with this knowledge, designers and players are not always able to interpret each others' intentions and desires.

When new items are added to the game world whose generation is labour intensive, players begin with an assumption that this object is powerful, thus valuable, even if its usefulness is not entirely clear. This assumption can lead to confused frustration when players' interpretations of designers' supposed intentions do not match material realities. Many interviewees had stories about such

items. Neresh provides one account:

there's an NM called Tasaijin. I forget all of the flaming hoops necessary to pop it. But once you do, if you actually get the drop, you get a hat that has nothing but negative stats. For the longest [time], people worked with the hat, trying to see if it could do anything special. I mean, it just had to, because it was so damn hard to get. However, in the end, it was just a lousy hat.

This hat subtracts ten points from evasion, accuracy and ranged accuracy when equipped.

Powerful items add between one and five points to attributes, so this is a large handicap. This situation is rendered more complex because there are some items in FFXI that appear to be useless, but under precise conditions – not noted in their item description – provide beneficial effects. The existence of such objects with latent powers lead players to test the hat, unwilling to believe that such a laboriously acquired object could be useless. It is difficult to know what designers had in mind, but this is only one of several instances where designers' intentions and players expectations do not match, and usual connections between labour and economic value do not hold.

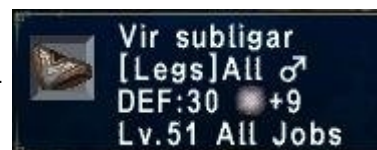
J provided an example of how designers have previously attempted to re-balance or tweak supplies of goods to decrease prices. This extract provides a snapshot of FFXI's material world and reflects a level of economic reflexivity that was quite typical.

J: for the most part though, there isn't much to purchase from NPC's, any gear from them is useless or horribly over priced and that only leaves some basic lower level crafting ingredients, mostly for alchemists or cooks

SR: Why do you think that is so? (over priced gear from NPCs that is)

J: [it] helps maintain a certain balance I'd think. I also think its generally just outdated pricing that's never been fixed or adjusted over the years, they [designers] use it as minimums in some cases though to keep a balance on the economy and certain goods

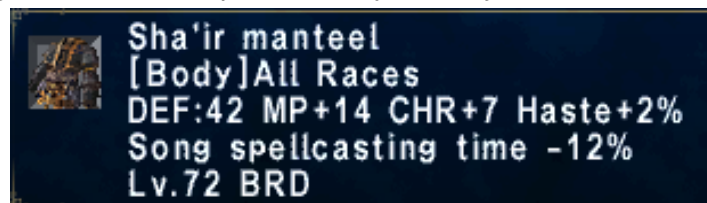
J: so like.. i'll give you an extreme example: they [Square-Enix's game developers] introduced at one point [a] subligar that was 8M[illion] to purchase from NPC's. the



result of the desynth of those was break,⁹ shining cloth, or cashmere cloth. so its like a breaking point on value here. If shining cloths or cashmere cloths get too high in value due to inflation. Instantly crafters will start burning 8M into NPCs to take money out of the economy to desynth which will create two things at once, less gil floating around, and more shining cloths bringing the cost down. so its like a check and balance to the economy

Previously, cashmere cloth was crafted from cashmere wool and threads acquired from a dragon appearing every seventy-two hours. However, the dragon provides two threads or two pieces of wool each time it is killed, and three spindles of cashmere thread make one cloth, while three pieces of wool make one spindle of thread. Before the subligar was introduced, cashmere cloth was difficult to acquire and expensive, though it was used to produce only one object: the Sha'ir

Manteel. Prices of Sha'ir Manteels were thought to be overly expensive because of these cashmere supply problems. At the



same time, FFXI was plagued by economic instability which players believed was caused by monetary supply excesses. According to J, the Vir Subligar is an attempt to resolve these issues by design. As the subligar is bought from an NPC merchant, it becomes a money sink, removing 8 million gil from circulation with each purchase. The economic value of cashmere and shining cloth remained high, because their role in producing powerful equipment remained unchanged, but prices dropped with improved supply.

From J's comments, it should be clear that "regimes of value" (Appadurai, 1988:1) are not only suggestive analytical tools in FFXI, they are empirically observable. A single object is rarely evaluated on its own merits, but rather in conjunction with items of different types and the availability of similar or more powerful goods. The economic value of an object can change

⁹ A failed synthesis attempt with subsequent loss of materials.

according to the goods used for comparison. Shukudai explains:

Looking at one item by itself isn't helpful to your wallet, you have to focus on all equipment slots when looking for what to buy next, why buy something that'll give 7% increase for 100,00gil (numbers i'm just making up), when you could get say a 6% increase for 10,000gil.

For Shukudai, the value of a ring that gives an agility bonus is not only dependent upon how that one ring is produced and its costs, but also upon what other items give an agility bonus, how they are generated, and what combination of items would give, as he went on to say, "the most bang for my buck". Only some of these qualities are structured by designers' decisions. It is Shukudai who selects which objects are relevant for comparison and which ones are not. Thus, economic value is determined by assembling things into broad conceptual categories and comparing within these groupings, not by judging a single object on its own enhancements or labour requirements.

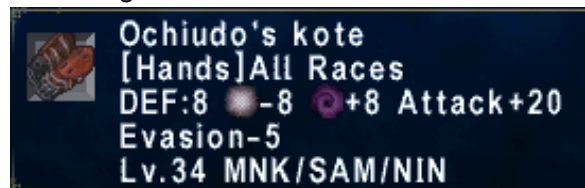
Though players articulate economic value in a way that suggests Simmel's ([1907]1978:94-95) formulation, there is one caveat: economic value is not synonymous with price. In conversation, Chikasaw, Strummer and Squiggle provided an illustration of how economic value can be assessed through comparisons of things. This topic then leads them to the falliability of price as an indicator of economic value.

Chikasaw: if two items have the same DEF and everything and the only difference is +1 STR and 20k...i tend to go with the lower cost item

Strummer: I think value is more or less constant, while price is not (as it ebbs and flows with economy changes, inflation/deflation etc)

Chikasaw: +20 attack is worth months/years of farming...but not worth whatever the highest price that damn thing [Ochiudo's Kote] got to...something like 2.4 mil

Strummer: but an Emperor Hairpin will ALWAYS be more valuable than Scale Mail, for example

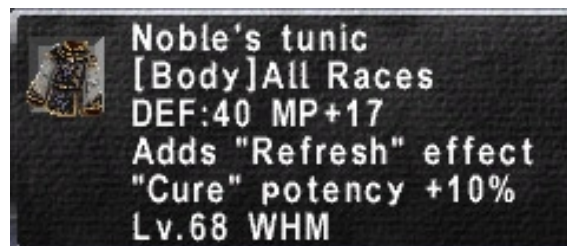


Though prices fluctuate, orders of things – and relative economic values – remain comparatively

fixed. Relationships players construct between objects are founded on labour required for their production and an objects' power. These connections, and assessments of economic value that arise from them, remain unchanged by price movements. Some items – in Strummer's example, a hairpin with agility and dexterity bonuses – will always have greater economic value than others, even when prices fluctuate wildly. This understanding of economic value, in which value emerges as part of a process of ordering the material world (Simmel, [1907]1978:60), can be partly attributed to the designed and intricately structured nature of FFXI's material and economic world and chronic problems with economic stability, the “ebbs and flows” to which Strummer refers.

Players are aware that their control over economic life in FFXI is fragile, which contributes to rejection of price as an accurate expression of economic value. Dunes, a high performance player now semi-retired after five years of involvement with FFXI, elaborates:

a 10 million noble's tunic is no different than one gotten for 1 million. Its price has changed but its value to the WHM¹⁰ has not. On the flip side, the one who paid 10 million probably feels cheated.



For Dunes, the economic value of a Noble's Tunic – a potent piece of armour for healers – does not change whether it is purchased for ten million gil or one million. Noble's Tunics are economically valuable because of bonuses they provide, labour required to acquire the components (including shining cloth from J's story), and crafting difficulty. Price is not a determiner of economic value or even an expression of it, only a rough and unreliable guide. Players also reject price as an expression of economic value because the most powerful objects in FFXI never enter its marketplaces. The most sought-after objects in FFXI – bestowing the highest statistical

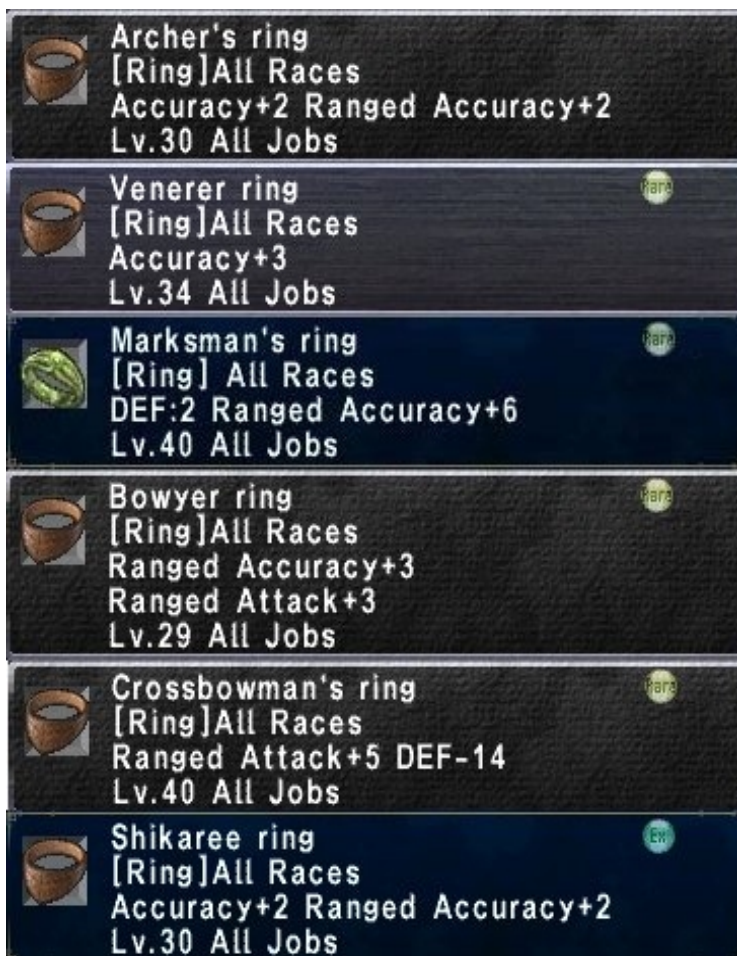
¹⁰ White Mage, a healer.

enhancements and bonuses – are non-circulating. These rare and/or exclusive (R/E) items, seem to exist outside the dense networks of trade constituting economic life in FFXI, yet they influence the economic value of circulating commodities. This connection was identified by J and Sherlock, who described what they called “a market for r/e goods” as an overlooked topic in their one-on-one interviews. However, this turn of phrase does not mean that players have parallel systems of economic value and exchange for circulating and non-circulating objects. Interviewees (including Sherlock and J) instead indicated that each player develops multiple scales of value that integrate both circulating and non-circulating objects.

“Rare” and “exclusive” are technical terms related to circulation and possession restrictions in FFXI. If an item is rare, a character may only possess one of it. If an item is exclusive, it cannot be traded, given, or sold to another character. Such objects resemble what Weiner (1992) calls inalienable possessions because they are held back from exchange, though these restrictions are beyond players' control, as designers decide whether an item is to be rare and/or exclusive. These objects represent power – a character's strength and political standing – as well as claims to power (Weiner, 1992:89) within linkshells. Though R/E items do not acquire “cumulative identity with a particular series of owners” (Weiner, 1992:33), they are embedded in heroic narratives that provide a similar patina. Such items are produced by killing dangerous monsters in epic battles involving dozens of characters. Players join high performance linkshells devoted to acquiring these goods, but there are never enough desirable commodities for all. Linkshell leaders control the distribution of wealth collectively acquired, refraining from rewarding some members while favouring others. Experienced linkshell leaders like Qtipus, J and Sherlock would argue that this behaviour is the sign of a poorly run organisation, but such practices are not uncommon. Dissatisfaction with

allocation decisions leads to conflict, exposing lines of power as the aggrieved – those who have received few rewards for their labour – are pitted against better remunerated and more influential colleagues. These incidents demonstrate that “the challenge to exchange” (Weiner, 1992:46) – labour for inalienable goods in this case – is a political one. Rare and/or exclusive goods may not circulate, but they are integrated into regimes of economic value in two ways: through their influence on the value of items in circulation; and indirectly through pricing practices which are based upon labour requirements. When new R/E items are introduced, it is inevitable that some equipment players once purchased enthusiastically will fall by the wayside, changing assessments of economic value.

The Venerer Ring provides an instructive example. When it was introduced – the ring is earned by completing a simple quest – it supplanted an alternative, the Archer's Ring, which was available from a notorious monster that was aggressively hunted. Archer's Rings were used as equipment but also as an ingredient in producing an even more desirable accuracy enhancing ring, which was supplemented around the same time by the introduction of three similar items, also all rare: the Bowyer Ring, Crossbowman's Ring and Marksman's Ring. The introduction of



four new accuracy enhancing rings, and the later removal of the Archer's ring entirely from the notorious monster (it was replaced by the Shikaree Ring, which could also be used as a crafting ingredient) solved a major source of conflict between players – competition for the notorious monster – and made accuracy bonuses more affordable by reducing the relative power and economic value of Archer's Rings. Previously there were few items available to boost accuracy, but shortly after these five rings were added, some earrings, capes and belts with similar enhancements followed.

Discussion of indirect pricing practices for R/E items generated ambivalent responses, not only because it involved pricing inalienables – which were designed to be outside the realm of exchange and price – but also because the techniques used originated with Real Money Traders. In 2003, Real Money Trading (RMT) only involved selling gil, but entrepreneurs soon started selling virtual commodities for United States dollars. However, customers wanted to buy R/E items, not circulating commodities, so Real Money Traders began offering to fight battles providing these rewards. Traders soon began selling their labour rather than simply selling virtual commodities or monies. Some Real Money Traders began pricing their services in gil as well as dollars, generating business on both ends by selling gil outside FFXI for US dollars, and selling their services in-world for gil. Selling labour appealed to some players who could not join a high performance linkshell to gain access to R/E items, or who had powerful characters. Ashira, Lodegrance and Lair explained how players adapted strategies developed by Real Money Traders:

Ashira: People pay LSeS or groups of people to join an alliance if something drops. It started really with Black Belt,¹¹ there are people who can't get the items from HNM because they will never be in an HNM [link]shell and maybe getting together a group for KS99 themselves is too much

¹¹ Equipment for Monks gained from a quest requiring objects dropped by HNMs or KSNMs.

Lodegrance: it happens, I had a LS friend that paid I don't know how much to some LS for Neptunal Abj[uration] Head.¹² They were going to trash it so he offered them like 2-3 mill[ion] or something

Ashira: Every time we run KS99 we get people standing around hoping to buy Black Belt items or at king¹³ camps you once in a while see people shouting for belt items. My LS will sell out Abj's we're just going to drop

Lair: people use to shout all the time for items in sky. all were EX/RARE but they sold them to people for prices

Ashira: we've sold A[quarian] Hands, N[eptunal] Head, etc, it's usually for those people who don't find themselves in a shell that do things on a regular enough basis. One of our most notorious, Kazuo [. . .] paid a bunch of people a ton of money for Byakko fights so he could get Haidate.

Players are ostensibly paying for the labour of their peers, and prices depend upon complexity and skill. In the scenario Ashira first describes, buying objects for the Black Belt quest, there is a direct pricing of R/E items. When these monsters are defeated, the quest items are always generated, so players offer a fee to those fighting the monster which represents a price for labour entailed in generating those objects. In the second scenario described by Lair, drop rates are not guaranteed. A player like Kazuo, who Ashira mentions, has two choices. He can stand around for days, waiting to find a linkshell whose members do not want the object he desires, and then offer money if it drops. This option, upon which some players do rely, as evinced by Lair's comment about people who "shout all the time for items in sky", presents communication and logistical problems. A player may wait for weeks, and may miss opportunities because a linkshell that could exchange their labour for gil might not speak English or hear the request. The second option is to pay for a possibility, fighting alongside every group that challenges Byakko, on the condition that he receives the Haidate if it drops.

When evaluating labour and economic values of things, players rely upon data about commodity

¹² Abjurations are inalienable objects required to uncurse powerful equipment.

¹³ Kings are a sub-group of Hyper Notorious Monsters.

production circulated outside the game world. This knowledge is crucial to construction and reproduction of economic value in FFXI and production and exchange of goods. Though some crafting recipes are available in-world, most information about materials and production is circulated and debated on fan-made websites. Players reproduced FFXI's economy on fansites in two ways. The first of these is quite direct and is exemplified by in-world Auction House price histories and the FFXI Auction House website, which uses an unauthorised software patch to track transactions in each auction house on every FFXI server in real time, storing them in a searchable database. The second involves publishing information about production on encyclopedic fansites like Allakhazam and FFXIclopedia. Auction Houses in-world – the only source of economic data players had for several years – list the last ten transactions of each item type. Though price is rejected as a measure of economic value, when players need to sell something quickly, they check price histories, whether at an AH in FFXI or at FFXIAH.com. Kaido, retired from FFXI after four years, explains:

I usually just set the price after the history otherwise you'll never get it sold... and on top of that you have to pay alot of tax each time you put up an item and if you put up an expensive item the more tax you have to pay... I think it was better when the tax wasn't so damn high

Limited storage space and rapid accumulation of miscellaneous items from monsters killed for experience points mean that players must sometimes quickly dispose of generic and heavily circulated items – low level equipment, accessories, food and consumables – to make room for more exciting goods. The prospect of “never get[ting] it sold”, especially after paying Auction House fees, is unappealing. Kaido suggests that selling something for the price previous transactors agreed upon is a useful strategy when there is little motivation to determine how the object in question figures in other players' schemes of economic value. Even though Auction

Houses do not bear much resemblance to auctions from everyday life, players' use of price histories shows a similar process of building economic value through consensus (Smith, 1989:4). Instead of consensus formed through competitive bidding culminating in a contract to exchange on the auction floor, consensus about price is reached by agreeing to boundaries established by previous transactions. Selling petty commodities in the Auction House was the only context where price was accepted as a reasonable approximation of economic value, but only because the objects involved are not overly valuable.

This way of reproducing economic value presents a chicken-and-egg problem: someone must set the first price, someone must make an initial assessment. In such cases, players rely upon fan sites. Kerri, member of a high performance linkshell, was the first person on Omega server to acquire a pair of trousers with evasion and enmity enhancement. She walked onto a barge, happened to see an notorious monster and defeated it. What she did not know – until she checked on the Allakhazam fansite a week after she sold the pants for 20,000 gil – was that the monster she killed appears every fifteen hours, but only on one of three possible barge routes, and only if that route happens to fall within certain hours of the virtual day in FFXI. Though the monster was not troublesome to defeat, the probability of its appearance was low. Kerri spent three weeks waiting for the monster to appear again and sold the next pair of trousers for 200,000 gil. Using information collected and published by other players, Kerri revised her assessment of the trousers' economic value. Using information published and circulated on fansites allows players to read equipment and items, identifying them and how they were produced. Though labour is not entirely standardised, as different groups of characters will take more or less time to defeat monsters or overcome specified obstacles to fulfil criteria for more esoteric objects, players are able to roughly

assess effort required to generate objects. This process is complicated by similarities between items. Some armour sets have minor colour differences – black with purple edging on a tunic rather than dark blue with tan edges. Unlike prestige or branded goods in everyday life, many players are able to immediately and precisely identify how objects in FFXI were produced. This is not because labour is directly inscribed on the items, but because information about production and economic value is widely circulated both in-world and externally, and such knowledge is considered an important aspect of in-game expertise. Fansites may not always be accurate, but these sites provide knowledge about qualities crucial to positioning objects within players' economic valuation schemes.

Producing and Forgetting Economic Value in Second Life

For players of FFXI, discussing economic valuation is an opportunity to demonstrate knowledge and expertise, but for SL residents, the same topics can be uncomfortable. Talking about economic value challenges residents' construction of SL as a leisure space, can muddy strictly policed boundaries between First and Second Lives, and prompts distressed comments about emotional investment in what one respondent, who wished to remain unnamed, called “a pixellated fantasy” and what Mangas Coloradas described as “nothing at all”. This resistance illuminates economically and socially entangled troubles, and highlights differences between SL as a site of relaxed, sociable leisure and FFXI as a site of goal-oriented, structured activity. Amongst those residents willing discuss economic value, two themes emerged: distinctions between virtual real estate and other commodities; and discourses of quality grounded in residents' knowledge (or lack thereof) about production techniques, which generate diverse valuation criteria. Before examining how residents talk about value, it is important to understand why this topic can cause such malaise.

Economic value foregrounds anxieties about boundaries between everyday life and Second Life and challenges many residents' construction of SL as an unreflexive leisure space. Talking about economic value suggests a pragmatic orientation in which the value of objects should or could be considered, which conflicts with framings of Second Life as a space of play uncomplicated by consequences or costs, where value(s) – economic and otherwise – are safely left unconsidered. Discussing the value of things can lead to uncomfortable and (for some residents) startling realisations about how much money they have invested in SL or used for virtual consumption. When interviews broke down over these topics, it was not because residents were unwilling to talk about different qualities of objects that contribute to their economic value. Instead, it was an over-willingness to talk about material goods that seemed to precipitate interview collapse. Lena's interview provides a good example:

SR: What are some of the most costly items you own in Second Life?

Lena: some musical instruments, followed by dance HUDs,¹⁴ then some of my best dresses

SR: Why were those particular objects expensive?

Lena: well the first 2 items are not only objects but are also scripted and animated, they pretty much use everything and took time and talent to create

Lena: the dresses are just visually gorgeous, well created. . . [Lena discusses more precious objects she owns in SL, including an avatar and a custom made book. Eventually there was a short pause, and so I introduced a new question.]

SR: Inventories tend to become very large and hard to organize. How do you organize your inventory?

[Another pause]

Lena: I have to go now

Good-byes in Second Life are drawn out and sometimes become entire conversations, like the pleasantly long farewells of old friends. Lena's usually chatty and sociable demeanour was switched off like a lightbulb, and she logged out of Second Life almost instantly. If this had been an isolated incident, it would be reasonable to think something urgent arose offline, but this was not

¹⁴ Heads Up Display.

the only conversation that would terminate abruptly at the same point in the interview schedule.

After a long recital of expensive things purchased, there would be a brief pause – as if the very revelation of goods consumed had been an epiphany – then interviewees made rapid exits.

Respondents who felt uncomfortable and broke off discussions were regular Linden dollar buyers. Amongst respondents who earn Lindens in SL, or whose consumption consists largely of freebies, economic value reflecting money spent in SL was not a sensitive issue, but for Second Life's landed residents and those who often buy Linden dollars, whose virtual consumption can be linked to their bank balance in everyday life, economic value can be problematic. Revealing the amount they are willing, or able, to spend on virtual entertainment blurs boundaries between offline and SL. Even though most commodities in SL are fairly cheap – Rocket, a landlord in SL noted that “most stuff costs about the price of a coffee” – such connections violate norms about disclosure and compartmentalisation. Those who do not buy Linden dollars, a group that includes both successful entrepreneurs and transient residents, did not show the same reticence. Business owners were willing to talk about their access to cash, or problems with intellectual property infringement that impact on the value of goods. For residents who earn a virtual wage in SL, like Adam, Mangas and Kira Lancey, a steady supply of Linden dollars gives them a sense of freedom to spend virtual money as they wish without First Life ramifications.

Mangas, who has several virtual jobs in Second Life, explains why some residents do not like to talk about why and how their Linden dollars are spent:

if you get them [Linden dollars] in world, it doesn't matter on what you spend it,
but if you buy them, you're putting RL money in a virtual world, in some pixels,
that actually mean nothing

Mangas feels no awkwardness talking about his own consumption, and the value of things he has purchased in SL, because those purchases were funded by his virtual work. From his point of view, residents who avoid such discussions are attempting to avoid admitting that they have spent money on “some pixels, that actually mean nothing”. The realisation that the bottomless shopping bag promised by Linden Lab¹⁵ is full of air can be akin to the Emperor's realisation that he is wearing no clothes. Ally, a London artist and former resident, explains why she stopped visiting SL:

There was nothing there, it was all just empty. for artists, there's no room for creativity, or anything new. It's just shopping for nothing. for pictures.

Ally and Mangas are not eccentrics, but their views are not normative within Second Life. Most residents do feel as though the virtual money they spend is used to buy valuable things, objects whose economic value can not only be assessed, but explained. Yet unwillingness to talk about the economic value of virtual things cannot be easily glossed over, not only because there are dissenting voices like Mangas and Ally, but also because such resistance efforts represent an attempt to reinforce the consumerist fantasy of abundance which is encoded in SL itself and encouraged by Linden Lab.

Amongst those who spoke about economic value, the matter begins and ends with caveats about which commodities or goods are involved. Residents distinguish between real estate – the most expensive commodity in SL – and nearly everything else, though some indicated a difference between non-replicable goods and replicable or freebie items. The phrase “but that doesn't apply to land” as Clive put it, was reiterated as respondents distinguished virtual real estate as a distinct register of economic value. Tammy Ann explained “land works differently” from other goods in SL

¹⁵ See http://secondlife.com/whatis/?lang=en-US#Go_Shopping

because “they [Linden Lab] control how much [land] there is.” Ayu, a virtual arms trader, explained how guns she sells differ from real estate in SL:

supply [of weapons] is unlimited. . . there isnt enough customers i think. for every customer there are about 100 weapons.

The shop where Ayu works sells guns and weapons that are no-copy. Only at the point of sale are they generated seemingly without limits. However, freebies, and other non-copy protected goods, can be replicated to apparent infinity. This endless replicability prompted Allain, one of Ayu's co-workers, to remark, “supply and demand just doesn't apply” with respect to arms and ordinary goods in Second Life (a position that will be explored at length in chapter seven). Unlike resident-produced commodities, whose economic value is open for collective negotiation or subjective judgement, real estate is understood, as IntLibber Brautigan said, as an “artificially valuable” because its supply is tightly controlled. He suggested real estate must remain valuable because Linden Lab's financial solvency depends upon it. In SL, land seems to stand alone, like the proverbial cheese, with its own regime of value. Ms. Bunneh said, “Hands down, land will *always* be the most costly thing to own in Second Life.”

Given these characteristics – finitude, controlled supply and apparent conceptual distinction – virtual real estate appears to be an ideal case for studying economic value in SL. Upon closer consideration, land is not an analytically useful subject for lay theories of economic value for two reasons: seeming conceptual distinctions are matters of scale rather than difference; and few residents have personal experience with, knowledge of, or interest in SL real estate. Residents who identified land as a distinct category, even people who are actively involved in business like Ms. Bunneh, suggest that the difference between virtual real estate and other commodities is a

matter of scale rather than clearly delineated conceptual difference. Land prices are several orders of magnitude larger than clothes, shoes, body parts or other common purchases. Real estate has monthly (or weekly) maintenance fees as well. Residents prefer quick responses, a quality important in maintaining standards of sociable, personable conduct. For respondents it was easier to type, “but that doesn't apply to land” than to provide a lengthy explanation of separate criteria or indicators of quality that apply when deciding the economic value of real estate. Thus land is separate not so much because of what it is, but rather because of the magnitude of its price, not necessarily its value. Tammy Ann explained: “I guess land[']s not too different. It[']s scaled up, but more or less the same.” The translation of virtual real estate prices in Linden dollars to large sums in United States dollars or another currency when compared with the converted prices of other virtual commodities – roughly equivalent to Rocket's “cup of coffee” – is what makes real estate distinct.

The proportion of residents who owned or rented land in Second Life was very small during fieldwork, though this may have changed as a result of Linden Labs' recent promotional land and homes offers designed to boost uptake of Premium Accounts. Long-term land ownership in particular – rental or ownership for a period of more than two or three months – was limited to a very small proportion of residents. Though promotional material from Linden Lab emphasises owning land, an overwhelming majority of users live a free-floating existence in SL. Though very few respondents owned land, several had previously rented small parcels or a flat. Some respondents had bought or rented a lot or virtual apartment for a short time, then became bored with it or could no longer afford it. Two or three residents even described stumbling into renting a piece of land, then barely using it. The in-world interests of many residents simply do not require

private land ownership. Clive, a resident of SL for two years who enjoys socialising and listening to music in-world, gives an account of his rented apartment:

Clive: I rented this place. An apartment in some land w/a beach

Clive: I stayed around for a few hours or so left

Clive: then lost it

SR: You lost the apartment? You didn't make a land mark?

Clive: lol no

SR: Did you ever find it again?

Clive: nah

SR: Did you keep paying for it?

Clive: a few weeks maybe

SR: Even though you couldn't even find it?!

Clive: lol ya

For Clive, the apartment was something to be enjoyed for a moment or two, but when his interest faded, he felt free to leave it behind. If such a scenario had occurred in everyday life, we might wonder why Clive continued to pay the rent, but in Second Life, where commodities are rapidly produced and reproduced, and in heavy circulation, such a situation is less difficult to explain. The flat, though it represented a rather expensive commodity, was fun for a short while, but once its novelty faded, he was no longer interested. Though Clive's story is an extreme case, he is by no means alone in treating land like a scaled-up version of other SL commodities. Other residents told stories about renting small parcels for several weeks, only to realise – in the very process of the telling – that they rarely visited or used their virtual homes. Pike Slade, who spends much of his time in SL ballroom dancing, invited me to visit a plot of land he had purchased nearly a month ago, proudly welcoming me as his very first visitor.

Both Clive's and Pike's experiences with land are indicative of general consumption patterns in SL rather than being unique to virtual real estate. In an online world with rapid circulation and replication of goods, the disappearance of things from memory after a brief period of novelty is not

uncommon.¹⁶ In the moment of purchase, some residents debate or consider economic value, using discourses of quality that rely on assessment of skills and labour represented by an object. Even though these considerations often become insignificant once the item passes into possession, discussing qualities in the moment of purchase legitimises consumption choices and shows discernment or taste – which is demonstrated through knowledge of production techniques and appreciation for creativity and skilled labour.

How well a resident understands production techniques or judges creativity is tied to her activities in and orientation to Second Life. For many residents, knowledge about how things are produced is acquired haphazardly. Amongst a small number of dedicated creators, how virtual things are made is a matter of great (and sometimes pecuniary) interest. However, it is not meaningful to set up an artificial binary of consumers and makers. It is more useful to think of residents as being located along a continuum of knowledge about and interest in production techniques. Very few residents know absolutely nothing about virtual production. Most know that objects in SL are composed of prims that are placed together and have textures applied to change their appearance. More detailed production knowledge is not well circulated, which can lead to different assessments of economic value for similar products. Moreover, tools for producing high quality goods – sculpted prims, high resolution textures and complex interactive items – are not widely available, further obscuring production processes. Judgements of economic value are more variable amongst SL residents than for players of FFXI. Isolated and incomparable objects and patchy knowledge about how things are made generate varying notions of quality, a situation where value can easily be replaced by desire.

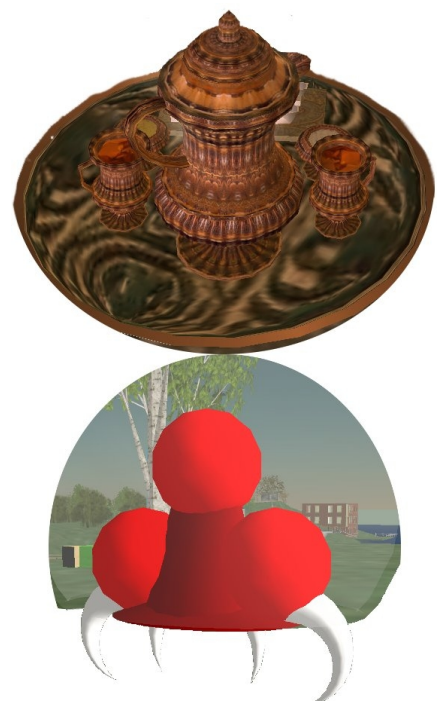
¹⁶ Time as an aspect of economic life – particularly with respect to novelty and investment – is a theme from both research sites that was beyond the scope of this project, but that I would like to pursue elsewhere.

Though information about building is not always widely disseminated, this may be a result of disinterest rather than attempts to hide or protect production knowledge. Vicki, a fairly well-to-do resident who enjoys buying goods from SL designer labels, believes that building is too much bother: “Why do it [creating things] when other people make stuff already?” Residents who do not build – the vast majority of SL's population – rely upon indirect assessments of labour articulated as signs of “quality”. Though quality is ambiguous, it does have three common features for all respondents who used this concept in discussing economic value: it varies according to resident's knowledge about building; higher quality is ascribed to objects that incorporate production techniques that the evaluator herself cannot use, describe or finds difficult; and quality unrelated to price.

Residents who do not build provided seemingly simple criteria for economic value: how good something looks. This is not so much a superficial judgement as one that reflects the importance of constructing an aesthetically appealing avatar and virtual lifestyle, a crucial demonstration of appropriate participation in, and understanding of, Second Life. Like attending a job interview in jeans and a baggy t-shirt, an “ugly” avatar – unattractiveness is dependent upon locally variable beauty standards – is not only a sloppy self-presentation, but an unskilled and possibly discourteous one. When asked what sets apart the most expensive things she owns in Second Life, Nadia Keen, who owns a small plot of land and lists “shopping” as her SL interest, said, “they [expensive things] look better than the cheaper ones, they're worth more”. Rather than placing emphasis on functionality – what interactions are created or facilitated by an object – or realism, Nadia's articulation of economic value is synonymous with appearance, the extent to which these

objects facilitate an appropriately beautiful avatar and virtual life. Kira Lancey, an SL escort and pole-dancer, has the same criteria for evaluating economic value. She explained that the high quality clothes required for her work were distinguished by “good textures, ones that look in-depth, and detailed”. Kira's explanation draws on her knowledge of using images to cover prims, giving objects a textured appearance, but she also notes that “good textures” are “in-depth, and detailed” which suggests a distinction between low resolution and high resolution textures, as well as an ability to distinguish between well-placed texturing and less skillful attempts.

Both Kira and Nadia would agree that the tea set in the illustration on the right is a better quality item, and thus of greater economic value, than the monster beneath it. The tea set belongs to Jean LeJeune, a photographer who sells his pictures in Second Life, and was his most valued virtual possession. For Jean this tea set is valuable because of extra scripting that adds interactive features. The tea cups can be picked up from the tray and held by Jean and his guests and animations allow an avatar holding the pot to make a pouring



motion above the teacups while avatars holding the pot to make a pouring animation above the teacups while avatars holding tea cups can make sipping gestures. When explaining why the tea set was the most expensive object he owned, Jean made reference to its scripts as indicators of quality, not the texture work – though he did praise the appearance of the tea set later. As an artist who deals with images – Jean sells his photographs in SL – good texturing is work he can appreciate, but scripts, a production technique he cannot use, are more valuable to him.

Adam Lee, a special events planner in SL, shares Jean's perspective. He explains how judging quality influences residents' valuating decisions:

For beginners it's harder. but once you get to shopping and looking at what goes into an item, you get a feel for what you think it's worth is. I build a little so complexity of an item or the scripting is worth a lot more in value from my point of view.

Knowledge about “what goes into an item” or labour and production techniques required to produce it, are important indicators when assessing value, and he points out that these judgement are more challenging for new residents. For Adam, who woefully admitted, “I can't script”, an item with interactive features has more economic value not only because of additional interactive functionality, but also because he could not produce such things himself.

Eri Yume, owner of a clothing shop, is less oriented toward techniques she cannot replicate than toward those she is learning or wants to learn.

Eri Yume: I think I look mostly at the texturing on the item.

SR: Ah, so good texture work is a sign of good workmanship?

Eri Yume: Yes, I think so. Also the way the prims are put together. The amount of prims doesn't matter to me, just how they are used.

SR: Could you elaborate on that?

Eri Yume: Well, some people can make something look extremely realistic or pleasing to the eye with well placed prims and textures. Other people use massive amounts of prims and the end result is still not very good.

When I first interviewed Eri, she had only been in business a short time. Her building skills were not yet well developed and she was working on texturing and prim placement. She was not yet able produce sculpted prims, blocks moulded into unique shapes using 3D textured meshes. Several months later on a joint visit to a famous SL clothing designer's boutique, Eri's criteria for economic value had changed.

Took Eri to Black Gardenia because she wanted to see the shop where my outfit was bought. It's enormous, hundreds of outfits. We started out looking at the older merchandise. Not as complex as the stuff in Moonlight [Eri's shop].

Eri was excited about a furisode kimono, "Sculpted hairsticks! And the shoes!!!" She liked the hairstyle with it, and praised the texture work. I expressed reservations about the price tag.

Eri was adamant that sculpted prims in the hair, shoes and jacket were "high quality". "It's a full prim outfit!" She pointed out a scripted component in the outfit as an extra feature indicating "good quality".



Eri in her new clothes at Black Gardenia.

From placing emphasis on texture to using sculpted prims and scripts as a measure of quality, Eri's evaluations changed along with her own rapidly

expanding production knowledge and skills. Evaluation

of an object's quality can also be used to legitimise consumption. When I had doubts about the outfit's price, Eri pointed to the sculpted prims and a script as indicators of value. These clothes are composed of prims which are worn around an avatar's body, rather than being made with pre-existing clothing templates that the designer modifies. This kind of virtual clothing requires special fitting to an avatar's body shape and is time consuming to produce. Eri argued this extensive labour is an indication of quality, or greater economic value.

Residents' framings of economic value employed discourses of quality dominated by the themes suggested by Eri, Nadia, Kira and Adam: appearance, which includes both textures and prim

placement; and scripting, which represents functionality. However, some residents take notice of another factor: shop or designer popularity.

Mangas Coloradas: i use SL exchange to look for stuff but i never buy it from there, i always get the seller's name and go to there in-world shop to look at it

SR: Now that's interesting. What can you learn by going to the shop?

Mangas Coloradas: you'll get to see more than the little pictures on SL exchange and you can see if the shop is busy or not. lots of clients probably mean good quality, whereas no clients probably mean poor quality

For Mangas, looking at the item and considering how it was made is not enough. He wants further indications that other residents like the designer's work. Others' endorsements help reassure Mangas that goods he may purchase are of an acceptable aesthetic standard, and that he is not about to be misled by clever advertising. Pixeleen Mistral, editrix of the Second Life Herald, agrees: "sometimes asking the other people in the store helps" her decide about purchases and assess merchandise quality.

For skilled builders who can easily assess labour embodied in an object, such quality-based evaluations are deceptive, if not irrelevant. Ms. Bunneh, a maker of finely detailed Victorian and steampunk-inspired clothes and furniture as well as an SL architect, explains how she evaluates the skill and quality of labour in others' products.

It's obvious at a glance whether the creator knows anything about creating textures and how lighting works and other nuances. Some things can be less obvious. How well does this shirt seam front to back? Is the skirt designed by a monkey? Those are things you just have to take a chance on. Luckily for me, skirts are not a problem. I can remake a badly built skirt with ease, so that's not necessarily a strike for me. There's a lot of designers who make great clothes, great textures, [but] couldn't put prims together to save their life.

In most SL stores, customers rely on small wall-mounted images of merchandise that do not depict products from all sides. With greater knowledge about possible errors in clothing construction, Ms.

Bunneh highlights problems that are “less obvious”, that cannot be seen in SL merchandising. A dress that looks lovely in a still image may mutate grotesquely when its wearer sits down, or flap about in an unseemly way when she walks because its prims were poorly placed. Residents like Nadia, Adam and Kira might not notice if their garments opened up in the wrong places when they walk, but such a detail would be an annoyance to residents who routinely create clothes, like Eri and Ms. Bunneh.

Experienced builders like Ms. Bunneh are able to fix broken objects. Though she only mentions re-seaming a skirt, Ms. Bunneh's skills allow her to repair and re-purpose any number of objects. When poor craftsmanship can be repaired, assessments of labour quality are no longer relevant. For these residents, economic value is based on creativity and originality. When skilled builders go shopping they see not only commodities but components: a poorly made sofa with a special avatar animation; or an item that contains a single, well-shaped sculpted prim. For residents who do not build, or who have limited production knowledge, such unattractive goods have no economic value whatsoever. For tinkerers, constituent parts can be quite valuable, providing hours of playful and creative enjoyment. A strangely shaped sculpted prim could be re-purposed for a vehicle hood ornament, a piece of jewellery or even a hat decoration. Rather than considering a commodity as a whole, and judging its appearance or quality of craftsmanship – textures, prim placement or scripting – an experienced builder uses her imagination to pick objects apart, looking for something to salvage, re-use or reproduce using her own skills. Such residents have a notion of economic value based on bricolage (Lévi-Strauss, 1985:26) rather than evaluations of consumable commodities. Shopping can become a quest for inspiration or spare parts. Even a “skirt designed by a monkey” can be moulded into part of a beautiful dress with skill, time and effort.

Variable quality criteria make economic valuation highly individualised in SL. When combined with geographic dispersion of commodities across the grid and minimal comparability amongst things, assembling bundles of comparable commodities, as FFXI players do, is an impractical mode of economic valuation. Together, these factors create a shopping experience that can be frustrating and time-consuming, but rewarding when the perfect item is finally found. Residents who want to compare commodities grapple with helter-skelter arrangement of shops and the unreliability of Second Life's internal search engine. Shops that are no longer in business, or that have moved elsewhere, are still listed under their old addresses while larger enterprises use multiple listings to dominate the first few pages of search results. Black Gardenia, the designer shop mentioned above, has no less than ten individual listings in Second Life's search engine. As the SL search engine's findings are listed according to visitor numbers, some shop owners offer cash camping, free goods and special events to generate extra traffic. These gimmicks distort an indicator of quality – shop popularity – upon which residents like Mangas and Pixeleen rely. As in everyday life, smaller entrepreneurs are crowded into the periphery while larger businesses capture most consumers.

Under such conditions, it should not be surprising that economic value becomes a highly subjective case-by-case decision. Faced with so many challenges to economic valuation, many residents have little rely upon but intensity of desire. Though assessments of quality or novel spare parts are cited as indicators of economic value, when residents talk about why they bought a certain outfit, vehicle or animal companion after the moment of purchase, accounts tend to revolve around desire. Economic value is an afterthought. Adam's account of purchasing his hug ring – a scripted item that facilitates intimate interactions between avatars – illustrates the primacy of desire over

economic value.

Adam Lee: i bought a hug ring that cost quite a bit more than i felt it was worth, i think it ran about 1200 [Linden dollars]

SR: Why was the price more than it was worth?

Adam Lee: it's a one prim item with relatively simple scripting, but hard to find so i paid the price. most anything you want or need can be found either cheap or free if you look hard and long enough. So paying a lot is sometimes hard to justify. i REALLY wanted the hug ring though so i didn't look to long after i found this one. I just bought it

SR: So sometimes it's easier to just swallow the big price rather than hunt for days in a myriad of shops?

Adam Lee: yes! :-)

For Adam, a hug ring is not an item that has high economic value. Composed of only one prim, which is so small as to be nearly invisible, so it is not adorned with any textures, and having only “simple scripting”, its qualities are not compatible with his understanding of a valuable item, as discussed previously. If he were willing to spend a bit more time and effort, Adam could create his own hug ring with help from a friend who writes scripts. His building skills are sufficient for such a task; but motivated by a desire to have an item like this immediately, he bought one for a price that did not match his assessment of its actual economic value.

Zofia Ember, a Czech resident, echoes Adam's feelings about the immediacy and power of desire.

Zofia Ember: hmm... I am quite impulsive. When I like something really much I must have it :-) even though I don't have money and then I sit at a stupid camping. even though it is expensive.

SR: You don't buy Lindens?

Zofia Ember: well, I would like to but it is quite complicated for me to buy it for dollars. I just used to send some money by TT transfer before (not [for] SL [money]) and it was quite expensive from my Czech bank

Even though buying expensive goods means that she must spend many hours logged into Second Life sitting on a virtual chair, because she cannot easily purchase Linden dollars, Zofia is willing to be bored. Though she cannot immediately purchase what she wants – unlike Adam, who has a

healthy virtual chequebook augmented by his in-world job – Zofia is equally willing to put aside questions of economic value when she sees something particularly attractive. Powerful and immediate desire can easily trump residents' other criteria for assessing economic value in SL.

Incomparability and lack of relations between commodities, poor circulation of information about production, and resistance amongst some residents to thinking and talking about economic value and consumption practices generates an economic landscape where variable standards of quality and personal desires are the only remaining guides for determining economic value. Under such conditions, economic value arises not through relationships amongst things and between people and things, but in the thing itself. Even so, residents still evaluate economic value through assessments of labour – much like FFXI players – which depend upon knowledge about how goods are made in SL. Such judgements are usually only relevant at the moment of purchase, after which objects tend to fade into obscurity, becoming a string of characters in an avatar's inventory. This disappearing trick obscures potentially unsettling economic investments residents make in SL, and facilitates enjoyment of virtual objects as things in themselves. Thus there is strong tension between residents' discussion of quality, or the valuation of things, and the defense of Second Life as a creative, non-commodified space – one where creativity trumps economic value – which is alleviated by forgetting, or displacing.

Thinking Through Economic Value

Respondents' emphasis on production methods, skills and craftsmanship as foundational elements of economic value is problematic for contemporary economic sociology, where attention has shifted away from production and toward consumption – whether in the form of consumer activities

and fan cultures or the consumption of risk and financial derivatives in studies of high finance. Lay theories also suggest that anthropological and material culture approaches can illuminate economic life in contemporary Western capitalist societies, particularly with respect to comparative assessment of economic value and the importance of non-circulating objects in FFXI. Participants' accounts indicate that economic actors conceive of price and economic value as separate concepts. When combined, these aspects of lay theorising also diverge from economic images of consumers as strongly motivated price discriminators. To some extent, divergences of economic valuation strategies between SL and FFXI are partly rooted in the designs of these worlds, but common emphasis on production suggests that even in the most ethereal world of signs and symbols (digital goods in virtual worlds) users still think in remarkably concrete, material terms.

Most research respondents live, study and work in the global north, in consumer-oriented capitalist societies, whose economies Sachs and Santarius (2007:60) describe as performing only the “final stages of value creation, which rest on processing, innovation, and symbolic production” or economies dominated by services, design and consumption. Yet participants' ways of thinking about economic value remain at least partly rooted in production-oriented conceptualisations that have fallen by the wayside in economic sociology. The most surprising finding in this chapter is the extent to which respondents in both virtual worlds emphasised production, especially in Second Life, which seems to most closely simulate the extremes of a hedonistic, consumption-oriented socio-economic environment, suggesting that some reconsideration of the turn away from production-oriented analysis and toward status or symbolic meaning (as evinced by Baudrillard, [1970]1999, [1972]1981, [1976]1993, 1985) is needed. Pixellated objects in virtual worlds are images, or as Squiggle explained, “[they] are only a line in a database somewhere.” These

simulated things are, at their most basic level, strings of characters, they are signs and symbols, yet even these simulated objects still suggest valuation in terms of production, rather than as signs or symbols, to those who buy, sell, use and enjoy them.

Though FFXI and SL differ tremendously in the structuring of their respective material and economic worlds, respondents from both sites stressed the importance of labour. In FFXI this is not particularly surprising, as character development is the ostensible goal of the game, achieved through various forms of ludic work: killing monsters, completing quests, crafting objects, conducting commerce between players. The technical design of Vana'diel, its fictive depth and fans' attempts to collect and reproduce information about items, monsters, battles and statistical enhancements facilitates this orientation. With such an abundance of centralised information, standardised commodities – every maker of Noble's Tunics produces the same item – and enthusiasm for undertaking labour-like leisure, it is not surprising that production becomes important in economic valuation. In contrast, Second Life presents no overarching structure or minutiae. Avatars in SL have far more consumption options than FFXI characters, but these commodities are unstandardised – every maker of couches produces different styles, colours and levels of quality – and knowledge about production techniques or how items are created is not central to enjoying SL. Despite an emphasis on creativity, the design of Second Life does not facilitate production-oriented approaches to economic value, yet residents still rely on these categories. This suggests that there is some enduring appeal or usefulness in production that is more than a mystique. High street shops are filled with goods purported to be “hand-made” or “freshly made by our sandwich chefs” or adorned with pictures of people in distant villages from whose fields the chicken, carrots or cocoa beans originated. Evidence abounds in the aisles of

grocery shops that consumers are interested in (even fascinated by), and certainly make decisions based upon, knowledge about the origins of things. Material culture studies explore these issues, but there is scope for investigation by economic sociologists too.

The second principle finding of this chapter is that economic value does not exist in a vacuum. When SL residents consider the quality of an object – craftsmanship and quality of work – the criteria used are based on individual capacities, or their absence and a general consensus on what constitutes “good texture work” or “good prim placement”. These standards are by no means an absolute, but through public discussion on blogs or forums about innovative or well-made products and new production techniques, or even shopping-talk, residents with diverse interests negotiate which skills, like texture work, scripting and prim placement, are indicators of quality. Features like attractive colours, clean lines, reproducibility or multifunctional design could also be markers of skilled production, these are not the markers residents chose. Though individuals decide for themselves which factors are more or less valued, and to some extent reading the labour embodied in objects is idiosyncratic, assessments of economic value in SL is based on criteria that are collectively negotiated. This negotiation is certainly not facilitated by the design of SL – most of these negotiations take place outside the virtual world because there is no centralisation on the grid. Comparing goods between geographically scattered shops is so difficult that entire businesses have developed around bring SL sellers together on one website so that consumers can at least compare prices, styles and colours before visiting in-world shops.

Even in FFXI, where quasi-objective standards seem built into the game world – powerful objects which are assumed by designers to be desirable, thus also valuable, are subject to engineered

scarcity – players have established their own criteria. Economic valuations are based on the qualities of an object when compared with what they deem to be similar commodities, and though the bundle of similar goods is broadly negotiated – through discussions on fan sites and so on – there is still room for individuals to think through valuation and make their own decisions. In rejecting price as a meaningful reflection of economic value, players are not only making space for separate regimes of value, economic and otherwise, but also accounting for severe economic fluctuations that change how much they pay for goods, but do not change the relationships between things (and people) that establish their economic value.

Finally, an imagine of price-obsessed consumers, though challenged by studies of material culture (Miller, 1997) has remained useful for legitimising questionable business practices in a race-to-the-bottom-line that is responsible for widespread misery in developing countries and over-exploitation of natural resources. Though in both virtual worlds production and labour are involved in conceptualisations of economic value, some respondents continue to think in these terms when considering economic value in everyday life. After finding out about sweat-shop labour conditions endured by workers engaged in Real Money Trading, Yuri, an American player of FFXI, felt “sick”:

I didnt know this actually went on. its fucked up. its not just gold farming, it happens with clothes and other stuff too. Thats why walmart is so cheap.

Though he “can[']t always know” how the commodities that he consumes are produced, Yuri continued, “i try to look out for stuff made in the US”. Yuri certainly is not anomalous, as indicated by the increasing visibility of fairtrade and organic goods advertised as produced in a socially and ecologically sustainable manner in British and North American shops. Yet it is unclear whether this interest in production, its methods, impact and quality, is a resurgence of older ways of thinking

about economic value, or something new.

For lay theorists in FFXI and SL, economic valuation is flexible and contingent, changes to the virtual world – new production techniques or software in SL, or new items in FFXI – can upset the orders of things. Valuation processes rely upon reproduction of knowledge and imposing order, through comparison of locally relevant qualities. In the next chapter, reproduction overshadows reciprocity in accounts of exchange, which are connected with accumulating collective wealth in FFXI, facilitating sociability and making friends in SL, and re-making and maintaining appropriate subjectivities and valued social relations in both worlds.

Chapter V: Exchange

Respondents theories of economic value emphasise connections between objects and people through comparing accounts of production and distribution. Lay theories of exchange are similarly focused on relations between people and objects, but not through the usual conduit of reciprocity. Unlike value – where there was broad consensus across varying objects, sites and social relations – lay theories of exchange include a range of possibilities, particularly in Second Life. This chapter explores that spectrum of theories from both ends, from reproductive exchanges to commerce. Distinctions between more reproductively-oriented exchange and exchanges facilitated by economic institutions are not re-iterating a false gift/commodity dichotomy (Appadurai, 1989:11, 54), but reflect organisation of material worlds and economies which structure respondents' economic theories and practices. Generally, though reciprocity figures in academic accounts of exchange, it is not important for respondents. Instead, the bulk of respondents' accounts focus on reproducing and maintaining valued knowledges, skills, social relations and objects. At the other end of the spectrum are theories of exchanges concerned with costs and sacrifices. In Second Life, this end of the range becomes an ambivalent tangle of technological and economic ideas, or is resolved through subsistence-oriented approaches. Respondents from both sites articulated the importance of holding parallel conceptualisations of exchange, and of choosing correct framings according to parties, objects and relations involved. Though lay theories of exchange were not entirely the same in both sites, crucial points of their theoretical ranges overlapped, as reflected in the structure of this chapter.

Rather than being divided according to field sites, with a section on FFXI and one on SL, this chapter is organised according to the spectrum of respondents' key ideas. The first section examines reproductive theories of exchange, which in FFXI are analogous to a theory of the middle-range (Merton, 1968:39-45). The second half explores conceptualisations based on sacrifice and costs, which loosely characterises theories from the other end of the spectrum in FFXI, the last point where theories from both sites overlap. This latter portion also discusses costlessness and subsistence-based approaches (which have no corresponding elements in FFXI). These theories constitute a theory of the middle range for SL respondents. This spectrum is not a re-framing of a gift/commodity dichotomy, nor is it an attempt to distinguish money exchanges from those not involving money. Rather, it reflects the messy, shifting qualities of human relations and objects in both sites, along with entangled aspirations and economic understandings in SL.

Reciprocity is central to anthropological and sociological debates about exchange, whether defined transactionally, as tit-for-tat calculations in one transaction; as “balanced reciprocity” (Sahlins, 1972:219, 223; see also Polanyi [1994]2001) within a social group; or more broadly as a “moral universe” (Durkheim [1912]2001:168). Reciprocity is a strong theme in studies of gift exchange, ceremonial (Graeber, 2001; Strathern, 1971; Strathern, 1988) and otherwise (Becker, 1986; Bourdieu, 1977; Gouldner, 1960; Bohannon and Bohannon, 1968); social solidarity (Polanyi, [1994] 2001; Durkheim, [1912] 2001); kinship (Lévi-Strauss, 1969); and the embeddedness of the economy in social life (Granovetter, 1985; Uzzi, 1996; Ruggieiro and South, 1997). Yet reciprocity was not central to participants' theorising. As with value, academic approaches that resonate with respondents' accounts are neither the most recent nor widely cited. Instead of reciprocity, which

appears only rarely in a diluted form, respondents' practices and theories foreground reproduction and creation (Weiner, 1980). From this perspective, exchange is reproductive process (Weiner 1980:72) through which social actors produce and maintain valued aspects of participation in the world. A highly experienced FFXI player spends an afternoon helping a novice complete a quest, receiving nothing for his labour, time and money. When meeting for the first time, two SL residents exchange several dozen items, including clothes, stuffed animals and body parts. Asking what is received as equivalence in such exchanges leaves us holding the magician's hat after the rabbit has escaped: nothing is there. If we instead ask what is made, what is reproduced, the answers are more rewarding. By helping a novice, an experienced player reproduces capacities, skills, power and knowledge; by exchanging items, residents affirm new social ties through objects and older residents share knowledge about appropriate ways of being in SL, such as developing an attractive self-presentation. In both cases, actors are reproducing valued aspects of participation in their respective worlds. On rare occasions when reciprocity is mentioned, it is part of a particular understanding of a "moral universe" (Durkheim, [1912] 2001:168), though rooted in a sense of collective good will rather than religious belief.

At the other end of the spectrum of respondents' theories are exchanges that are not focused on reproducing capacities, knowledges or skills. Such exchanges are often mediated by, or embedded in, virtual economic institutions: Auction Houses and bazaars in FFXI; vending units, shops or other commercial mechanisms in SL. In such transactions there can be no giving of something without a return of items or money, and there is little room for negotiation. Both parties must agree to relations of equivalence that are not set entirely by their own valuations. Examples include the

influence of price histories in Auction Houses in FFXI upon sellers' minimum threshold prices and buyers' initial price offers; or the role of land bots, in-world real estate search listings, and Linden Lab pricing in creating what IntLibber Brautigan describes as false price floors and peaks for SL land. These lay theories of exchange overlap with taxonomies of cost from economic theorising. From an economist's perspective, economic life is a zero-sum situation where the cost of a decision includes what was given up or precluded by that choice (Mankiw, 2007:6), resembling connections in anthropology and sociology between exchange and sacrifice (Mauss, [1954] 1970:15; Simmel [1907]1971:45).¹⁷ Participants specified appropriate situations for considering costs and sacrifices, as well as whose costs and sacrifices should (or should not) be considered. For some residents, exchange with costs or sacrifice conflicts with valued qualities of SL. Such residents elaborated no-costs theories of exchange, ranging from subsistence-oriented, no/low-growth perspectives to techno-utopian views. Players of FFXI differentiated between exchanges where costs are important and those where such reckoning is either difficult, socially inappropriate or meaningless. Respondents from both sites downplayed the importance of exchanges framed in terms of costs, but FFXI respondents valued those involving sacrifice, influenced by Vana'diel's heroic tropes. For players, transactions mediated by in-world economic institutions are the least important ones, while many SL residents are more invested in the pleasure of accumulation – or the tantalising to-and-fro of deciding about and talking-through purchases, as discussed in chapter four – than exchanges themselves.

Finally, a note on respondents' use of economic terminologies. Though not as pronounced in

¹⁷ This is not surprising considering Simmel's intellectual debts to marginalist economists such as Menger ([1871]1976).

discussions of value, economic jargon becomes emerges in discussions of exchange, money and markets. Terminology from academic economics, gleaned from disparate sources, is used as prestige language. Prestige terms, or prestige language, are words and phrases that are associated with valued, high status knowledge – in this case, economics and business – that are deployed as claims to knowledge or power. In some SL interviews, business buzzwords are similarly used. Thrift (2005:96) has argued that business schools have produced a global rhetoric of capitalism and business maintained through international executive education. In a similar way, certain groups in Second Life have produced their own phrases and ideas describing theories of capitalism and enterprise. FFXI interviewees did not draw on business or management terminology, but did use jargon from economics.

Reproduction, Creation and Reciprocity

Before delving into lay theories in each field site, some discussion of relevant sociological and anthropological framings is needed, particularly an explanation of Weiner's (1976; 1978; 1979; 1980) feminist, reproductive exchange theory. Weiner's work, which reflects respondents' focus on production and creation, challenged an anthropological tradition of exchange as reciprocity (Malinowski, [1922]1932; Mauss [1954]1970; Lévi-Strauss, 1969; Sahlins, 1972). Framings of reciprocity range from transactional definitions limited to a single exchange (Simmel, [unknown] 1950:387) – the primary schooler's “Even-Stephen” – to Durkheim's ([1912] 2001:168) “moral universe”, but are characterised by static views of social actors and societies. These theories have an implicit teleological fuzziness, as if there will be a day of final judgment, a weighing of the heart for all exchanges in life. Participants' concern with flux and agency are not reflected in such approaches, but resonate with Graeber's (2001) model of reciprocity, which focuses on changing

social relations and dimensions of exchange over time.

Respondents spoke about exchange without reciprocity or equivalence, which diverges from conventional academic approaches in anthropology, economic sociology and economics.

Sociologically, reciprocity is thought crucial to formation of social ties and trust (Granovetter, 1985), materially constituting social relations (Strathern, 1971; Strathern, 1988; Miller, 2007). A world of exchanges decoupled from reciprocity suggests two possibilities for economists. Either property rights are not respected and goods are seized by force rather than transacted equitably, making reciprocity a foolish strategy for maximising utility or satisfaction; or the goods in question are worthless. For economic sociologists, the picture is equally strange: an anomic economy and society red in tooth and claw. From a sociological perspective, reciprocity is linked to social organisation and cohesion, with the development of trust and social ties arising from mutually satisfactory – reciprocal and equitable – transactions which generate the social medium in which the economy grows, rather like bacteria in a petri dish. For anthropologists, absence of reciprocity in gift exchange raises the possibility of dispassionate presents, prestations without social relations attached. Though this might not be an upsetting way to think about charitable donations, it offers a slightly disturbing view of Christmas presents.

Weiner (1976; 1978; 1979; 1980) argues, in her critique of reciprocity and equivalence “as central features or structures of exchange systems” (Weiner, 1980:71), that reproduction rather than reciprocity offers greater insight into materialities of exchange. Her analysis emphasises making and re-making relations and experiences through practices of exchange, and helps understand exchange without reciprocity in respondents' lay theories. A reproductive approach does not ask

what is received as equivalence, but asks what is produced, reproduced or maintained through an exchange. Weiner's argument is rooted in debates within anthropology that can be traced back to Malinowski ([1922]1932), through Mauss ([1954]1970) and Lévi-Strauss (1969), about reciprocity in kinship networks and mortuary, marriage and ceremonial exchanges in Melanesia and the Trobriands. She argues that applying norms or reciprocity in Melanesia leads to misinterpretation:

. . . concepts associated with traditional theories and models of exchange such as "balanced reciprocity," "pure gifts," and "generosity" completely oversimplify the much deeper complexities inherent in the way transactions allow for the build up and the embeddedness of wealth and value in others. (Weiner, 1980:73)

This model of reproduction, developed over a series of articles (Weiner, 1976; 1978; 1979; 1980) emphasises materialities of exchange, social ties and objects. Objects in everyday life become tattered or worn out and require replacement. Human beings grow old and die. Weiner (1980:72) suggests an "interplay between human life cycles and the life trajectories of material and immaterial resources" and that kinship networks are reconstituted, repairing losses of people and things, through ceremonial exchange. This approach is no less concerned with social cohesion and organisation than reciprocity-oriented perspectives, but links these phenomena to demonstrable, empirical evidence, rather than expecting them to arise somehow from trust, altruism or unspecified shared beliefs. A reproductive account of exchange seeks materialities – actions, objects, relations that participants can articulate – and connects them to specific practices.

In virtual worlds like FFXI, exchange can be used to repair death's consequences, particularly in high performance linkshells where players who sacrifice their character repeatedly to ensure others' survival may be rewarded more readily than those who complain about dying. However, if we consider other aspects of social life that can be reproduced through exchange, such as

knowledges, skills, capabilities and valued ways of participation in the world – representing “wealth and value in others” (Weiner, 1980:73) – reproduction illuminates exchanges that we would otherwise be compelled to explain as one-sided generosity. Reproduction of things, people, capabilities and ways of being in the world are central concerns in both field sites. Gifts of clothes or body parts from a long-term resident of SL to a newly minted user, or someone with a basic avatar, reproduce valued ways of being in SL – constructing an attractive avatar – while reproducing goods and affirming social ties, along with reinforcing the importance of accumulation and novelty. Experienced players in FFXI spend time assisting less skilled players increase their capacities, knowledge and abilities, creating better developed characters and players. These practices reproduce valued aspects of participation in FFXI: player skill, game-world knowledge and character power.

When respondents spoke of reciprocity, it did not resemble Simmel's ([unknown]1950:387) functional definition, “the schema of giving and returning equivalence”. Instead, they described a sense of fairness – not balancing or equality – a diffuse reciprocity maintained within and between social networks over time. This is reminiscent of Durkheim's ([1893]1984) *conscience collective* and his notion of a moral universe (Durkheim, [1912]2001). This emphasis on the changing status of relationships or integration into groups over time closely matches what Graeber (2001:220) describes as open and closed reciprocity:

. . .open reciprocity keeps no accounts, because it implies a relation of permanent, mutual commitment; it becomes closed reciprocity when a balancing of accounts closes the relationship off, of at least maintains the constant possibility of doing so. Phrasing it this way also makes it easier to see the relation as a matter of degree and not of kind: closed relationships can become more open, open ones more closed.

Rather than reflecting a system whose actors hope will somehow reach homeostasis, lay theories acknowledge change over time in relationships, social integration and individual qualities.

Graeber's (2001:220) spectrum, from open to closed reciprocity, reflects this variability.

Drowning in Things in Second Life

For residents, exchange is linked with reproduction through practices of sharing that reproduce valued ways of doing or being in SL: constructing an attractive avatar, shopping or selecting goods skilfully, accumulation, novelty and sociability. Yet the practices constituting this materially-rooted sociability also undermine it, as residents accumulate undifferentiated objects that no longer represent relations and persons. Most SL residents have inventories overflowing with clothes, animal companions, houses, vehicles, body parts and notecards. Even those who do not buy Linden dollars acquire many possessions. Though items with scripted features or produced to a high standard usually can not be transferred between residents or copied after purchase, there are enormous volumes of free, transferable and reproducible goods that circulate widely over the grid. This body of objects is increased by a minority of residents who create goods, but its principle means of growth is through copies made for sharing, through which exchange quite literally becomes reproduction. Objects shared this way travel quickly through social networks like viral emails or chain letters. In May 2009, I was involved in such a circulation when Eri Yume, a designer and boutique owner, offered new freebies in her shop. I collected a copy of one outfit – comprising ten pieces of clothing and several accessories – and made further copies to share with friends, who then made copies for their friends. A few days later, Valerie sent me a copy of Eri's freebie outfit, praising the texture work and sculpted prims. She received the clothes from a friend who had received them as a present from someone else, and so on. Such circulations occur

regularly, sometimes involving packages with dozens of items. As large volumes of goods are circulated and reproduced they become uncategorised stuff, things whose qualities and provenance are unknown or forgotten.

Along with the speed and scale of accumulation, thinking through exchange with reciprocity in SL is complicated by residents' expansive definition of giving, which encompasses human and non-human actors, intentional and non-intentional actions. Ayu, a white-collar worker who also tests and sells firearms in SL, provides an example:

SR: There's an assumption that when A gives to B, B will later give something to A. Do you think that is true in SL?

Ayu: i think so?

Ayu: i gave gold [her stuffed toy] a big spine crushing huggle ^^¹⁸

Ayu's comment is hardly an endorsement of reciprocity's importance or centrality. She follows up this tentative statement by giving a virtual cuddle to a stuffed animal that cannot return her affection. However, this toy is actually a replica of an avatar used by her friend Goldmane. In hugging the simulacra of a friend's virtual embodiment in Second Life, Ayu is expressing affection by proxy for someone who could return her feelings; Gold-the-toy stands in for Goldmane-the-avatar. Trying to understand exchange in SL in terms of reciprocity is complicated by non-human actors like Ayu's toy, because they present exchanges with no possibility of equivalence or reciprocity. Gold-the-toy is neither a divinity nor a cosmological force, Ayu expects nothing from it as a result of her actions, yet the toy is more than a material aspect of her relationship with Goldmane. Asking who receives what as equivalence in this situation leaves us grasping at straws.

From a reproductive perspective, Ayu has made the toy to represent Goldmane, who also has a

¹⁸ A cute smile.

copy of this reproduction of himself. Goldmane-the-toy materially reproduces Ayu's relationship with Goldmane-the-person because she has created an object that receives actions directed toward him. Goldmane-the-toy enables her to reproduce, to a limited extent, the experience of being together with Goldmane-the-person. Ayu's conversation quickly turned away from questions about reciprocity and toward building other stuffed animals and models of her bedroom. For Ayu, creating and reproducing things, people and places is more interesting than remembering who gave what to whom. Though Ayu's building skill and her extensive creations in SL are unusual, her lack of interest in keeping accounts is typical.

Copiable, transferrable items are used to promote and reproduce sociability through shared consumption. From barking dogs to musical hats, residents seem to have endless stocks of gag gifts to bolster flagging conversation. Sometimes multiple objects come into play.

Went with Pokey to visit Bridget's new land – a little garden-style plot with glass table and white chairs. She hasn't put up a house yet. Crystal was also there. Bridget shows everyone a dancing cow that plays music. She sits on it, and bounces around, and gives one to Pokey, Crystal and me. Soon we are all bouncing around on the cows. This is fun for a while, but the music is a bit irritating. Crystal takes out an enormous multi-coloured lollipop and makes copies for everyone. Then Pokey gives squid hats, and we all bounce around on the cows wearing squid hats and lollipops bigger than our heads. I shared a penguin that follows its owner, which added four penguins to the boisterous madcap romp.

Though the visit began with Bridget's gift of the dancing cows, it ended with novelty items shared by all creating a colourful, hilarious scene. As residents accumulate things through such interactions, it is not objects that are important, but experiences or interactions they facilitate. Shared enjoyment of consumption and novelty are more important than things, but such experiences and feelings are not all that is reproduced through exchange in SL.

Some residents make bulk donations of clothes and skins to new users. “It helps them look nice,” explains Tara Humper. Basic avatars provided to new residents do not conform to appropriate local self-presentation standards, and continuing to use such avatars “shows u dont care about SL,” says Lena. Not everyone agrees. Roger chose to keep his starting avatar:

People always give me clothes n stuff but I dont want it. I dont care how my avvie looks

Like Zofia, whose avatar does not wear shoes and receives footwear from strangers, Roger receives well-intentioned gifts from residents who wish to assist his virtual socialisation by helping him construct a more acceptable, attractive avatar. Giving fashionable items to new residents reproduces valued ways of participating in SL, but also gently disciplines recipients. “Gotta look good, or at least decent, or you won't make friends,” explained Adam.

In addition to sociability and reproducing appropriate ways of being in the world, many groups in SL are devoted to finding and collecting free goods from lotteries, promotional offers or freebie warehouses. With the exception of a few networks that are built around niche interests – a lucky chair group for Gorean slave girls or a lottery/freebie group for steampunk enthusiasts – there is little conversation in such groups. Discussion disrupts prize, lottery and contest announcements. From an outsider's perspective, these networks seem to promote “embeddedness of wealth and value in others” (Weiner, 1980:73), but they do not facilitate collective accumulation or social relations. These groups are means for winning prizes not ends in themselves. Jill, a fan of lotteries and freebie groups in SL, said that her inventory was “full of unopened packages”. For Jill, getting prizes is more important than the objects received. Once the package appears in her inventory, the excitement is over; extracting its contents is less interesting.

Many residents' experiences of SL are organised by a logic of material and social accumulation. Users acquire goods along with friends, fictive kin and acquaintances. As items and acquaintances accumulate, they slowly become undifferentiated things and hazily recollected people. Exchanges may create or reproduce a feeling, experience or relationship in SL, but these connections are fleeting, breaking down under the burden of memory. When asked about objects received from others, interviews sometimes ground to a halt as residents searched through tens of thousands of items and their memories. Only rarely could interviewees give an object's biography or connect people with things. Rocket, a boutique owner and small-scale landlord, was ambivalent about objects shared to facilitate sociability or as gifts. When I asked if anyone had shared items with her, she thought of promotional freebies.

Rocket: gifts lol u meen the free stuff u can get by yourself in stores because that are the only gifts i know

[pause]

SR: That's a gift, but what about when you were married? Did anyone give you a present then?

Rocket: ohw yes i am married in sl lol and get presents yes

Rocket: fish shoes dog

According to Rocket's first response – which was not atypical – the only shared items in Second Life are freebie goods left by shop owners as enticement to further consumption. During a lengthy pause between Rocket's comment and the probe question, I tried to think of some occasion that might have prompted sharing or gift giving. In everyday life, questions about wedding presents would lead to discussion of who gave what and the appropriateness of those gifts. Yet Rocket's terse “fish shoes dog” was the end of the matter. After another pause, I prompted about the fish:

SR: A fish? Neat! What sort of a fish is it?

Rocket: the best of sl :)) koi karpers [Japanese ornamental carp]

SR: oh! Those are beautiful. Do you have a pond for it on your land?

Rocket: have a whole sea :P

Rocket did not offer photographs of the fish, or pull one out of her inventory. She was enthusiastic, but could not remember who gave them. Like her virtual fish, Rocket swims in a wide sea, but of possessions not water, the abundance of which exceeds her memory's capacity. Participants described their inventories as messy, over-full and mysterious, where surprising things are often found: unopened packages with uncertain contents, outfits they do not remember purchasing or devices with uncertain uses.

Five participants placed more emphasis on the material aspects of their relationships, identifying objects connected to important people in their lives. These residents all rented or owned virtual land where they displayed these goods. Mangas Coloradas rents land from Rocket. His comments about a piano, given by his virtual partner, are the most detailed account of an item's provenance from any SL participant.

Mangas: hmm, i've received some [items], from friends. my piano for instance, someone bought me that :)

SR: That's a very big gift! Have any of these gifts been for an occasion, a birthday, or your wedding?

Mangas: well, yeah, when i got married, we got some presents :) and my wife gave me the piano, cuz we were together for a month, i believe

There are many types of pianos in Second Life, some have scripts for use as sexual furniture, others play a pre-set selection of pieces, while the most complex are player pianos that can be loaded with any digitised music. Mangas' piano plays a set selection of music and sits in a place of pride within his virtual home, dominating the front room. Even though his piano was an expensive and unusual object, given by a person very important to him, Mangas was not entirely certain when or why it was given.

Entangled in circuits of endlessly proliferating and circulating objects, residents are hard pressed to remember details. As possessions increase, the social embeddedness of those things, and their status as material components of social relations, grows thin and uncertain. How objects are exchanged compounds remembrance difficulties. Dropping objects on another resident's profile can be done anywhere in-world, giver and receiver need not be co-present. When an object is received, an inventory alert message asks the recipient to accept or reject it. If the item was sent while the receiver was offline, this message will appear amidst many log-in notifications: private messages, group notices and spam. Users fall into a pattern of clicking "Accept" or "Reject" repeatedly without reading each notification. While wandering through SL residents receive more messages: estate rules, landmarks, note cards, scripts or clothes for local use and warning messages. Amongst so many notifications an inventory alert can be lost. When these circumstances are combined with the sheer volume of goods circulated between residents, it is easier to understand how objects grow pale and less meaningful.

In everyday life possessions are limited by income, storage, personal taste, production capacity and speed, natural resources and transportation. Residents have boundless storage and their only scarce resource is time. Unlike everyday life, where "society cannot give every individual the highest standard of living to which he or she might aspire" (Mankiw, 2007:3), residents in SL can obtain the trappings of a luxurious virtual life without spending Linden dollars. This virtual negation of scarcity is broad and all-encompassing. Under such conditions residents experience a form of protective amnesia. So many goods are circulated so quickly that the task of remembering contexts and who gave what to whom is nearly impossible. The transience of most relationships in SL also robs meaning from such a difficult exercise. When a resident's inventory contains 20,000

uncategorised objects, how could even a small proportion of them remain significant?

Collective Wealth in Final Fantasy XI

Players' lay theories of exchange emphasised creating "wealth and value in others" (Weiner, 1980:73), which is partly attributable to game design. Groups of players are needed to gain experience points or complete missions for character development, and for fighting monsters that provide sought-after items. Though informal experience points parties are common, linkshells lie at the heart of players' experiences in FFXI. These organisations enter challenging battlefields that generate valuable goods which are distributed amongst members, reproducing material wealth, but also skills, capabilities and knowledges that are valued as important aspects of game world participation. For respondents, linkshell involvement was not explained as giving labour in exchange for future rewards, but as the generation of collective prosperity and power. Reciprocity was a sensitive issue, with players avoiding framing requests for aid in terms of returns for past help and sometimes denying that assistance was being given at all – Ftpol described entire days spent helping strangers as simply "going on adventures". This tacit contract of avoiding "even-Stephen" attitudes is made visible on rare occasions when it is broken. However, exchange without reciprocity is not always rooted in a desire to invest in the cultivation of others' capabilities or to uphold standards of behaviour. Some players described the difficulties of ducking reciprocity to remain socially unentangled or avoid returns that are hard to refuse – a problem with gendered dimensions. Respondents' ideas about appropriate conduct were rooted in an understanding, or at least self-acknowledged idealised hopes, of a moral universe (Durkheim, [1912]2001:168).

Within linkshells, members are expected to give time and assistance without any expectation of

compensation because their efforts enhance the powers and capacities of others. Chikasaw explains:

Chikasaw: I was trying to get the Corsair Job flag, and Garrick, an LS member, was trying to help us through the area with the Chigoes.¹⁹ he was level 73SMN²⁰ and died and then HP'd²¹ like 5 times taking an enormous EXP loss each time. we told him to stop and that we would just HP ourselves and come back another time, but he was persistent and eventually got us up as we had died as well and safely on our way

SR: Wow. He really was serious about helping you through. Why do you think he was willing to try so hard?

Chikasaw: We are Goonies.²² Goonies never say die. We relentlessly help everyone who joins the LS.

Garrick was the only person in Chikasaw's group who could resurrect the fallen party, but he was also dead. Each time he returned to his Home Point, Garrick lost 2,400 experience points, rather than 240 points that would have been lost if he had waited – and forced his friends to wait – for a passing stranger to resurrect them. The location Chikasaw describes was not in heavy use at the time, and the possibility of a lone healer wandering by was minimal. With Garrick's help, Chikasaw and her friends were able to access the Corsair job, enhancing the potential capabilities of their characters, as well as the range of skills available to the linkshell. Garrick's decision cost him hours of work in lost experience points, but opened new character development paths for his friends.

J, leader of a high performance linkshell had a similar view. He argued that linkshells are about investing in people.

My game goals currently include hitting 99 cloth[craft], and seeing how far we can take the LS. The LS tends to be my focus. There are still things I want, but they aren't as important as taking the linkshell and the people and helping them feel

¹⁹ Small flea-like monsters.

²⁰ Summoner, a combat job.

²¹ Returned to his home point. When a character dies and no one can resurrect him, he can choose to return to his home point, a pre-selected location where he will be resurrected automatically.

²² Goonies is the name of Chikasaw's linkshell.

successful, giving them victories to look forward to, to give them something that they can take with them into their real lives. i guess you could say my goals in game are to enrich the real lives of LS members

He goes on to say “this game has affected perceptions” of real life, as linkshell members learn through experience in virtual worlds that “items don't really mean as much as the people behind them”. Such statements could seem a bit extreme, or even self-serving, but interviewing other members of J's linkshell elicited similar views. Rank-and-file members recounted stories about leaders, including J, relinquishing claims to goods so newer members could share material wealth generated by the linkshell. The idea that a good linkshell invests in its members by reproducing valued skills, knowledges and power was repeatedly articulated in interviews. Sherlock, a member of J's group, put the matter quite bluntly: “if a leader only thinks about themselves the linkshell will fail miserably.” According to Sherlock, the best linkshells in FFXI have leaders who recognise that cultivating members' skills and helping everyone develop stronger characters ensures loyalty and creates a stronger linkshell – or alternatively phrased, generates collective wealth and power.

Linkshell members expect to be called upon for assistance but are subject to tacit rules about framing and responding to requests. An incident in Yukikaze exposes the limits of those constraints. During a linkshell event that failed badly – all members died multiple times – K, a junior linkshell leader, became angry about losing experience points. He demanded the linkshell organise a party immediately to regain lost experience points. His friends had been online for more than five hours, and many protested they were too tired to continue. When K became verbally aggressive, Rick, another linkshell leader, said, “We[']ll help u get it bck, K, but u cant ask like that.” His last words – “u cant ask like that” – were a redolent turn of phrase. A few days before K had used almost the same words to Dragonfly, a new member of Yukikaze, when Dragonfly placed a price

on helping with a scheduled linkshell activity. At that time, K responded to Dragonfly by saying, “You can't ask for it like that!” Dragonfly's membership in Yukikaze was terminated without much debate, with members agreeing that he did not understand the purpose of a linkshell. Returning to K's episode, Rick's savvy handling of the situation turned what could have spiralled into a nasty debate about entitlements into a quickly mollified fit of pique.

Linkshell members are constrained from talking about participation and goods bestowed in terms of reciprocity. Suggesting a price or demanding compensation, as Dragonfly and K did, violates players' sense of the linkshell as a “chosen family” (Battis, 2006), an institution that produces and reproduces more than desirable equipment, generating social ties and providing social networks of varying strength and emotional depth. Herald said, “An LS is not just fights. It's family.” Discussing equivalence within a linkshell is also discouraged because any attempt at balanced reciprocity for fifty people with competing desires could cause strife and would introduce the unwelcome business of keeping accounts. Though many high performance linkshells use points systems to assist in fair allocation of goods, these are used for regulating claims to wealth rather than as a quantifications of equivalence between labour given and items received. Between members there is an ideal of open reciprocity (Graeber, 2001:220), what Chikasaw described as “relentlessly help[ing]”, but this relationship must never be articulated as a reciprocal one.

Investment in reproducing skills, capabilities and experiences is not confined to formal social institutions like linkshells. Players also give time and effort to develop strangers' capabilities and skills. In describing such practices, participants drew on a very diffuse notion of reciprocity. Rather than A giving to B who responds in kind, or a lengthy chain of exchanges, in which A gives to B

and so on until Z gives to A, as described by Lévi-Strauss (1969), this reciprocity is diffused through the entire society of a FFXI server. Sukili, a long-term player and member of J's linkshell, explains:

I believe that there's sort of a game karma like a real life karma. People offer their help, there should be some reciprocation on your part in that same manner. Something like that. I don't help (give the gift of time/energy) [to] people looking to get something out of it. My hope is that they will return the favor to some other player who's randomly shouting in Jeuno for help fighting Dark Spark

The “game karma” that Sukili describes constitutes a “moral universe” (Durkheim, [1912]:2001:168), a belief that the beneficiaries of Good Samaritans should become givers in their turn. Sukili describes this feeling as “an impetus for me to help someone down the road”. If he were only interested in doing good deeds for others in return for past assistance received, Sukili would do more than help with quests or monster battles, he would give away his old equipment, pay transportation costs, craft items for strangers or write leveling guides and post them online. Rather than calling attention to what is received in exchange, this diluted form of reciprocity instead acts as a catalyst for reproduction, inspiring Sukili and other players to help other players through reproducing their own experiences and competences.

When Sukili answers a call for help with the Dark Spark fight, he is reproducing the results of that fight – Artefact Armour gloves, increased power and capacities – as well as the achievement of finishing the battle, for another player. When Garrick helps Chikasaw and friends access the Corsair job, he helps extend others' capabilities. After playing FFXI for many years, re-visiting old content with a new player is not like seeing it again for the first time, but it does restore some wonder and excitement. Reproduction goes both ways, with experienced players assisting in reproduction of power and knowledge, and novices restoring a sense of novelty and pleasure to

supplement repetitive routines in which many long-term players find themselves deeply enmeshed.

Even outside linkshells expectations or suggestions of direct reciprocity can cause problems. Such incidents involve power and perceived gender, and expose players' distinctions between objects and labour. Both female and male interviewees expressed hesitation about material gifts that were given, as KN described it, “because people wanted something from me”. Jadis explains:

i think it depends on the relationship you have with the gift giver. if i do not know the person well, i feel uncomfortable, yes, because i feel that something (either a gift or companionship) is expected of me.

For Jadis, a female player with a female avatar, and for KN, a male player with a female avatar, receiving valuable items from slight acquaintances is circumspect because the giver usually presents as male. In such situations, players are suspicious of obligations in the form of undesired romantic entanglements. Responses to such loaded gifts are similarly gendered, with Jadis describing them as “uncomfortable”, while for KN they are merely “annoying”. In a largely heteronormative environment like FFXI, male players with female characters like KN can reveal the gender of the person behind the avatar to relieve themselves of unwanted advances. However, female players with female characters must either directly refuse or ignore a gift, or lie about their offline gender. Refusing or ignoring a gift can lead to unpleasant or confrontational reactions similar to those cisgendered women and transwomen experience in everyday life when deflecting unwanted sexual attention. Thus it is not surprising that KN shrugs off strange gifts while female players like Jadis find them more difficult.

Players distinguish between gifts of material things and labour as a form of help. Both Jadis and KN were not inclined to accept expensive equipment or money from slight acquaintances, but help

with a battle would be acceptable. Lending labour is assistance rather than an outright gift, which alleviates anxiety about expectations or social entanglements. An exchange framed as giving help is closer to players' conceptions of how FFXI should operate, a world where cultivating skills and investing in others is valued in itself, rather than as an activity that requires a reward. When offered aid a player can still feel as if she has made her own contribution toward earning an item, rather than just receiving it. As Chikasaw put it, "the fun in FFXI is earning things". An unearned gift suggests, for many players, that a request is about to be made that they might normally refuse.

Mumi, a Russian software engineer, described another situation where direct reciprocity is awkward. For Mumi the problem is not an undesirable relationship or request, but rather unequal resources and power.

SR: There's an assumption that gifts are always reciprocal, that when A gives to B, that B will later give something to A. Do you think that holds true in FFXI?

Mumi: no

SR: Why not?

Mumi: often people who give gifts to you are at a different level. e.g. i usually dont expect anything in return when I give gifts to newbies and mostly i dont get anything back either

When Mumi uses the word "newbies" he means inexperienced players, a word that is nearly synonymous with "stranger" for him. Having played FFXI for over six years on the same server, Mumi has established a network of friends. Novice players with whom he interacts are invariably strangers met in response to appeals for help. Newer players are unable to offer an equivalent return for Mumi's labour, they have not yet acquired enough skill or power to offer anything that would be useful for him. Most inexperienced players realise this, and do not offer him anything in return but some new players do not yet understand why skilled players offer assistance. Help given by players with low level characters can be a burden rather than an asset, like having a clumsy

younger sibling whose assistance inevitably causes additional troubles. The difficulty lies not in the new relationship, but in a sense of obligation the novice player puts upon herself. Mumi notes “mostly I don't get anything back either” but by this he means things of value or that he finds useful. Some novices compensate helpers with crystals or items dropped by monsters, unaware that these things are routinely thrown away as garbage.

For players of FFXI, reciprocity is not a matter of one-to-one interactions, but part of a broader conceptualisation of idealised behaviours within a virtual world. Players imagine and theorise this moral universe, and try to reproduce it through their practices and relationships. This is not a perfect virtual world, as KN suggested, because other players do not always “live up to expectations” and Ashira described “drama and conflict” when others prioritise individual wealth or personal goals over collective well-being. Respondents distinguished exchanges of labour related to distribution of inalienable goods and reproduction of power (through extension of individual capacities and skills) from those involving commodities and money that are mediated by in-world economic institutions. Jadis' and KN's experiences highlight these distinctions and suggest gendered dimensions. Such exchanges in FFXI are rooted in a sense of a universe of moral actors in which reciprocity is open and diffuse, but to understand the meaning of these practices – why players are willing to give up their time to help strangers – we must attend to the skills, capabilities, knowledges and wealth they reproduce.

Sacrifices, Costs and Mediated Exchanges

This section explores exchanges mediated by virtual economic institutions: Auction Houses, bazaars, NPC merchants and regional vendors in FFXI; commerce and enterprise in SL. These

activities, though appearing to fall into a professionalised domain of virtual commerce and industry, are still everyday activities for many users of both worlds. For FFXI players, sacrifice and costs are equally important, but for SL residents involved in business, costs are more important. Though a range of popular and academic concepts are relevant, there are no strong parallels. Respondents' lay theories at this end of the spectrum are characterised by bricolage, piecing together ideas and terms from disparate materials and sources (Lévi-Strauss, 1985:26). Participants did not explain these exchanges as fundamentally different from those discussed in the last section. Rather they are just less focused on creating "value in others" (Weiner, 1980:73), and more concerned with profitability, costs and freedoms. Though participants in both field sites discussed sacrifices and costs, framings differed between sites in ways that are influenced by the design and structure of each world. Players are deeply invested in a game world where decisions are frequently framed in terms of sacrifice and costs – particularly in the dramatic, Romanticised fictive narratives of Vana'diel. Quantitative economic aspects of the game world, such as price movements, production costs and cost/profit comparisons, are already matters of public debate. For residents, costs or sacrifices are contrary to framings of SL as a place of leisure, which emphasise freedom – the pleasure of being or consuming anything – and costlessness. Sacrifices and costs suggest finitude, if not scarcity, which are at once novel and frightening in a consumption-oriented world. Amongst SL entrepreneurs with larger businesses, prestige language drawn from business and management was common. These ideas, when mixed with techno-utopian ideologies, produce ambivalent accounts that emphasise accounting for costs *and* the freedom of costlessness; the uniqueness of doing business in Second Life *and* the equivalence of SL and everyday business practices. Given the eclecticism of these lay theories, this review of relevant literatures is less coherent than those of other substantive chapters.

For both academic and lay theories, sacrifices and costs are not necessarily synonymous. For players of FFXI, costs are reckoned in gil; sacrifices, in time and labour. For SL residents, sacrifice is unpalatable, and costs are explained in business-like language. In anthropology, sacrifice has been associated with ceremonial exchange (Mauss, [1954]1970; Graeber, 2001), but Simmel ([1907]1971:45) argued that economic exchange in modern capitalist societies requires sacrifice also:

But economic exchange – whether it is of objects of labour or labour power invested in objects – always signifies the sacrifice of an otherwise useful good, however much eudaemonistic gain is involved. . .

So far as its immediate content is concerned, exchange is only the causally connected double event in which one subject now possesses something he did not have before and has given away something he did possess before. Thus, the isolated individual who sacrifices something in order to produce certain products, acts in exactly the same way as the subject who exchanges, the only difference being that his partner is not another subject but the natural order and regularity of things which, just like any other human being, does not satisfy our desires without a sacrifice. (Simmel, [1907]1971:83)

Sacrifice occurs only in that “causally connected double event” (Simmel, [1907]1971:82), within the limited sphere of exchange. For Simmel, sacrifice is not so much poetic as pragmatic. Desire, or the “distance between subject and object” (Simmel, [1907]1971:72), creates a sense of value, yet he ([1907]1971:291) distinguishes between desire as an impetus to exchange, and the “restraint of direct subjective desire” necessary for economic exchange. Thus the sacrifices that are experienced in exchange are objectified and distanced from subjective desires, relations and feelings, and also from wider social contexts. For Simmel, we can only relinquish what we can measure. Cosmological significance, social relations and sacrifices beyond the loss of time, labour, or a commodity are not included.

Simmel's conceptualisation of sacrifice is distinct from that of Mauss ([1954]1970:14-17), which requires not mutual, or fairly equal, relinquishment in a single transaction, but a contractual relationship or covenant. From Mauss' ([1954]1970:15) perspective, sacrifice entails “gods who give and repay [and] are there to give something great in exchange for something small”. Players' discussions of sacrifice lie somewhere in between Mauss' ([1854]1970) cosmological view and Simmel's ([1907]1971) transactional one. Though players associate sacrifice with time or labour, and can measure what has been lost, there are also tacit rules about which, and whose, sacrifices are socially significant, worthy of praise and acknowledgement, and which ones must remain unspoken. These framings are rooted in normative social practices, relations and expectations – not complaining even after many attempts to kill a monster do not produce a desired item, or praising a fighter who keeps a weaker character alive, but dies in the attempt – not only good behaviour in a single exchange.

Unlike Mauss ([1954]1970:15), Simmel's ([1907]1971:45) conceptualisation of sacrifice is close to generalised notions of costs in economics. Accountants and economists rely upon taxonomies of costs that exist independently of human activity or meaning – except the meaningful categorising activities of economists (see Callon, 1997). Sociologically, the possibility that unknown costs hover around us with their unforeseen consequences or influences trammelling our every move might make us feel like dupes. Economically speaking, there are simply multiple types of costs, not all of which are known to everyone. This is a reversal of Duesenberry's (1960:233) infamous quip: “Economics is all about how people make choices. Sociology is all about why they don't have any choices to make.” Costs identified by FFXI respondents most closely resemble production costs and transaction costs, the price of engaging in an exchange, or what is relinquished in agreeing to

an exchange with a firm or customer at a particular time and place (Mankiw, 2007:211). We could subsume these under Simmel's ([1907]1971:45) more general notion of sacrifice – something given up to acquire something else – but this obscures how players believe these costs work together to produce other economic processes, such as price stability, inflation and market moralities, as explored in chapter seven. We might also try to explore these costs in terms of calculation (see Callon, 1997; Callon et al., 2007; MacKenzie et al., 2007). Though FFXI players' accounts include quantitative calculations, analysis in Callonian calculative terms is unsuitable because respondents did not emphasise other themes from this literature, such as boundaries, externalities and modes of calculation.

Second Life entrepreneurs drew upon a range of ideas – only three mentioned costs, none spoke of sacrifice – with significant differences between petty entrepreneurs and owners of larger businesses. Subsistence and continuity rather than profits and costs were strong themes for petty entrepreneurs, which Eri described as being “happy with what I've got, not getting any bigger”. These approaches are similar to Jackson's (2009:80-85) low-growth and no-growth economic models. Admittedly, those who present a just-enough-to-get-by approach in SL are unlikely to be in a situation where “getting by” is precarious in their everyday life. The absence of necessities in Second Life – avatars require neither food, nor shelter or even clothing – also contributes to the development of such ways of thinking. Yet considering normative beliefs about endless consumption and limitless growth in SL, these theories are especially interesting.

Larger business owners struggled to reconcile prestige languages from economics and management with deeply felt techno-utopian ideologies. These interviewees, Gem Brava, Stroker

Serpentine and IntLibber Brautigan, are well known outside Second Life for their entrepreneurial success on the grid – the latter two preferred to be identified by their SL avatars' names rather than pseudonyms. One way of demonstrating business expertise and knowledge in SL is to deploy prestige language from business, management and economics. Thrift (2005:34) argues that use of such languages creates a transnational community of business expertise, a “cultural circuit of capitalism” through which business expertise is demonstrated and forms of capitalism performed. By using such jargon, respondents are signalling their membership and participation in a wider community of businesspersons and executives that extends beyond SL.

Yet entrepreneurial capitalism sits uneasily next to techno-utopian ideologies that are equally important for many SL residents. Transhumanism, mentioned by many residents, is a quasi-religious philosophy of human transcendence through technology. Its adherents await the Singularity – an emergent artificial intelligence (Kurzweil, 2006) – and expect that human immortality will be attainable within the lifespan of currently living persons (Kurzweil and Grossman, 2004). In this system of belief, information communication and biomedical technologies will allow human beings to transcend physical limitations. For transhumanists, virtual worlds and online spaces are sites of freedom, costless and dematerialised potentiality, proto-spaces for the emergence of the Singularity. Transhumanism's techno-utopian future, with its unproblematised privileging of heteronormative white male perspectives and strong Orientalist overtones, was problematic for me. I sometimes struggled to hear what respondents were trying to say about economic life in SL rather than political subtexts.

Subsistence and Transcendence in Second Life

Second Life presents a picture of digital goods duplicated or produced and circulating almost endlessly, a toy economy of petty entrepreneurs producing copiable merchandise at negligible costs that requires no transportation, mass production, storage or marketing. This outsider's view of Second Life as a site of unlimited desire and gratification – promulgated in mass media (Jefferies, 2009; Keegan, 2009, 2009a, 2010; Olson, 2010; Walters, 2009) – resembles the beliefs of some residents, and is accepted as a normative description of SL. In a world where many goods can be replicated and distributed instantly, where anyone has system rights to create goods, and access to in-world tools for producing them,²³ perhaps it is not surprising that residents do not emphasise sacrifice or costs, preferring to use other concepts to explain exchange. In interviews or discussions, sacrifice was not discussed except when the topic was introduced by me. Residents were puzzled by how a sacrifice could occur in SL. “You don't loose [sic] anything. You can buy more money or copy more items,” explained Tara. However, SL does offer some views of business-related exchanges with respect to costs. Petty entrepreneurs used a subsistence-oriented approach to explain business-related exchange, emphasising stability, continuity and non-growth, rather than expansion, profits or costs. Yet the importance of subsistence declines as businesses grow or require engagement with other companies outside SL. Owners of larger enterprises spoke of costs, employing economics and business terminology as a prestige language signaling their participation in a global business community. However, the language of Sir Alan Sugar does not always harmonise well with techno-utopian beliefs that are equally important for these respondents. This cognitive dissonance produces ambivalent accounts of business and

²³ Modelling software, scripting tools, 3D meshes and high resolution textures used to make high-end commodities can be expensive. Using such software requires more processing power and memory than the basic specifications of the Second Life viewer. Though all residents have access to basic production tools, not everyone has access to these extras.

exchange.

Differences between petty entrepreneurs and bigger business owners are not dichotomous, as evinced by the accounts of Vivian Tei and Eri Yume, boutique owners; Shiva Gane and Gem Brava, who run mid-sized businesses; and IntLibber Brautigam and Stroker Serpentine, whose SL businesses generate a living income in everyday life. Though these entrepreneurs do not always agree with one another, their views can be roughly grouped along a continuum with subsistence and small companies at one end and ambivalent framings and large companies at the other. Vivian and Eri are petty entrepreneurs, individuals whose businesses, on an average week, produce enough revenue to cover their rental fees. Their shops are on sublet land, which puts Eri and Vivian at the bottom of the rental chain and makes them quite vulnerable when tier fees rise. In SL, as in everyday life, when taxes or fixed costs increase it is not landlords who bear this burden, but their tenants.

Given narrow profit margins and lack of access to extra capital in everyday life – Eri was between jobs and Vivian was a student – I expected both women would be tracking rent increases, sales and whether they were losing money. Yet when asked about these issues, Vivian's response suggested otherwise:

SR: Do you and your business partner do any accounting related to your business?

Vivian Tei: I'm not sure I quite understand the question.

SR: Well, I've spoken to some business owners who keep paper records offline, or notecard records in SL of their sales, expenses (hours of work, employee wages, rental costs, tier costs) and compare that to their income.

Vivian Tei: ah, I see. No, we don't do anything like [that]. We just build and sell, don't pay much attention to how much we make, so long as we are making enough to cover whatever our expenses at the time may be.

Vivian's confusion about what accounting might mean in SL was typical of later interviews with small business owners, as was her emphasis on "making enough" to meet expenses. "Making enough to get by," as Eri Yume expressed it, is how many small businesspeople in SL make sense of their commercial affairs. Rather than drawing on pervasive economic discourses about growth and profits, such entrepreneurs talk about sustainability, continuity, social impacts and stability. Petty entrepreneurs are not in business to generate income for everyday life or even in SL. Such small businesses are social and ludic activities more than financial ones. For Vivian, who described her business as "just build[ing] and sell[ing]", making things is a pleasurable, social occupation; she and her business partner produce their merchandise together. Petty entrepreneurs' views are not analogous to climate change transition movements, or approaches to sustainable enterprise in everyday life as articulated by groups like the New Economics Foundation. Yet subsistence as explained by small business owners in SL and sustainability, as it appears in mass media or popular culture, have some common themes: a goal of low or no growth; and a sense of enterprise as having social functions in a community.

Second Life is a world ostensibly created by its users, and business owners believe their activities are part of this bigger world-making project. Making friends with customers and other entrepreneurs was cited as an "extra perk" of owning a business by Shiva Gane, while Vivian thought her store "makes a contribution to SL". Eri agreed: "making things is my contribution [to SL]". Commercial activities become a reproductive process, a way of making the world. Owners of mid-sized and large enterprises in SL also cite sociability as an important reason for remaining involved. Gem Brava, who has extensive business interests in SL, including selling real estate

along with poses and animations for couples, says her business is “something amazing, possibly as amazing as any SL native business story will ever be”. She describes her company as “creat[ing] opportunities” rather than creating opportunity costs.

Some business owners are concerned with costs as well as sociability. Three respondents talked about these issues: Stroker Serpentine, IntLibber Brautigan and Shiva Gane. For Shiva, talking about and working out “costs of business” is a necessary part of running her company.

The transaction, the customer service, the budgeting, all of that is like real-world business. Just on a smaller scale :) . . . Not only do I have to manage the business, the servers, etc, I also have to do marketing and such.

Using words like “transaction”, “customer service” and “marketing”, familiar corporate language, further emphasises that her company is “like a real-world business”. Shiva's company provides streaming media services inside SL that are sourced outside the virtual world. She deals with data centres in North America, Europe and Asia, purchasing services that are then rented by residents. Shiva receives receipts from non-SL companies and keeps records of externally purchased and internally provided services to remunerate her employees, who work on a share-of-profits basis.²⁴ She also identified transaction costs, like Value Added Tax, that can be avoided. Shiva pays a friend in the United States to rent land for her shop to avoid paying VAT on tier fees. She also acknowledges production and opportunity costs. Recently Shiva moved some servers from one data centre to another to take advantage of cheaper service prices, but this also entailed data transfer expenses. Her virtual business, as it is tied to material things outside SL, incurs what she understands as “real” costs.

²⁴ This is not a standard remuneration model in SL.

Unlike Eri and Vivian, who are not seeking business growth, Shiva keeps track of costs to budget for future expansions, such as her recent purchase of new server space in an Asian data centre. Shiva emphasises that her company is “just like a real-world business”, though for smaller stakes. According to this pragmatic approach, Second Life is the same as the everyday world, which places Shiva between subsistence-oriented positions of Eri, Vivian and consumption-oriented residents, for whom costs are not part of thinking about exchange in SL, and the more utopian visions of large business owners, Stroker and IntLibber. Stroker and IntLibber argue that conditions of exchange and business in SL are fundamentally different from everyday life because of costlessness in digital production and dissemination of goods. Yet both men still speak of expenses, costs and profits; such language constitutes a claim to participation in wider business cultures. Being a company owner confers prestige, especially when that business is known outside of SL, as is the case with both Stroker and IntLibber, who have attained the local equivalent of celebrity status. Being an SL executive means using languages of contemporary global capitalism. Both men spoke freely about specific costs in SL, using terms from management and economics. IntLibber talked about “capital costs” in the real estate sector; explained “fiat monies” and monetary regulation and manipulation in SL (see chapter six); presented an account of his newest project, a commission to establish rules for securities trading in SL; and used



The headquarters of IntLibber's SL stock exchange.

professional language in mapping his business-related relationships, referring to “business partners”, “associates”, “executives” and “personnel management”. Stroker argued the importance

of “track[ing] sales and profitability”; discussed “outsourcing cost issues” when hiring contract labour; and presented a sophisticated account of intellectual property challenges faced by SL entrepreneurs. These conversations illustrate the extent to which some large business owners have internalised contemporary business rhetorics and ways of thinking through their commercial interests.

Though Stroker and IntLibber voiced pragmatic views of day-to-day business activities, they also presented equally strong visions of SL as a world providing freedom from economic costs. For these businessmen, there is tacit tension between ideologically-infused views of Second Life as a digital utopia and quotidian aspects of their enterprises. There is a gap between their practices and analyses of business – in which exchanges have certain costs – and a belief in Second Life as a virtual world of unfettered possibilities. In this view, SL is different from everyday life, it represents an opportunity to do business without conventional cost constraints or obstacles. Stroker links freedom, self-determination and business when he describes his work:

Freedom to express myself in a medium that challenges me creatively. Freedom from boredom and complacency. Freedom to be as successful as I choose to be, not contingent upon suppliers or raw materials.

From Stroker's point of view, SL offers freedom to and freedom from. The freedom from which he has been released is one of external costs. Compared with the material problems posed by costs he previously faced as a plumbing contractor, digital production and distribution of goods in SL seems remarkably costless. IntLibber also associates freedom, opportunity and costlessness in a vision of a digitised economic utopia:

how SL is different is that its actually far easier for an experienced busienssman who may not be in the best circumstances at the moment, to be very successful here. my experience is proof of that. SL gives many people who for various

reasons in RL cannot be economically successful, but not due to lack of drive or creativity.

According to IntLibber, Second Life allows ordinary people, who might not succeed in everyday life “because we are not ivy leaguers with lots of corporate contacts and trust fund backers”, to start their own enterprises. IntLibber and Stroker, like other large business owners in SL, are emotionally invested in two different versions of Second Life. The first is a pragmatic orientation based on their entrepreneurial practices. The second is a view of virtual worlds as a costless, free domains enhancing human potential. The latter is influenced by transhumanism and prevailing views of SL promoted by Linden Lab, the former by aspirations to participate in an imagined transnational executive class or capitalist business culture.

At the end of our interview, Stroker turned the tables and asked me a question:

Stroker: Are you familiar with Richard Bach? The author?

SR: Of Jonathan Livingston Seagull fame?

Stroker: Yes...Jonathan Livingston Seagull fame. Everyone seems to enjoy making the correlation between Neal Stephenson's "Snow Crash" and the impending "Metaverse". I submit that the writings of Richard Bach will have a much more prevailing impact on our interactions as they relate to virtual spaces. Argue for your limitations, and sure enough they're yours. Ask yourself the secret of YOUR success. Listen to your answer, and practice it.

Bach is not only the author of the novel Jonathon Livingston Seagull, he is also claimed by the transhumanist movement as populariser. For Stroker, SL is a site for human transformation, echoing Philip Rosedale's declaration that Second Life “advances the human condition”. An emphasis on finding one's own success is also reminiscent of management and motivational speakers, who enjoin their listeners to seek self-actualisation or optimise their potential. From this perspective, SL is utopia, a boundless empowering space where anyone might become anything. IntLibber was more explicit about connections between SL, economics and transhumanism:

Before getting into SL, I was a member of a think tank called the Extropy Institute. I have studied transhumanist philosophy and economics for many years, so coming into SL, I immediately recognised the exponential phenomenon at work in this pure information economy.

A “pure information economy” is disconnected from materialities (Crawford, 2006:8), set free from costs and physical limitations. Second Life represents the bleeding edge of what is to come for transhumanists, a world where humans are liberated from their “meat puppet” bodies and exist as digitised avatars, weightless, costless, limitless and “free”. When listening to successful entrepreneurs in SL like Stroker Serpentine and IntLibber, it is difficult to disentangle political and economic framings of freedom, aspirational prestige language and visions of digitised utopia.

Costs and Levelling Economic Playing Fields in FFXI

Players of Final Fantasy XI draw on conceptualisations of cost from economics and accounting as well as distinguishing between sacrifice and cost according to how losses were created and measured. FFXI gamers are very sensitive to “game addiction” discussions in academic (Chiu, et al, 2004; Lee and Shin, 2004; Shapiro and McDonald, 1992; Suler and Phillips, 1999; Turkle, 1996) and popular writing (Jimenez, 2007; Naughton, 2005; Scheeres, 2001; Shachtman, 1999). Aware that their hobby is a subject of public debate, players presented reflexive meta-analyses of sacrifices and costs incurred through engagement with the game world as an object of consumption which correspond to opportunity costs. Though FFXI is ostensibly a game, many players had pragmatic orientations to allocations of their time. As for exchange in-world, analysis of materials and finished goods prices and profit margins is a preoccupation amongst skilled crafters. Even those without any crafting skills talk about production and commercial transactions in this way. Participants stressed the extent to which player-created tools to manage, record and

disseminate economic information have made such discussions easier by making real-time production costs and calculations widely available.

For players, sacrifices are reckoned in time (or its tacit proxy, experience points) and costs in gil, but there is one exception. Time used to play the game is understood loosely as a cost.

Participants argued that games like FFXI can easily become all-absorbing leisure activities.

J: it becomes a life style. you got a day off. what are you doing. probably playing the game, run out do a couple errands, like get groceries pay the bills etc. but then you're likely back online

Though J has a stressful job that sometimes requires travel, and he runs a high performance linkshell in FFXI, he notes that “time with family” is carefully allocated, set apart from “time for playing [FFXI]”. Other respondents had similar views, and acknowledged costs of over-investing in a virtual world like losing touch with family members or friends, and explained strategies for avoiding time-related costs and maintaining social obligations. Many interviewees take a hiatus from playing to prepare for exams or major deadlines at work. Mia, a linkshell leader, said, “I pretty much take a full-time leave from the game when school gets busy”. Strummer, a social player, carefully schedules gym visits to keep fit, a concern familiar to Wally, a long-term player who was undertaking an intense physical training course in preparation for joining the United States Marine Corps. Rather than downplaying time-costs of participation, many players clearly articulated the stakes for their personal lives and goals. Vlad, an American player involved with FFXI for seven years, said bluntly: “If I sat around and played too much, I couldn't go golfing, bowling or do my job.” Vlad repairs industrial heating and air conditioning units, lifting and manipulating heavy machine parts. These accounts are analogous to the economic concept of “opportunity cost”, or something given up for the chance or possibility of acquiring something else (Mankiw, 2007:7). The

key word in this definition is “possibility”, there is no guarantee of acquisition. When players choose to log in, they are giving up time for potential virtual gains.

Time lost after log-in can be a sacrifice or a frustrating waste. The latter is nearly always justifiable reason for complaint, the former is contingent. A conversation between K and Molaikai, members of Yukikaze, illustrates irritation over lost time:

K: I hate playing with kids. I've been waiting two hours to get this party started.

Molaikai: me too. The thing I like about playing with adults is that you have a limited time schedule, so when you log on, you want to get things done.

K: I want to spend my time doing something. I hate people who waste it.

Two hours spent waiting for other players to fetch equipment, food and supplies is a waste that K attributes to the supposed youth of other players in his party. On another occasion, when asked why he kept paying for a third account that has a low level character he made for his wife, K replied, “I can make more money. I can't make more time.” Time invested in his wife's character, like time spent waiting for other players, was unrecoverable. However, unlike time lost to waiting, time spent developing his wife's character can be reclaimed for later use. If his wife decided to play again, her previous investments would not be wasted, whereas K can do nothing to regain idle time. For Molaikai and K, a player's time in FFXI must be invested wisely because it is not recoverable. Inaction is wasted time, and some players elevate avoidance of idleness to a frenetic art. While waiting for linkshell activities, Kasha played Halo on a second computer and kept up a steady patten of talk on external voice chat. Dilly, a healer in Yukikaze, played puzzle games while waiting for linkshell events to start, and sometimes during fights. Some players operate two characters at once to achieve an accelerated pace of play with few empty moments. There was also strong sense amongst respondents that once they are logged in to FFXI, it is better to spend

time helping others accomplish their goals than sit on the sidelines because a chronological sacrifice has been made already, they have logged in and chosen to spend the evening, morning or weekend in Vana'diel. “What's the point of just standing around doing nothing?” asks Ftpol.

When time lost can be measured, it is safe to complain about it and acknowledge it as a loss.

When time is not idled away but lost because of death – or made calculable in terms of experience points – players must exercise caution in expressing frustration. As they are constrained from suggesting tit-for-tat reciprocity, players are also expected to avoid bemoaning lost experience points incurred while helping others or participating in linkshell activities. To die in a group activity, or to “pull a Jesus” as Kasha says, is a sacrifice of time (and experience points) for a greater good.

When players die many times – like the botched event that made K upset, or Garrick's repeated deaths helping Chikasaw – this loss is understood as a sacrifice. To articulate it as a cost is tactless. There is a fine line between a good moan and passing negative judgement on others' performances that players must be careful not to cross. Overemphasis upon one's own losses is considered poor sportsmanship, but it is particularly offensive within linkshells, where members are supposed to share an aim of earning collective, not individual, wealth and power.

Complex conditions of production – various techniques for extraction of raw materials, multiple levels of refining and eventual production of commodities – influence how players understand economic life in Final Fantasy XI. Even before the development of econometric tools available on the FFXI Auction House website, players who were dependent upon crafting or extraction of resources for their virtual income tracked of prices for raw materials at the Auction House and, where applicable, from non-player merchants. MadMartinHeidegger, now retired from FFXI,

explains:

I used to keep spreadsheets: how much [ore] was mined, how long it took, how many [ores] bought, at what prices. Then I know what the price has to be [on the Auction House] to sell the ingots. Its the only way to avoid heavy losses while skilling up [goldsmithing].

For MadMartinHeidegger, understanding where his gil is spent is crucial because money in FFXI can be difficult to earn, especially while developing crafting skills. The best items to make for skill increases sometimes require odd components and have narrow profit margins. Operating at a loss means stalled progression and hours spent extracting resources and generating crafting components or commodities for sale. For crafters, production is a question of costs, and players' discussions of cost/profit relationships is similar to cost/benefit analysis and economic notions of production costs.

Goldsmithing is the most expensive trade in FFXI, but MadMartinHeidegger is not eccentric. Herald kept detailed records of his gardening results, expenses and sales. On Dunes' recommendation, I asked Herald about starting up a virtual garden:

Herald: Grow elemental ores! 20-100k each.

SR: What furniture do I need?

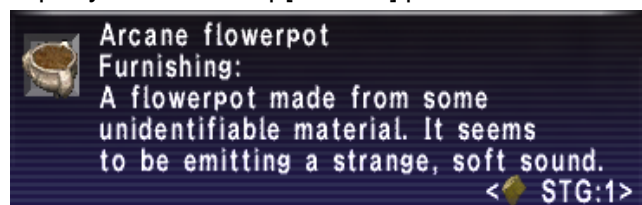
Herald: You need wooden benches to boost earth element 3k each. Buy porcelain or brass pots first, about 1-2k.

SR: that's cheap!

Herald: Not really. You've got to save for arcane pots. They make more elemental ores. They're 100k so thats 5-10 ores. Keep crystals from exp[erience] pts [parties] to feed the plants. You can grow your own [tree] saplings from cuttings to grow ores.

SR: I can farm those with Vlad.

Herald: yep. In the [Bhoyadha] tree.



Herald explained initial capital costs and outlined a rough plan for novices: save money to buy arcane flowerpots, which increase harvesting yields. He suggested minimising costs by growing

tree saplings rather than buying them. For Herald and MadMartinHeidegger, production costs are a necessary part of their virtual money-generating activities. Tracking how much they spend is necessary to evaluate the effectiveness of their strategies. When asked why he kept such records, MadMartinHeidegger replied, "How would I know if I'm losing money or not? The point is making money so I can buy some equipment, not operating at a loss!"

Before the FFXI Auction House (FFXIAH) website was created in 2006, tracking production costs required large amounts of time at Auction Houses looking through recent transactions and making spreadsheets. The development of FFXIAH has made this data available in real time for every item that can be bought and sold. The FFXI Auction House website provides separately generated pages for items that shows detailed production costs and related crafting recipes. Rather than being the domain of calculator-wielding crafters, production costs are now common knowledge amongst all players. B, a social player with a high-level character, expresses enthusiasm for the FFXI Auction House website:

Its a great way to find out how much something is worth without having to go to the AH in game, but they have built in a lot of neat features that show recipes and calculate the profit you can make from synthing items.

For B, the profit margin calculations are interesting trivia because he is not a crafter, but for those who are, this is an essential resource.

For Sukili and Ramuss, high performance players with some crafting experience, widespread knowledge of production costs can be a "double edged sword".

SR: Has FFXIAH changed how people buy and sell in FFXI?

Sukili: It's so much easier. infinitely easier

Ramuss: It has, it now gives people the ability to look at the market trends over a

large periods of time, as well as the cost/reward ratio to crafting. Now any average joe, can rock up and look at a synth and be like hey! i can make a quick 50k then of course others will do same and item will dwindle in price. had this happen to me when i was experimenting with a friends goldcrafting account (guess i was that average joe =/)

SR: So FFXIAH allows people to benefit from knowledge that might have been hard to find before?

Sukili: Agreed. It's a lot easier for other people grasp what's going on in a very concise manner

SR: And now the controversial question: Is this positive or negative?

Ramuss: over all, it is a positive and a negative. Like, people gain the ability to have a fair price on items but it ruins the market for crafters and with so many crafters now, its hard enough as it is

Sukili: The positive is that it doesn't exclude people

Ramuss: its like a uneven double edged sword!

Quick assessments of potential profitability are positive, according to Ramuss and Sukili, because they makes losses less likely for most players. However, there are now more crafters armed with detailed, ready-made information about economic conditions. Taking advantage of a low cost synthesis becomes something any "average joe" can "rock up" and do, rather than being a feat of skill achieved by a few craftsmen who worked hard to figure out such costs and profited by that extra work. Advantages acquired through record keeping have been demolished.

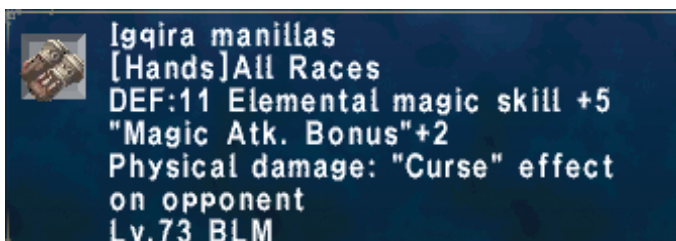
This leveled playing field generated by economic data disseminated through FFXIAH has inspired skilled craftsmen to seek different ways to offset production costs. Rather than looking for a series of short-term niches – objects temporarily in demand or shortage that can be cheaply produced for a price above the usual odds – such players turn to alternative modes of exchange. Sherlock is a highly skilled clothcrafter who has a fairly prosperous cottage industry based on one expensive commodity: Cursed Mitts. There are only a few other clothcrafters on his server who are able to produce this item, but materials supply problems create periodic gluts that are worsened by slow sale rates. Sherlock notes that oversupply leads to "undercutting in the Auction House". Like

other clothcrafters, Sherlock's ability to make Cursed Mitts is tied to the supply of materials, and when ingredients are available, he will make the mitts, just like other clothcrafters. However, he recognises the costs of selling at the same time as everyone else in the Auction House:

its not hard to check ffxiah.com to see that item X sells 1 or 2 a day and there are 8 up. why put a 9th one up? it's idiotic.

Listing another pair of mitts and undercutting in hopes of his mitts selling first is not an optimal strategy, because this lowers the average price, and everyone's profits. Auction House listings have a limited time period, so when there is a large supply of expensive goods sellers sometimes undercut one another so their own items will sell first (listings with cheaper demand prices are cleared before those with higher ones, even if the former were submitted before the latter). Ashira recounts a story with the same theme:

Friend of mine, bonecrafter, synthed up a bunch of the HQ igqira hands, BLM piece. they had been on the AH, selling maybe 1 a day or so, at a pretty decent price. he bazaared one at a time, daily when he afk'd for the night for at least 100k below the AH price history I believe, which was still a great profit for him.



People would buy them, either for themselves or thinking, hey I can put this on the AH and make a profit. Suddenly, there were 4-5 on the AH when usually there was only 1 and the price crashed.

Like Ashira's friend, who chose to sell through his bazaar rather than the Auction House, Sherlock also sought other modes of exchange to avoid extra AH fees:

do a search on ffxiah for cursed mitts, i made a sales comment,²⁵ ive sold probably 20-30 pairs through /tells from people who saw it, and yes ive also seen a person put a message up they wanted to buy cursed mitts, i sent i sent them a tell. . . so I sell more without having to undercut on the AH. i've sold probably 10 pairs for 200k while the AH has been 230-250k. if i would have undercut each of these 10k the AH would be at 150k now

²⁵ A sales comment is an open listing on the FFXIAH website indicating that a player has an item for sale or can produce it to order.

Though his profit is ostensibly smaller – Sherlock received a lower price of 200,000 gil rather than 230,000 to 250,000 gil – he has not paid an Auction House fee, which would be over 22,000 gil if he had listed his Cursed Mitts with a demand price of 230,000 gil. He has also avoided the possibility of being undercut by other sellers, which could leave him in the unenviable position of having paid a hefty fee to list an item that did not sell. Sherlock, and other crafters like him, think through multiple kinds of costs when producing and selling goods.

Reproduction, Exchange and Costs

Lay theories of exchange offer a mix of new and old ideas and draw attention to marginalised perspectives. In both FFXI and SL exchange plays a crucial role in reproducing social ties, skills, knowledges and developing wealth in others. Reciprocity-oriented approaches to exchange that seek equivalence – whether within a single transaction or in a network of exchanges – obscure or ignore the significance of many forms of exchange in both sites. A reproductive approach that asks what is produced, reproduced or maintained more closely reflects local accounts and practices, which are partly shaped in FFXI by game design. Discussion of costs in FFXI again illustrate the importance of production, but also highlight how the FFXIAH website has equalised access to econometric information – a theme that will be explored in chapter seven. Finally, approaches to cost in Second Life illustrate a range of positions, but the extremes – subsistence-oriented approaches and costless, weightless virtual economies – are evocative tools to think with, and both approaches are enabled by particular qualities of SL's virtual world.

Respondents' accounts of reproduction in exchange suggest that insights from anthropology and

studies of material culture could be useful for economic sociology. Examining what is returned as equivalence, or the dimensions of reciprocity, cannot explain why a man who is neither hungry nor thirsty enters a coffee shop and accepts a drink and biscuit from a companion. We are left with one-sided explanations: acceptance of the cookie creates a fuzzy feeling for the giver; or the coffee is offered in exchange for a previous act of giving; or the tantalising odour of baked goods. All these things, and more, may contribute to the man without hunger or thirst consuming his coffee and biscuit, but we are left with the question of what it means when a person is not in want but drinks and eats anyway. If we ask what is made in this interaction, what is facilitated, what is reproduced, then interesting possibilities arise. Sharing the experience of consumption produces and reproduces social ties, it facilitates sociability, it reproduces and reinforces valued ways of being in the world. In Second Life, residents' replication and circulation of goods functions in this fashion. No one needs a stuffed penguin or a dancing cow, but exchanging these goods helps residents forge social ties with one another, even if the means by which these ties or sociable moments are produced creates a sea of goods that slowly become meaningless.

Accumulation of collective wealth in FFXI suggests intriguing parallels with collaborative consumption (Botsman and Rogers, 2010) and sustainability, as do subsistence-oriented approaches in SL. It is indeed curious that suggestions for living on a finite planet are to be found in realms of practically limitless digital virtual goods. Yet contributing factors in the development of players' collective accumulation strategies and residents' subsistence oriented approaches are relevant to continuing efforts to promote sustainable, lower levels of consumption. The accounts of FFXI players suggest that collective wealth – or limits to individual consumption – can be successful in smaller communities united by shared goals that seem to be achievable, as

supported by observable change – players' work is rewarded on a fairly regular basis with goods they have earned together. Final Fantasy XI's game designers have structured the world's tasks, activities and achievements so that no adventurer is an island. Co-operation, mutual aid and collective action occur by design. Though it is possible to resist these pressures, an overwhelming majority of players embrace notions of collective wealth and reproductive exchange. The ease with which such ideas are taken up suggests that individualised conceptualisations of consumption and transactional and reciprocal views of exchange in contemporary Western consumer societies require further scrutiny. The “new age” of social sharing and collaborative consumption trumpeted by social media gurus (Tapscott and Williams, 2008, 2010; Benkler, 2007; Zandt, 2010) may not be as new as we think.

In Second Life, subsistence-oriented approaches to exchange are certainly influenced by the absence of necessities for avatars. There is absolutely nothing that an avatar needs inside the virtual world, there are only things users want. Yet petty entrepreneurs discuss aspects of exchange and economic life that are increasingly vital as we struggle to accept and adapt to the finitude of natural resources on this planet – particularly in Western consumer societies, where economic growth is considered unassailable wisdom, and is premised on rising levels of consumption. Small business owners who prioritised continuance and stability over growth, support – in a very small and limited way – Jackson's (2009:10) call to re-think economics for a sustainable future. Exchange with subsistence as its goal has different concerns and dimensions, which urgently require more exploration. Such research should be conducted with social enterprises in everyday life, but could also involve owners of online businesses like Vivian Tei and Eri Yume.

In both worlds, when reciprocity is important, it is not sequestered in discrete interactions but diffused through social networks. This diffuse reciprocity, which resembles Graeber's (2001:220) open reciprocity, is part of residents' and players' shared understandings of what living a Second Life should entail, or how to behave properly in FFXI. The "game karma" Sukili describes is not a universe of moral actors, but a moral universe (Durkheim, [1912]:2001:168) in which actors share understandings of what constitutes good behaviour. In such a world, adherence to these norms will be rewarded, perhaps not immediately, but eventually. This link between economic understandings and existential politics is reflected in reproductive exchanges that reproduce some ways of being in the world over others – such as the importance of an attractive avatar rather than knowledge about building items in SL – and is a key concern in lay theories of money, which are strongly linked to existential politics. In Second Life, theories of money are inseparable from claims about "right" ways of being in the world and who has the "right" to exist on the grid.

At the other end of respondents' exchange theories are discussions of costs and sacrifices in FFXI and SL. Players' distinctions between costs measured in money and sacrifices measured in time – or the proxy of experience points – call our attention to chronologies. Time can be framed in terms of speed; efficiency, which is reflected in anxieties over wasted or idle time; and even as an investment, like K's description of developing his wife's character. Lay theorists call attention to time as something more than a unit to be measured, particularly in their worries about wasted time. What drives Dilly to play puzzle games while also playing his character in FFXI? Why do players enjoy using two characters at once? These lay theorists draw attention to time as an under-conceptualised element of economic life. In interviews and participant observation, FFXI players talked about time frequently – though not always in conjunction with economic life. I have tried to

incorporate these themes, though they are beyond the scope of this project, but this minimal treatment does not reflect their salience for players. Discussion of costs in FFXI illustrates the importance of production in lay theories and shows how one website, created to respond to the needs of a small segment of the game's player base, has become indispensable for all. The database and script that checks in-world Auction House sales are technologies that make the economies of FFXI visible for everyone, making public information that was previously the province of a few players like MadMartinHeidegger and Herald, who recorded and analysed transaction records in their server's Auction Houses on their own. Players' discussions of costs and profits are sophisticated lay accounting, and also reflect cost categories and taxonomies in economics.

At this end of the spectrum in Second Life is IntLibber Brautigan's "pure information economy" and conflicts between business languages and deeply felt techno-utopianism. This ambiguity arises from duelling aspirations. On the one hand, many SL residents have internalised early hyperbolic rhetoric from Philip Rosedale and other founding members of Linden Lab about SL as a transformative technology that will, in unspecified ways, improve human lives and societies. Through participating in SL – dimensions of "acceptable" participation vary considerably, as the next chapter reveals – residents are producing this transformation. In the same way that reproducing prestige languages reflects aspirations to participate, or be perceived to participate, in a community of transnational business persons, internalising techno-utopian framings of SL shows an aspiration to be, as Goffman would say, *where the action is*. These emotionally evocative aspirations to be in the centre – of a transformational techno-utopian project, of an international executive community – not the periphery, obscure ambivalence or contradiction. The action looms too large for conflicts between hard-nosed capitalist pragmatism and transhumanist transcendence

to be seen.

Respondents' theories of exchange share themes with those of value. Comparative production costs in FFXI are linked to economic valuation strategies, relying also upon item generation knowledge. Emphasis in both sites on exchange as reproduction is connected to generalised conceptions of value based on connections between persons and objects. Yet exchange also introduces new priorities: practices, such as undercutting in the AH in FFXI; prestige language, status and participation for business owners in SL; predictive economic models, like Ashira's and Sherlock's links between undercutting and price crashes. Lay theories of exchange bridge a gap between theories of value and theories of money and markets. Regular reference to practices in FFXI players' accounts of costs and sacrifice resembles practice-oriented theories of money and markets more than reproductive exchange or lay theories of value, though concerns with long-term stability, social engagement through enterprise, reproduction of knowledges and valued ways of being in the world – particularly evident in ambivalent entanglements of prestige languages from business and management with transhumanist beliefs amongst some SL entrepreneurs – show strong continuity with lay theories of reproductive exchange, value and monies.

Chapter VI: Monies

Participants' theories of monies build on practice-based themes from accounts of exchange. Though academic literatures on money – the singular is nearly always used – in sociology, anthropology and economics are fragmented and disorganised, lay theories of monies are pragmatic. Within each discipline money scholars are entrenched in insular communities that talk past one another rather than benefiting from interdisciplinary engagement, creating what Dodd (2005:387) describes as a “conceptual muddle”. Respondents in both *Second Life* and *Final Fantasy XI* applied Occam’s razor parsimoniously, resisting abstract theorising in favour of practices. This approach contrasts with respondents' theories of value, but is similar to framings of markets, discussed in chapter seven. For participants, monies are not constituted by what they are – materiality, form, denomination or design – but by how they can be used and what they do. Lay theories are not simply “money is what money does”, though that is sufficient description for economists (Ingham, 1998:3). Instead, respondents understand money through their own practices and what money seems to do; monies are both tools and actors, or at least artefacts imbued with agency.

Respondents in both field sites understood monies as economic, social or political tools. However, conceptualising monies as tools can be misleading. It suggests utilitarian objects, means existing without moral or political contexts. This is not how lay theorists understand monies, and it is not how Simmel ([1907]1978:221) explains money either. Though he ([1907]1978:210, 211) describes money as “the purest form of the tool” and an “absolute means” Simmel ([1907]1978:210) also wrote:

The nature and effectiveness of money is not to be found simply in the coin that I hold in my hand; its qualities are invested in the social organizations and the supra-subjective norms that make this coin a tool of endlessly diverse and extensive uses despite its material limitations, its insignificance and rigidity.

If money is a tool, it is a Swiss Army knife loaded with mysterious gadgets and familiar devices whose many uses are socially and historically contingent (Simmel, [1907]1978:221-227, 232-234).

For Simmel ([1907]1978:210, 211), this pure tool is a Platonic form, an ideal that could never be achieved in reality, though in contemporary capitalist consumer societies some monies approach what he envisioned.

Respondents described a range of money practices beyond standard functions outlined in undergraduate economic textbooks: store of value, unit of account, mode of deferring payment, or medium of exchange (Mankiw, 2007:343). Lay theories describe monies that reproduce and sustain communities, fostering social inclusion, themes familiar from local and parallel currencies literatures (Williams, 1996; Williams et al., 2006; North, 1999; Peacock, 2006; Seyfang, 2001a, 2001b, 2003). Respondents' accounts in SL illustrate how money is bound to political power (Falola, 1995:163-165). Monies can be used as adornment (Graeber, 2001:91-93) in FFXI while residents of SL cannot speak of money without also discussing what it means to live a "good Second Life". What the Linden dollar is and how it should be used are entangled with notions of being a proper virtual citizen and "right" ways of being in Second Life. Money becomes an actor that facilitates distinctions between people who are living "correctly" and unsavoury persons.

Respondents, particularly players of FFXI, imbued monies with agency. It is not novel to suggest that money acts. Folk wisdom cautions the unwary against money's wiles, its fatal attractions. It is

less usual to ask what kind of actor money might be. Simmel ([1907]1978:217-218) recognised that money is not a neutral object with respect to power and influence:

The wealthy man enjoys advantages beyond the enjoyment of what he can buy with his money. The merchant supplies him more reliably and more cheaply than he does poorer people; everyone he meets is more deferential; he moves in an ideal atmosphere of unquestioned privilege. . . This usurious interest upon wealthy, these advantages its possessor gains without being obliged to give anything in return are bound up in with the money form of value. . . The pure potentiality of money as a means is distilled in a general conception of power and significance for the owner of money. (Simmel, [1907]1978:217-218)

This “unearned increment of wealth” (Simmel, [1907]1978:217) suggests that when assembled in sufficient quantity, money itself becomes an actor, or at least a thing whose possession motivates other human actors to certain courses of action toward its owner.

This chapter takes a follow-the-money approach to examine lay theories using the tools participants suggested: practices. Where money goes is important, but so are the ways it moves and changes along the journey. Patterns of monetary circulation are not what define monies as objects or concepts, although Knorr Cetina (2003, 2005; Knorr Cetina and Bruegger, 2002) has suggested a similar approach should define the study of markets. For money – unlike markets – flows or patterns of circulation are not always as important as the practices and uses that produce or enable these movement of monies. Assembling accounts of how monies are used by different groups within each field site illustrates the importance of money as an actor, which in turn supports an argument that power and monetary diversification are crucial dimensions for understanding what monies are.

Finally, some terminological clarification. Second Life appears to have only one money, the Linden

dollar, but its economy is interpenetrated by multiple monies from everyday life, while FFXI has over a dozen distinct monies. For the purpose of this chapter, monies are differentiated as follows: state-issued monies are referred to as currencies, distinguishing them from monies not backed by nation states. Euros, pounds sterling and roubles, whether circulated digitally or held in bills and coins, are currencies. Token monies include point or token collection systems such as Nectar or Tesco Points and local or parallel monies. Proprietary forms of credit, like mobile phone credit or Oyster top-ups purchased on pay-as-you-go plans are also token monies. Money-like objects are items whose uses are similar to money – loyalty scheme stamp cards: buy nine coffees get the tenth one free – or coupons; these objects resemble money but are tied to specific, narrowly defined spheres of exchange. Reproduction coins are another example of money-like objects. Commodity monies are monies that are both commodities for the value of their material qualities and valuable as money. Ancient coinage and special issues of coins or bills are as much commodity money as a *louis d'or*.

Academic Theories of Money

There are two problems in sociological, economic, and to a lesser extent in anthropological, discussions of money: a nearly obsessive focus on state monies (Bryan and Rafferty, 2007:135); and relative disinterest in politics and moralities of money (Dodd, 1994:162-163). This historically myopic focus on state-issued currencies is a feature of sociological (Ingham, 1996, 1998, 2004; Zelizer, 1994; Fine and Lapavitsas, 2000; Carruthers and Espeland, 1998) and economic conceptualisations of money (Mankiw, 2007; Galbraith, [1974]1992; Loewenstein, 2008; Böhm-Bawerk, [1888]1891) – with the exception of Hayek (1990), who argued for monetary denationalisation. This is an intellectual curiosity, as unified state currencies are a recent

innovation (Dodd, 1994:24; Chown, 1994:17; Bruce-Mitford, 1974). Unproblematised moral and political dimensions of money, recognised by Dodd (1994:162-163) and Hart (2000),²⁶ are also strange given the analytical uses of monies in archaeology. Coins discovered with artefacts are used to establish their approximate age. From an archeological point of view, money, and the capacity to produce coins, is a measure of political power and influence (Bruce-Mitford, 1974:253). These links between monies, power and material goods are highlighted in SL residents' accounts of money practices, political and existential legitimacy.

Problems with power and over-emphasis on state monies feature in the work of Ingham (1996, 1998, 2004), Zelizer (1997, 1998a, 1998b, 2000) and Hart (2000), whose positions offer intriguing points of departure for analysing lay theories of monies. Ingham's (1996, 1998, 2004) conceptualisation of money is not far removed from that of economics, though he argues (Ingham, 2001:305) that his work should be situated within a "heterodox [economic] tradition" that includes Keynes and Schumpeter. Ingham's work (1996, 1998, 2001, 2004) is concerned with state, institutional and financial actors and what he identifies as social relations of money. However, this emphasis on institutions and structures is not obvious from the definition of money that Ingham (1996:510) first advanced:

I wish to go further [than Marx] and argue that money itself is a social relation. By this I mean that "money" can only be sensibly seen as being constituted by social relations. I have already hinted that this claim is most obviously sustained in the case of credit-money as 'promises' to pay; but I shall argue that all forms of money are social relations and consequently, for example, the conventional textbook distinction between 'money' and 'credit' is not merely anachronistic, but is based on a conceptual confusion.

²⁶ Zelizer (1997, 2005) also investigates moral and political aspects of money but her emphasis is micro-social, focusing on interpersonal relations and intimate relations, which does not resonate with respondents' theories.

From the emphasis on social relations above, we might expect that Ingham would continue with an analysis of how money is produced and reproduced by actors and within social systems, like Zelizer (1997; 1998a; 1998b; 2000; 2005). Instead he (1996; 2004:179-182) emphasises currencies and the institutions – financial, legal and governmental – that support them. For Ingham, social relations of money are limited to “the social and political relations between issuers [of money] and users” (Ingham, 2004:181), or the state and those who use the currency it produces. Economic activities that do not involve states, financial institutions and actors of sufficient size to be of interest to nation-states are peripheral. There is an implicit model of social class and privilege in this perspective. Actors who matter for Ingham are those described in ages past as “persons of quality”. Ingham's (2004) references to various countries and historical periods notwithstanding, his conceptualisation of money, which emphasises nation-states and their principle debtors, is firmly rooted in the City of London in the 18th and 19th centuries, a cosy world of powerful financiers, the Crown, the Treasury and Parliament who accept only one currency: pounds sterling. These institutions and actors still exist, but as recent financial crises have shown, their influence on the pound, and monies in general, is not so direct as in the past.

Considering this strong emphasis on the state, economic institutions and social structures, and Ingham's (1996:510) hope of improving upon Marx, it is baffling that inequalities produced by money – concrete empirical phenomena linked to social structures of economies and distributions of wealth – receive rather short shrift in his book, The Nature of Money.

The analytical reduction of money to a natural commodity, to the mere symbol of a commodity, or to nothing more than the neutral representation of existing values, is a powerful ideological tool. However, money is not merely a useful technique, comparable to weights and measures; it also consists in social relations that are inherently relations of inequality and power. *We shall see that in*

the actual process of the social production of money, promises to pay are ranked hierarchically in a way that reproduces these inequalities. (Ingham, 2004:36-37)

There is a question haunting this passage: which inequalities? Subsequent chapters contain historical analyses of ancient Roman monetary problems (2004:104-106); Japan's inflationary crisis (2004:160-164); Argentina's economic collapse (2004:165-171); and loss of "monetary sovereignty" with Bretton-Woods (2004:191-195), but systematic inequalities in contemporary Western capitalist societies generated by money, Simmel's ([1907]1978:217) "unearned increment of wealth", are reduced to a "social network of credit and debt" (Ingham, 2004:195).

In Ingham's ranking of "promises to pay", analytical significance extends only as far as promises to pay the state or large financial institutions. Loan sharks, financial derivatives and mobile phone plans are entirely peripheral, as are inequalities generated by the very structures of economic institutions: enormous gaps between interest rates on mortgages and loans to large corporations; predatory lending practices; production of money through fractional reserve banking; and bonus cultures in investment banks. For Ingham these are marginal aspects of economic life because they involve relationships between users of money, not between currency issuers (nation-states) and influential users. Though Ingham (2004:78) writes "money is produced in a struggle for power" the dimensions of that struggle remain limited to the state and powerful users of currencies. For Ingham, money is an object, not a subject, a position at odds with respondents' practice-based theories in which money becomes an actor.

If contemporary Western societies were so configured that the principle struggles for power, dignity and legitimacy occurred between the state and its citizens, and if only one currency were in

use in a given economic system, then Ingham's approach would be instructive. However, contemporary Western societies live cheek-by-jowl with consumer capitalist economies. Social relations involving money and power are not limited to those between issuers and users of currencies. Moreover, consumers are not living with only one currency – pounds sterling, Euros or American dollars – but are constantly manipulating, converting and thinking in terms of a variety of monies and money-like objects (Guyer, 1995, 2004; Dominguez, 1990:16,33; Dodd, 2001:17, 2005a:566). Respondents' lay theories begin from a position of monetary plurality, and the importance of personal politics. From Ingham's perspective, money is bound up with governance and institutions, rather than small “p” politics. Yet such politics can be crucial to the role of money within a community, as with the Linden dollar. Dodd (1994:154) argues that money's political and symbolic dimensions, which are “generically linked to the idea of unfettered empowerment” are defining qualities. These personal politics and symbolic meanings are central to parallel monies (North, 1999), which are not monies in Ingham's (2004:181) view because they lack support and backing from a state. Power relations supported or legitimised by money that occur between users of currencies and monetary diversity, which Ingham shunts to the periphery, are foregrounded by Zelizer and Hart.

Zelizer (1997, 1998a, 1998b, 2000, 2005) investigates phenomenological meanings of money, particularly earmarking (1997) and transformations of money into representations of social relations (1998a, 1998b). This emphasis on monetary meanings and multiplicity reflects practices and respondents' lay theorising in both field sites, but with a distinctly political edge in Second Life, where money, definitions of the “right way to do Second Life” and existential legitimacy were inextricably bound together to such an extent that they cease, at times, to be theories of money at

all. In examining transfigurations of money into social relations, Zelizer (2000:385) has written that money is not homogeneous or undifferentiated, a line of argument she bases on a questionable reading of Simmel's The Philosophy of Money. Zelizer (1994:1, 7-11, 200-205) argues that Simmel theorises money as featureless, static and without qualities because she has confused his distinction between the idea of money and media that are practical for use as money (Dodd, 2007:275, Dodd, forthcoming). Though Simmel ([1907]1978:165) did write that “pure token money” might be inevitable, this ideal type does not represent monies of his day nor would it be effective:

Money performs its services best when it is not simply money, that is when it does not merely represent the value of things in pure abstraction. . .it is the first and only quality of money to be valuable. It is not technically feasible to accomplish what is conceptually correct, namely to transform the money function into a pure token money, and to detach it completely from every substantial value that limits the quantity of money, even though the actual development of money suggests that this will be the final outcome. (Simmel, [1907]1978:165)

A conceptually correct money is a token money, homogeneous and undifferentiated, “detach[ed]” from “substantial value[s]”. This conceptually correct money, a thing that accurately reflects in its composition and qualities the definition of money – a substance valuable only insofar as it is classified as money – cannot be a medium that serves well the functions of money. Simmel's token money is an idealised pure money, not a theoretical representation of monies in his era. It is a utopian money that he imagined could never exist (Dodd, forthcoming), a conceptually correct ideal that was “not technically feasible”.

The economies of contemporary Western societies are suffused with a panoply of Simmelian token monies and money-like objects. Many of these token monies are represented by only a number that requires conversion into some other system of account – another denomination – to become valuable. These other monies, from Tesco points to mobile phone credit, answer to

Simmel's ([1907]1978:165) description of a “pure token money”. These specific, contingent tokens can be understood as credit, particularly reward schemes like Nectar, where consumers receive points for paying bills and buying services or goods that are converted into sums in pounds sterling and used as gift certificates, rebate coupons, cash-back offers and so on. Despite misinterpreting Simmel, Zelizer (1997:1,7,82) is right, monies are not homogeneous or undifferentiated, but not only because of earmarking. Monies are not only differentiated and individualised by earmarking in households (Zelizer, 1997:25-30), and also by extension in any organisation or institution that sets out a budget, from governments to corporations (Zelizer, 1997:124,196). Monies are both heterogeneous and differentiated through their production and individual consumption choices. Banks generate currency through fractional reserve banking, but individuals in contemporary Western capitalist consumer societies produce token monies through rewards plans, loyalty cards, mobile phone credits and even local exchange and trading schemes.

Players of FFXI are particularly adept at thinking economically with multiple monies, as Vana'diel features an array of token monies, money-like objects, commodity monies and more than one fictive state-issued currency. Respondents argued that FFXI resembles their experiences of money in everyday economic life. Monetary plurality generates a variety of money practices – for example, conversions between numeraires – that are rendered invisible if we attend only to state-issued currencies. If “conversions are the compasses and landmarks” (Guyer, 2004:30) in the study of money and economic life, then the compass points to what is nearly *terra incognita*.

Sociological (Ingham, 1996, 1998, 2001, 2004; Smelser, 1963; Zelizer, 1997, 1998a, 1998b, 2000, 2005) and economic (Menger, [1871]1976; Taylor, 1980; Mankiw, 2007) approaches subscribe to a fiction that mental economic landscapes are dominated by one currency – an absurd idea in an

era characterised by rapid and voluminous transnational flows of capital, commodities, monies and people.

Proliferation of monies and money-like objects has not gone unnoticed by anthropologists (Graeber, 2001; Hart, 2000; Guyer, 2004; Falola, 1995; Dominguez, 1990). There is a growing scholarship of Local Exchange and Trading Systems (LETs) and complementary monies (Seyfang, 2001a, 2001b, 2003; Seyfang and Pearson, 2000; Evans, 2009; North, 1999, 2005; Lee, 1996; Williams et al., 2001), which argues that monetary diversity presents opportunities for economic change and social justice at both the fringes of contemporary capitalism – post-socialist states in transition (Verdery and Humphrey, 2004; Humphrey, 2002) or developing countries (Guyer, 2004, 1995) – and the core, in western consumer societies (Hart, 2001; Ryan-Collins, 2009, 2010). From this point of view, relations of power and inequality, politics and legitimacy, are essential questions rather than being relegated to the sidelines. These issues also loom large in respondents' lay theories. For residents, whether the Linden dollar is “real” is not about money, but about appropriate subjectivities and the “right” way of doing Second Life. For Hart (2000: 233), monetary plurality is an unexpected benefit of digitisation in banking and finance, which he takes as a hopeful indicator that contemporary capitalist societies are entering a new age of monetary personalisation (Hart, 2000:4-5, 8). Hart (2000:4-5) argues that this re-personalisation will permit money to function as a means of collective memory, a pecuniary tie that binds for communities, families and societies. He envisions a return of highly personal credit, where information about transactions and transactors embedded through money in digital transaction records is accessible to all, a Facebook approach to economic life, in which the personal is increasingly mediated by impersonal technologies. Yet participants' accounts of exchange have shown that human memory

can easily become overburdened by proliferating social ties, and that practices which multiply social ties and connections can be self-defeating.

The digital monies Hart envisions are situated in contingent and unequal power relations. Unlike currencies, which are tied to geographic areas and which ordinary people do not choose – you use what is accepted wherever you are, with exceptions along borders, conflict zones or sites of severe economic instability – token monies are opt-in programmes. Their unequal power relations are camouflaged. By and large, we choose to be relatively disempowered subjects generating information for more powerful actors for the comparatively steep price of a discounted crate of wine or air fare. Respondents' accounts suggest that the special capacities of token monies – to make markets, ring-fence domains of consumption, facilitate social inclusion and hold some commodities back from market circulation – may account for a willingness to participate in and engage with forms of money whose very existence is predicated on unequal power relations.

Players of FFXI, who use token monies in a virtual world that is rigidly organised and maintained by Square-Enix, are also enmeshed in unequal power relations. For players, the monies of Vana'diel are both constraining and enabling actors, making markets, facilitating social inclusion and creating systems of exchange and consumption. Zelizer (2004:129), writing about LETs, argues that these systems create their own “circuits of commerce” (Zelizer, 2004:122). Her concept is not substantively different from Bohannon and Bohannon's (1968:228) “spheres of exchange” amongst the Tiv and neighbouring peoples.²⁷ As Guyer (2004:27-29) points out, spheres of exchange described by Bohannon and Bohannon (1968:12) were not closed systems

²⁷ Zelizer (2004:125) emphasises phenomenological meaning, whereas Bohannon and Bohannon (1968:12,246) focus on trading partnerships, regional economies and circulations goods.

but networks of unequal or uneven exchange. “Hausa pay for cloth [from Tiv merchants] in brass rods” (Guyer, 2004:29) because rods are not a form of money for Hausa traders. Tiv merchants, on the other hand, accept brass rods because they can be used to buy firearms from southern peoples who refuse other forms of payment (Guyer, 2004:28-29). Most of the token monies in FFXI are part of closed exchange systems, and because of the ways players use these monies, they interpret these domains as ring-fenced systems of consumption rather than exchange. But Guyer's critique and players' accounts draw attention to monies that are accepted not because transactors particularly value them as money, but because someone else does – this is a recurring theme in players' critiques of Real Money Trading.

For respondents in both sites, theories of money are also theories about appropriate ways of being in a virtual world. In FFXI monies are ambivalent socio-technical actors. Some monies change value-neutral consumption choices into correct or incorrect practices involving proper or tainted monies. Other monies restructure FFXI's economies by creating ring-fenced spheres of exchange and consumption. Token monies in FFXI are perceived as providing alternative forms of wealth and routes to achievement. In SL, the Linden dollar is a proxy battleground where residents argue about the boundaries of social life, differentiating between those who “do” SL “properly” and those whose performances are unacceptable.

Money, Politics and Living “Correctly” in Second Life

For residents, the Linden dollar's (L\$) “realness” or lack thereof, is controversial. The Linden is a proprietary money in an open-source, user created world, circulating amongst residents with a range of money practices and theories. To understand why residents hold a given position on the

Linden dollar, and how they come to these views, we must examine how their money is acquired, where it goes, what is done with it and what it does, because – as with economic value – a resident's view of the Linden dollar is bound up with his, her or its, roles and interests. In SL money is a form of material culture through which other aspects of living a second life are debated. This section tracks an imagined circulatory route for Linden dollars that reflects interviewees' accounts of money practices, beginning with an initial purchase of a newly issued L\$ from Linden Lab. Our imaginary Linden dollar moves through SL's virtual society, providing glimpses into residents' money theorising. Given the diversity of residents' virtual lives, multiplicity of monetary theories is not surprising. However, the violence of disagreements on this topic is shocking, until we realise these confrontations are debates about the future and present politics of SL as a virtual world. Linden dollar discussions are battle grounds for conflicting ways of living a Second Life in which money is a complex proxy, an object whose facets reflect varying views in the available light, standing in simultaneously for competing visions. Since views of the L\$ are entangled with defences of particular virtual lifestyles and related money practices, these debates are not framed in terms of what money-qualities make the Linden dollar function well, or that distinguish it as money. Instead, the dominant theme is whether the Linden dollar is “real” or not, though some residents are also keen to speculate on its origins.

Our story begins, as all good ones do, with a tale about origins and creators that coincidentally illustrates two extremes along a spectrum of views. Technically, all Linden dollars in SL originate with Linden Lab because only the company can issue new money. Thus this narrative features Linden Lab along with the United States Department of the Treasury, and a cameo appearance by the notorious gentlemen in Brussels. In Linden Lab's official view, Linden dollars are a product,

they are neither “real” nor not money. The L\$ is a mere commodity facilitating exchange, it is not a medium of exchange – a fine distinction. Gene Yoon (Ginsu Linden), former Vice President for Corporate Development at Linden Lab, explains:

. . . viewing what's going on in the virtual economy primarily through the lens of economics is a little bit of taking the metaphor too far. What we've got here in any particular element, say the Linden dollar, is a product. It's an element of what our offering is. And when we thought about how to put together the offering for the Linden dollar, it was more in the sense of a product team. . . [we were] trying to understand a particular product offering and not trying to understand the world of macroeconomics. (Bloomfield, 2007a:4)

The L\$ is only “an element” of another product: Second Life. Similar to a virtual casino chip, Linden dollars are useful for transactions in one setting, but useless elsewhere. In this view, the L\$ and the commercial it enables are secondary activities, subordinate to other, unspecified pursuits. This sub-product cannot be returned or refunded. Linden Lab does not redeem Linden dollars for United States dollars or other currencies. Those who wish to “cash out” must place a sell order on the LindeX and wait for another resident to buy their casino chips. Linden dollars are a special kind of product that resembles money, but must not resemble it too closely.

Yoon's comments were made on Prof. Robert Bloomfield's Metanomics chat show and broadcast live from Muse Isle in SL. The discussion was simultaneously relayed as live video to several other locations in-world and archived online (Bloomfield, 2007a). Yoon's words sparked a firestorm in the Metanomics group discussion channel and in local chat as listeners gasped in angry disbelief that the Linden dollar could be a simple “product”. Attendees' silent lines of text created a virtual din of protest. Bloomfield and Yoon tried to focus on their spoken conversation, but were increasingly distracted by fast-paced arguments amongst audience members scrolling by in chat logs. Debate raged for nearly an hour afterwards and resurfaced in audience and panellists'

discussions during the next week's episode (Bloomfield, 2007b). The "reality", or legal status, of the Linden dollar was a pressing issue for Linden Lab in late 2007, as the National Taxpayer Advocate was then writing a report that would strongly recommend taxing "commodified virtual worlds" (Olson, 2008:213-214) such as SL. Neither the Department of the Treasury nor the United States government acted on this recommendation, no doubt to the relief of Linden Lab. Thus the "unreal", non-taxable status of Linden dollars was maintained through bureaucratic and legislative inaction in the United States. However, not everyone agrees that the L\$ is a virtual casino chip. European Union regulations require Value-Added Tax on any SL transactions that take place between Linden Lab and residents who live, in their First Lives, in the EU. The Linden dollar's status is legally ambiguous: non-taxable in the US, taxable in the EU. This ambiguity is reflected in-world, even though taxable status is a non-issue for most residents.

The stage is set, the prologue ended and our fictive Linden dollar is almost ready to enter SL. However, the means through which our Linden dollar accomplishes this feat – its transition from an idea or potentiality to a full-fledged Linden dollar ready to be spent – is a mystery for some residents. Of those respondents who purchased Linden dollars, all but two bought their virtual money through the "Buy L\$" option in the SL viewer menu. Most knew nothing about the LindeX or third party Linden dollar exchanges. Our imaginary Linden dollar would most likely come into being through a direct purchase within the SL viewer. This transaction might be initiated by someone like Julie Walker, an American white-collar worker in her First Life, who buys about \$15 USD in Lindens dollars monthly. Julie does not build and she did not own land, though she had previously rented a virtual apartment. She was uncertain about where Linden dollars originate:

SR: Where do your Lindens come from?

Julie: um
Julie: i buy them thru the menu
SR: So, clicking on the Buy L\$ option?
Julie: yah
Julie: is there sum other way
Julie: like camping

Ignorance is not an accurate interpretation of Julie's understanding of Linden dollars. She was aware of camping, but did not know other ways to buy virtual money, or that more favourable exchange rates were available on the LindeX. I offered to explain the LindeX, providing a URL, but Julie said, "it[']s to[o] complicated". She compared it to online banking, which she described as "to[o] much work". In Julie's view, Linden dollars are an accounting system: "when it [L\$ balance] gets low, i just buy more". For consumption-oriented residents, Linden dollars are a practical technology that is only perceived when it fails to function – too few Lindens or a technical glitch. Other ways to acquire money may be interesting, but the efficiency of the point-and-click buying option directly embedded in the software – and its resemblance to the way goods are bought in SL – makes other ways of buying Lindens irrelevant. For Julie, living a good Second Life is about building social networks and accumulating an incredible range of clothes, skins and hairstyles she can use to "express what i like" and "look hot". From her perspective, the Linden dollar is not real, "it[']s just for buying SL clothes & stuff" because "freebies r ugly!!!" According to Julie, residents who do not buy Linden dollars are condemned to "wast[ing]" time camping" and consuming less aesthetically pleasing free goods. She went on to argue that residents with basic, uncustomised avatars are "unattractive" and usually "not fun ppl". Thus residents who do not buy Lindens, and do not "look hot", are probably people with whom she would not socialise. From Julie's point of view, making an attractive avatar is the right way to do SL, and residents who do not meet certain standards of virtual personal appearance and consumption are not participating properly.

Tara Humper, a self-employed escort in SL, agrees with Julie and describes Linden dollars as “monopoly money”. She receives Lindens for sex work and supplements this income by purchasing more money for her “extra shopping”. Though for Tara SL is a place for virtual consumption, her situation is similar to that of petty entrepreneurs. She rents a parcel of land and several advertising panels in sex clubs, and does minor adjustments and scripting on objects she uses for work. For Tara, Linden dollars come from clients and Linden Lab:

Tara Humper: I really don't care where they get L\$, as long as I'm PAID.

SR: Where do you think your clients get their Linden dollars?

Tara: From L[inden] L[ab].

Tara: LL prints the monopoly money

SR: monopoly money? Are Linden dollars not real?

Tara: nope

Tara: theyre just numbers

For Tara, Linden dollars are ambivalent. They are play money, “just numbers”, but also money she wants to receive in payment. Though there are escorts who accept payment via PayPal for sexual services outside SL – video chat, instant messaging or phone sex – Tara only works in-world: “[sex] work is pretty much a hobby.” Tara's main interests in SL are her virtual work, making simple objects, and modifying clothes or novelty items. Julie's and Tara's framing of Linden dollars is similar to Gene Yoon's and the official policy of Linden Lab. Linden dollars are a tool, a product, nothing more. This “unreality” of Linden dollars matches Julie's and Tara's framings of SL as a place for unreflexive leisure and consumption. As long as Linden dollars are an object that facilitates consumption and experiences of leisure, it makes no difference for consumption-oriented residents whether this money is real or not.

When Tara or Julie go shopping they visit small and large businesses. Our fictive Linden dollar, purchased by someone like Julie or Tara, could be transferred to shop owners like Vivian Tei or

Matroska Dee. Though Matroska and Vivian are petty entrepreneurs like Tara, they have different views of Linden dollars. Vivian, who recently built a larger shop, explains where her money comes from:

all of my money comes from my item sales. I buy very little and have a high quality standard, so I end up saving up a lot, which is good because it gives me money for more land later on.

Petty entrepreneurs like Vivian do not generate large enough profits to cash out. Instead they accumulate wealth within SL. This economic strategy keeps virtual money and capital, acquired through the exercise of creativity in SL, distinct from capital imported from everyday life. Vivian does not buy Linden dollars and has little esteem for those who leverage assets from their First Life to start an SL business: "it won't buy them skill or creativity!" This distinction reproduces one of the dominant discourses of Second Life: the primacy and value of creative work. For Vivian, some Linden dollars are more real than others. Money earned through creativity is capital that can be treated as if it were real in SL, but Linden dollars bought from Linden Lab are play money. Thus how money is acquired is related to whether it is "real" or not.

In Vivian's view, the Linden dollar is not a product, a thing that is not "real", as is the case for Tara and Julie. Instead, Linden dollars are token money that is not real when it is a proxy for real world capital, but can be treated as if it were real as long as it remains virtual capital, or untainted by connection with everyday economic life. The as-if quality of Linden dollars makes them token money that can be safely accumulated and transformed into virtual capital, but not converted into real world currency.

Well, as long as the worth of lindens doesn't become anything insane, I see no reason why there should be any sort of quarantine [economic separation of SL] or so long as things don't get to the point where those who are much better off in

R[ea]l L[ife] will be much better off here, in a place where you're suppose to be able to do or become anything.

Vivian's way of doing Second Life requires an economic infrastructure facilitated by the Linden dollar. However, some uses of this money undermine things she values most in SL: creativity and the possibility for anyone to “be able to do or become anything”. If Linden dollars remain a token with value too low to cash out and turn into everyday profits, SL can be framed as a ludic space of creativity and potential. When Linden dollars are used in ways that subvert what she values – reproducing real world capital and social inequalities in SL – then the Linden dollar is just as much a problem as those who use it in that way. In framing “good” and “real” Linden dollars as those earned in SL, Vivian is arguing that money practices that support creative activity, and lifestyles that involve making and sharing things are the “right way” to do Second Life.

Billie-Jo Pawnee, a petty entrepreneur who works as an escort in SL and sells some goods in a friend's shop, echoes Vivian.

SR: You mentioned before that you don't buy Lindens. Are lindens received through work, or camping different from lindens someone buys?

Billie-Jo: yeah. i think they are. if you get them inworld it doesn't matter on what you spend it, but if you buy them, you're putting RL money in a virtual world, just pictures. It doesn't mean anything.

Billie-Jo's condemnation of other residents' way of doing SL, describing those who buy Lindens as “putting RL money” into “just pictures” – reminiscent of Mangas' and Ally's comments from chapter four – is more explicit than Vivian's. Though Billie-Jo enjoys shopping and consuming goods other residents have made, she thinks Linden dollars are fake money, something not worth investment of real world capital. As for residents who spend their US dollars, Euros or yen on Lindens, Ally says, “they need their heads examined”. For Billie-Jo, Ally and Vivian, virtual capital is for virtual

accumulation, and can be safely frittered away on novelties or virtual land. Billie-Jo says, “since i don't buy them [Linden dollars] with my rl money, i don't care.” But when Linden dollars become attached to real world capital, they become dangerous or suggest warped values.

Some small business owners take a different view, notably those with more precarious or irregular in-world revenue streams who occasionally import small amounts of real world capital, like Matroska Dee. She owns a boutique in SL and lives in a suburb of an undisclosed Russian city. Without a credit card or PayPal account, it is difficult for Matroska to buy Lindens. She relies on third party L\$ exchanges. Matroska cited exchanging Linden dollars as a significant business hurdle:

sometimes i have enough [Lindens] to pay [rent]. but when i dont its hard to get more. gotta be real careful w/money – if i run out [it] takes time to get more

Third party L\$ sellers have less favourable exchange rates and longer purchasing times. Running out of Linden dollars shortly before rent day could be a catastrophe for Matroska. Though she was ambivalent about the “realness” of Lindens – “may be real [money] may be not” – Matroska was clear about monetary stability and fungibility.

Matroska Dee: L\$ is up and down too much. sometime I pay more. sometime less.

SR: So L\$ should have a more stable exchange rate?

Matroska Dee: ya. better rate is needed

Matroska Dee: also its too hard to buy L\$. 3 days for payment. more time for delivery.

SR: With these things in mind, would you say the L\$ is real money?

Matroska Dee: L\$ may be real may be not. for me, not so much. real money is more flexible!!!

For residents in countries who can easily buy L\$, it may seem “like real money”. For Matroska, living in Russia is a disadvantage because her geographic location makes buying Linden dollars

difficult. Respondents like Matroska, petty entrepreneurs with irregular access to L\$, argued that this money could have the potential to be “real”, but only for people with access to financial tools like internationally accepted credit cards or PayPal.

Matroska suggested that improved stability and fungibility might make the L\$ more “flexible”, like everyday monies. In this view, the “realness” of the Linden dollar is tied to ease of conversion. This desired “realness” is not related to the Linden's financial or legal status, but to access and use. A plastic, easily used money is more “real”. This perspective reflects Matroska's frustrations in achieving her ideal way of living in SL. Faced with obstacles to acquiring virtual money that is needed to run enterprises that lie at the heart of their Second Lives, such residents argue for an improved, more accessible, money system, a more fungible Linden dollar. Matroska desires a money that provides convenience and freedom from virtual financial problems because such money would bring her desired way of living in SL – as a successful small business owner – into reach.

Petty entrepreneurs seeking a more fungible Linden dollar find unexpected allies amongst Second Life's libertarian capitalists. Some of these residents are also large business owners, like IntLibber Brautigan of financial company BNT Holdings; Tyrian Camilo, of Mainostaulu Network; or Stroker Serpentine. For those with a larger economic stake, “realness” through fungibility is not associated with wider access to SL's economy. Instead, such residents desire a more market-responsive or market-driven economy without what Prokofy Neva, an outspoken land baron, has described as “inept over-regulation” from Linden Lab. IntLibber agrees: “unless L[inden] L[ab] changes course and gives up on interventionism, SL will devolve into a socialist hellhole”. He stated his position on

the Metanomics show one week after Ginsu Linden's appearance:

I don't see it [Second Life] as a game. I don't see the Linden dollar as a fiction or a license. The Linden dollar is 100 percent as fake as the US dollar is, and no less real. I find these kinds of statements [like Ginsu Linden's] as really disingenuous evasions. . . (Bloomfield, 2007b:26-27)

Never one to shy from a controversial issue, IntLibber went on to say that statements like Ginsu Linden's are “making the company look foolish”. In this view, Linden dollars are no less “real” than everyday monies.

In an interview, IntLibber explained why the L\$ is as real as state-issued currencies:

SR: Linden dollars are one of the few currencies that is not accepted as payment, or "bought back" as it were, by its issuer though.

IntLibber Brautigan: the US dollar isn't [bought back] either. nor is the euro or any other fiat currency. if you take a federal reserve note to a federal reserve bank, and say, I'd like a dollar please, you would not receive a silver dollar. therefore the F[ederal] R[eserve] N[ote] is no different from the L\$. the FRN is not the governments money. the federal reserve is a private bank. which has been granted a congressional monopoly on fiat currency.

SR: No, but you'd receive another dollar or FRN. For example, if I take a ripped five pound note to a bank, it will be replaced with a proper note.

IntLibber Brautigan: would they give you silver or gold?

SR: No.

IntLibber Brautigan: then all they are doing is replacing one IOU with another which is no different than the L\$

For IntLibber, the Linden dollar is no less “real” than everyday currencies because it is not redeemable against a valuable commodity like “silver or gold”. Replacing a torn note with a fresh one merely substitutes one promise to pay for another. From his perspective, Linden dollars and US dollars are no more, or less, than circulating debt. As monies are real because they represent promises to pay, IntLibber takes a dim view of fiat money – state-issued currencies declared to be legal tender, but not convertible into precious metals or other commodities (Dunn, 2010:302). He said, “fiat money is a joke”. For IntLibber, Linden Lab's decision that Linden dollars are a product is

less important than residents' evaluations. He said, "[i]t's the participants in an economy that decide what is and is not money"; money is made through practices and consensus.

IntLibber also suggests that debating the realness of Linden dollars overlooks more important economic issues. From his perspective, such proxy debates about appropriate ways of doing SL are overshadowing discussions that are more relevant to his framing of a "good" second life. One of these matters is a "stigma" against virtual business owners.

the stigma [against SL business] really is because we were founded INSIDE the "game", and because we are not ivy leaguers with lots of corporate contacts and trust fund backers. the fact that a person can make their living inside SL should be seen as a really impressive achievement, especially given the economy of micropayments here.

that's another issue. the L\$, which LL insists is a fiction, a licensed service. they [Linden Lab] damage the credibility of their claims of SL being a "business platform" by claiming the L\$ isn't money.

it's paradoxical. if it's not money then SL can never be a business platform, and real life businesses know that.

Rather than showing apathy toward a community of entrepreneurs in everyday life from which he feels excluded, IntLibber constructs a complex narrative to explain why his virtual business is not recognised as an achievement outside SL. For IntLibber, lack of social status ascribed to virtual entrepreneurs' achievements and Linden Lab's economic policies are related. Talking about the Linden dollar's ambivalent status provides him with a way to talk through concerns about local politics and the social status of entrepreneurs. He identifies the status of the Linden dollar as a "licensed service" and the interests of Linden Lab in keeping the Linden dollar a non-taxable token as key obstacles to the appreciation of SL business owners' accomplishments by peers in everyday life.

For IntLibber, association of virtual businesses with a space of play diminishes the respectability of entrepreneurs in SL and creates an unpalatable environment for external investors. The “unreality” of the Linden dollar is a secondary issue for IntLibber, as it is the outcome of what he judges to be short-sighted self-interest by Linden Lab. The future of SL, from IntLibber's point of view, is as a “business platform”, a vehicle for e-commerce in which he sees himself, and his associates, as key players. However, those ambitions are frustratingly out of reach because of Linden Lab's framing of the Linden dollar and stigmas against virtual entrepreneurs. IntLibber also stresses his lack of cultural capital – “ivy league” universities and “corporate contacts”. This pairing of cultural capital and Linden dollars is no a coincidence, as this conjunction brings the debate about the “realness” of the Linden dollar back to what it means to live a good Second Life. For IntLibber, living a good Second Life means having his business acumen recognised not only by other residents, but by members of an imagined business community in everyday life.

At the heart of this debate over the Linden dollar's “realness” are competing claims to legitimacy, political voice and appropriate uses of Second Life. For IntLibber, the most desirable way to live in SL is rendered unattainable by the world's creators – a dilemma no doubt familiar to followers of many religions. In IntLibber's view, the “realness” of Linden dollars is not too much of an issue – it is real because residents choose to use it. However, Linden dollars still raise questions about the right ways of doing SL, which involve forms of economic activity that, in IntLibber's view, are prevented or rendered needlessly difficult by over-regulation by Linden Lab, who he described as “busybodies”. PD, an aspiring land baron who owned several islands, was sure that “L\$ arent real”. He went on to say, “SECOND LIFE has no future for business”, despite his own entrepreneurial interests. However, PD stated what other business owners were less willing to say

on record:

linden [lab] should tomorrow clean the grid. clean up 50 % of the land and force people to go premium. that will be a natural selection

According to PD, residents who do not buy Linden dollars are the “biggest problem” in SL: “if ya dont want to work for ya money then better stay home in rl or leave sl!” He describes such residents as “lazy”. Those who do not live in a way that requires buying Linden dollars, or earning them through some form of virtual work, are not properly participating in SL by engaging in intense consumption. PD went on to suggest that free accounts should be “destroyed” and “p[eo]pl[e] who do not contribute to the economy” should be either “exterminated” from SL or forced to switch to a fee-paying, premium account. PD's language is aggressive and reminiscent of right-wing extremists in everyday life, with words like “exterminated” or “destroyed” replacing usual computer-related terminology, such as “deleted”, “deactivated” or “removed”. Rather than talking about SL accounts, revenues and circulation of capital, this language emphasises that PD is talking about poorly disciplined subjects requiring punishment. For PD, the L\$ is not real, but using in large sums, with great frequency is the right way to do SL.

Our imaginary Linden dollar has been sitting in the hands of landlords for some time now, but where does it go from here? Landlords enjoy shopping like other SL residents, so our little Linden dollar could easily go back to someone like Matroska or Tara. However, PD's comments bring to mind another possibility: residents who do not buy Linden dollars. These residents constitute a large proportion of SL's userbase. According to PD, and some other business owners, such residents are the scum of the virtual earth. A petty entrepreneur described them as “bottomless holes filled with my freebie goods”, while another called such residents “parasites”. Yet these

residents could previously earn money through camping, a service provided by the landlords and entrepreneurs who despise them. Camping was used to increase traffic – a count of avatar visits – to a parcel of land or a shop, but was banned in April 2009 (Linden Lab, 2009). By offering camping chairs that residents can occupy for long periods of time, landlords received more visitors, enhancing their position in the SL search engine results which were ordered from most to least visitors. For residents outside systems of financial circulation in SL, who also tend to be people whose First Lives place them on the edges of contemporary neo-liberal capitalism, camping was an excellent way to earn Linden dollars.

Zofia Ember lives in the Czech Republic and has neither a credit card nor PayPal account.²⁸

Without access to these means of payment, buying Lindens would be very difficult, so she simply does not do it. Though she sometimes camps for money, and has collected many freebie goods, Zofia's avatar has no shoes.

ppl r always giving me shoes. lol i dont need more stuff. dont need shoes for feet just places to go

Zofia enjoys travelling and exploring as a virtual barefoot wanderer in SL. She needs neither virtual goods nor money. The Linden dollar, and the virtual economy that has grown around it, are somewhat tedious and unimportant distractions from the activities she enjoys: meeting new people and appreciating creatively constructed landscapes and buildings. For Zofia, “L\$ [a]r[e] not reel”.

She was unsure where Linden dollars originate:

Zofia: maybe someone at LL [Linden Lab] just decides they need more [money]

Zofia: so they make more

SR: How do you think they make them?

Zofia: just take ppls money i guess

Zofia: a bit like magik

²⁸ PayPal had not yet expanded to the Czech Republic when Zofia's interview was conducted.

Zofia: take 1 money make it into L\$

Zofia's speculation suggests indifference toward an economic system from which she is excluded by an accident of financial service expansion and economic geography. As she is largely prevented from investing financially in Second Life, and her interests lie entirely elsewhere, Zofia has little incentive to engage with SL's economic systems.

Despite differences in their experiences of SL, a transient resident like Zofia Ember shares an understanding of where Lindens come from with Julie and Tara but not with a petty entrepreneur like Matroska, who has more in common with Zofia in everyday life than Julie or Tara. Though IntLibber, Vivian and Matroska have little in common socially – IntLibber is a financier and land baron; Vivian is a successful shop owner; Matroska struggles to make virtual ends meet – they can agree that the Linden dollar is “real” for some intents and purposes. One of the most fascinating aspects of talking about the L\$ is the irrelevance of SL's usual social fault lines which divide land-owners from renters and tenants from transient residents; or that separate business owners or content creators from consumer-residents who inject real-world capital into SL; and consumers from residents who do not buy Linden dollars.

Debates over whether the Linden dollar is “real” (no matter how this is defined) are means of articulating claims about what living a second life should be about, or appropriate uses of SL. From IntLibber's critiques of Linden Lab's mismanagement to Billie-Jo's and Ally's disdain for virtual money, discussions of Linden dollars lead inevitably to defences of virtual lifestyles. This rhetoric can also be deployed as attacks on groups or residents who are not living in the world in the “right” way – a bourgeois response that may reflect middle class origins or aspirations of many

residents in their First Lives – or against users whose virtual lifestyle is incompatible with the interlocutor's own aims or aspirations. The Linden dollar is more than a token money, it is a highly contested social, political and economic object and actor through which competing ideologies and framings of how Second Life should be used are debated.

Social Inclusion and Monetary Multiplicity in Final Fantasy XI

Players of FFXI love to talk about monies: complaints about being broke and agonised waiting while saving for new armour; frustrations with Real Money Trading and seasonal inflationary cycles; debating relative merits of money practices; or comparing token monies. Like SL residents, for whom the “realness” of the Linden dollar is bound up with claims to legitimacy and the right purposes and aims of living a Second Life, players' money talk entails some discussion of how to participate in Vana'diel. However, instead of differentiating between appropriate people or lifestyles, FFXI players focus on social inclusion and distinguishing between monies and practices. The glaring exception to this is Real Money Trading (RMT), the exchange of virtual money for real world currencies. Controversies and ambiguities over RMT complicate discussion of money in FFXI and animate the three central themes of players' lay theories: money as a way to participate not just in economic life, but also in social, civic and political activity; monetary differentiation according to purposes; and the unreality of gil. In Second Life, following the imagined trajectory of a Linden dollar is a useful way to think about money and money practices because economic life in SL comprises many types of users with different economic and business activities and one virtual money. This analysis also uses a follow-the-money strategy, but in FFXI a circulatory approach, as used in SL, does not reflect how participants understand the moneyscapes of FFXI. Vana'diel's economies have gil sinks and tremendous monetary diversity. Rather than tracing

routes of circulation – which would build up a series of dead-ends rather than circuits and loops – this section pieces together players' observations to build a picture of monetary practices and theorising.

Players emphasised the importance of gil sinks – transactions that remove money from circulation – in their conceptualisations of money. “They're *supposed* to stop inflation, but it don't always work,” said Kagome, of Yukikaze. When players buy goods from one another with gil, money continues to circulate, but when players trade with non-player characters (NPCs) – nonhuman entities represented by avatars with scripted behaviours – or pay service charges and fees to fictive institutions, those funds disappear because the receivers of money in these transactions do not usually buy things from players. Though some NPCs are programmed to buy items from player characters, purchase prices are far lower than those offered by other players in Auction Houses. For example, a lump of beeswax sells in an Auction House or bazaar for 1,000 gil, but an NPC merchant would give 30-40 gil. Few players sell to NPCs except to quickly offload very cheap goods. Transportation, including chocobo rides, runic portal use or airship fees, are substantial sources of gil removal. There are also items, like the Vir subligar described by J in chapter four, that have been introduced to remove money from circulation. Money sinks are important in virtual economies of game-oriented worlds like FFXI where money and material goods are generated at a steady rate as a result of players' skilled performances. As players are constantly engaged in feats of arms, quests and activities that generate regular flows of money and goods, virtual economies are at risk of inflation, or MUDflation – a reference to early Multi-User Dungeons, text-based virtual worlds (Lehdonvirta, 2009:29). This driving need to remove money from circulation is quite opposite to the monetary model of Linden Lab. In SL, injecting more Linden dollars into the virtual

economy translates directly into profits for Linden Lab because residents tend to buy their money directly from the company. This situation generates very different questions about what money is and how it should work.

Game designers introduce ways to remove money from circulation to prevent steadily worsening inflation. However, Square-Enix's game designers have gone one step further, not only introducing time-saving services and desirable items sold by non-player characters that remove gil from circulation, but also incorporating multiple token monies and points systems, many of which function as local currencies, offering new routes for gil circulation; alternative means of accumulating goods; different modes of participation; or sometimes removing gil from the game. As new geographic regions, chronological eras and end-game battlefields were introduced, each one received its own money, creating a number of currencies, tokens, money-like objects and points systems. Interviewees distinguished types of monies by two qualities: whether they were represented by an object and what commodities or services the monies allowed them to access. Mumitroll said, "these monies make different markets". Lame Deer, and Mumitroll's friend Ftpol, agree. With the exception of gil, which is used nearly everywhere, FFXI's monies support their own domains within economic life, from Pankration Jettons and monster cage fights to the amenities – storage, transportation and equipment – provided by Imperial coinage. If FFXI had only one form of money, perhaps the first two themes, social inclusion and the uses of monetary differentiation, might not have emerged as such an important ideas in players' lay theorising. The following is not an exhaustive list of FFXI monies, but covers the principle ones.

General currency: gil

Local monies: Imperial coinage (also: Cruor, Allied Notes)

Commodity monies: Magian coins, Ancient Beastcoins, Dynamis monies (noits,

mumus, and bynes)

Token money objects: Sealed Containers, Beastman and Kindred seals, Therion Ichor

Token money points systems: Imperial Standing, Conquest Points, Assault Points, Cruor, Allied Notes, Pankration Jettons, Chocobucks, Moblin Marbles, Zeni

Money-like objects: bronze, silver, mythril, gold and platinum Beastcoins, Ephramadian gold coin, Counterfeit gil, Mantra Coin, Lucky Coin

Mumitroll described gil as “universal money”, because it is used for transactions between players and most exchanges with non-player characters. Fictively, gil is issued jointly by the allied city-states: San d’Oria, Windhurst, Bastok and Jeuno. In this respect, gil resembles the Euro, one money for multiple states. Gil is not a physical object, it exists only as a number displayed beside a character’s inventory screen, or along the bottom of a window when players are browsing Auction House listings, bazaars or NPC shops.

Gil is not accepted everywhere; Vana’diel has local currencies as well. When players travel to the Empire of Aht Urghan, gil is still used in the Auction House and players’ bazaars, but most local NPC merchants prefer the Empire’s fictive currency, Imperial Coinage. These coins are represented by objects in-world – they count toward players’ storage limits – they can be bought and sold in Auction Houses. Players earn coins by completing quests or trading in Imperial Standing Points. Some of the most useful services in Aht Urghan are only accessible with Imperial coinage. When asked why Imperial coinage was introduced, most interviewees thought it had a fictive role.

R2D2: imp[erial] coins make it [Aht Ughan] feel like a foreign place. Exotic. Like going to Europe!

R2D2, an American end-game player, was struck by the “exotic” qualities of what he called “proper coins”, which made the Empire seem like a fictively distinct and separate geo-political domain. B

agrees, describing these monies as adding a fictive depth to the game world.

I think that the idea was probably just to give that feeling of really being in a foreign country. When you go to a different country in real life, you usually have to have some money converted into that county's currency in order to buy things.

New monies come with new territories in Vana'diel. When players travel backward in time to the era of the Crystal War, or to an alternate dimension called Abysea, they must use local currencies as well. The Allied Note fictively represents a proto-gil, the first money issued by the allied city-states, which would be superseded by gil after the war. Cruor is a fictive metal used as money by resistance movements players assist while in Abysea. Unlike Imperial Coinage, but like gil, these local currencies are not represented by objects, they exist only as numbers. Unlike gil, but like other token money points systems in FFXI, Cruor and Allied Notes cannot be transferred between players. These two monies are both token points systems and local monies.

When asked why new monies are regularly introduced, Esiah suggested that they remove or mitigate some advantages of other forms of virtual wealth.

to give players a chance to start on equal footing. Pretty much everyone was able to start collecting them [Imperial coins] at the same time.

For Esiah, token currencies provide equal access to new commodities and activities, allowing even players with very little wealth to participate fully in new battlefields with friends, and preventing players with large sums of wealth in gil from immediately purchasing desirable goods.

Lair, whose experiences in Vana'diel are quite different from Esiah's, agrees.

. . . because not everyone has gil, you still have to pay for things with these coins but you can get them just from exping with sanction on. just from getting imperial standing points you can trade those for imperial coins, and for some people this is easier than gil, so they did this so people are not spending their main currency to do things in the ToAU²⁹ area.

²⁹ Treasures of Aht Urghan is the name of the expansion which introduced this region.

Lair notes that Imperial coins are purchased with Imperial Standing, points awarded for experience gained in Aht Urghan while under the effect of an enchantment called Sanction. Imperial coins can be bought from NPCs with points that a player collects through everyday activities. This money is used to pay for services, including transportation to and from Aht Urghan and within the region, which is vital for players who want to participate in regional battlefields. If these services required gil then, as Lair explained, players would be frittering away quite a bit of money on transportation. Those who could not afford these expenses would be excluded from new activities.

The same principle applies for token money points systems, which are represented only by a number, like gil. Each type is associated with specific activities and gives access to a distinct hierarchy of commodities and services, creating separate spheres of exchange and consumption. As players accumulate more points, they gain access to a greater range of desirable rewards. Moblin Marbles, for example, are the only way to access activities like Moblin Mazes, player-made mini-dungeons for small parties, which feature novelty prizes like a pirate eyepatch. Players who want to breed and race Chocobos must earn Chocobucks by racing or playing mini-games to buy husbandry materials from the fictive Vana'diel Chocobo Society. Pankration Jettons and Zeni are used in Pankration, a bloodsport in Aht Urghan's Collisseum using captured monsters. Jettons are purchased with Imperial Coinage, and are used to buy Zeni or pay Pankration participation fees. Assault Points are awarded for completing missions in certain geographic areas. Points accumulated in one area cannot be spent on rewards from another. As for Imperial Standing Points (ISP), Conquest Points, Cruor and Allied Notes, players must earn experience in the appropriate region, era or dimension, after receiving the blessing of local authorities. With the

exception of ISP, which is convertible into Imperial Coinage, these points are not fungible.

Ancient or historical monies are collected and used to upgrade Relic and other extremely powerful equipment. Each one – Magian coins, Ancient Beastcoins, Dynamis monies – supports its own system of exchange with unique rewards and requirements. These monies are earned in special battlefields then traded to NPC numismatists who provide set rewards. For example, Ancient Beastcoins are only earned in Limbus areas, not in Dynamis or elsewhere, are accepted by only one NPC, and can be spent on Artefact Armour upgrades, not Magian or Relic weapon improvements. Players may, however, trade these coins amongst themselves in bazaars or in-kind, but they cannot be listed in Auction Houses. Dynamis monies, like Imperial Coinage, are differentiated by denomination and origin. Noits are bronze, silver and gold coins from the former kingdom of San d'Oria, mumus are shell money from Windhurst, and byne bills come from the old Republic of Bastok.

Token money objects function in way similar to these collectible monies. Players collect a set amount of items like Sealed Containers, Therion Ichor or Seals, and trade them to an NPC for a reward. However, token money objects are experienced differently from other points-based monies and understood as money-like things. When presented with a list of monies in FFXI, Riemann asked, “Where's the Therion Ichor?!” as I had forgotten it the first time around. These monies are distinct from token money systems because they require storage space. Rain explains:

I don't mind storing Imp[erial] coins because they get used pretty fast. Weekly M[og] L[ocker] lease, one gold coin! Tele[port] to Jeuno, one silver! Oops! Forgot some stuff in my M[og] L[ocker], back to Whitegate [in Aht Ughan]. Tele[port] to Jeuno, another silver gone! They disappear really fast. And I can buy it with I[mperial] S[tanding] P[oints] whenever. Dynamis money, you store

that crap for months and months, but you can do that on a mule. Or you can sell it! [Kindred or Beastmen] Seals, they take forever to build up. They just sit there, using storage space.

Rain identifies Imperial coinage as something he can access when needed, and that is used up quickly. He doesn't mind storing it because he knows fairly accurately how much he needs. One gold coin per week to rent his Mog Locker (extra storage space), and some silver coins for transportation each time he plays. Dynamis money, though it takes a long time to accumulate, he does not mind so much, as it can be sent to an extra character for storage. But Kindred and Beastman Seals are troublesome, because he accumulates them slowly in experience points parties, but has no way to use them. Rain plays less than his friends, and does not belong to a high-performance linkshell. He accumulates seals to pay for entry to Kindred Seal and Beastman Seal battles, but he has no one to undertake the fights with him. Seals are non-transferrable and cannot be used to purchase anything but battlefield-entry orbs. From Rain's point of view, seals and other token money objects with limited uses are different from Imperial coinage and Dynamis money, which are part of systems of exchange – providing access to more goods and/or services – and can be traded between players.

Finally, there are money-like objects, things that look like money but players do not recognise as money. Beastman coins are made of precious metals – bronze, silver, gold and platinum – and are fictively presented as monies used by Beastmen, antagonistic nation-states in Vana'diel. In sufficient quantity, Beastmen coins can be melted down into ingots by skilled goldsmiths or blacksmiths, but they are not money. “They're crafting items,” argues Cirdan, “because you can't melt down gil or Imp[erial] coins!” The manipulable, transformable status of Beastmen coins makes them non-money, rather than the fact that no one accepts them in payment. Talismanic

monies, like the Mantra Coin and Lucky Coin are imbued with mystical powers and are used as equipment. This use as an equipable item is what makes them not money. Some money-like objects are needed to complete a quest or mission, and are also non-money because of this use. “Counterfeit gil is just a quest item, not real money,” says Shukudai. Players follow Simmel ([1907] 1978:165) in arguing that a conceptually correct money is one that is only valuable in its role as money.

Despite this array of money forms, players presented consistent accounts of what monies do and achieve in FFXI. Players argued that purpose-differentiated monies provide multiple routes to participation in the game's virtual society, facilitating social inclusion. From this perspective, monies do not alienate people from one another, but help those with little wealth participate as actively and with as many opportunities as wealthier players. Though many interviewees agreed that there are fictive reasons for FFXI's plethora of monies, most also argued that this monetary diversity is part of a larger economic plan.

Riemann: it [Imperial Coinage] gives you something to buy other than a turban, and the ability to get out of aht urghan without paying for a tele, while actually saving money, is quite unique, plus then it encourages you to [gain] exp[erience points] in those areas

Riemann emphasises Imperial coinage as part of a larger economic system, one that includes “something to buy” and transportation services as well as encouraging exploration of new horizons. For most respondents, as Esiah and B demonstrated, these monies are attempts to level a playing field that can be very unequal.

Ftpol: it's [Imperial coinage and token monies] an attempt to reward the player, depending on the time he spend on an objectiv[e]. e.g. a better way for measuring [effort]

Ftpol suggests that FFXI's myriad monies allow players to achieve rewards for their labour – whether that means slaying monsters or winning chocobo races – more efficiently and fairly. Completing a task and earning a set amount of points is more predictable and reliable than notorious monsters, where a group may not even secure their claim to the fight after hours of waiting. Or worse, after hours of tedium and an arduous fight, desired items may not be generated.

Providing alternative paths to consumption is not the only way token monies encourage social inclusion. There is a strong sense of civic engagement amongst some players in end game linkshells, particularly with small and mid-sized groups. On Omega server, two players jointly ran a Dynamis linkshell financed from their own pockets. Usually such organisations levy either a fixed participation fee or divide the group entry cost by the number of participants who arrive for each event. Aureus and F-level organised free expeditions, at cost to themselves of one million gil per event, for nearly two years. Their only condition was that they receive any high denomination Dynamis monies. As such drops are rare – it is not unusual to do a three hour Dynamis run and not see more than one – this was not an arduous condition. All other items, including lower denomination Dynamis monies, equipment and weapons, were free for anyone to cast lots upon. Some players interpreted Aureus and F-level's actions as charitable. Though these events were free, some players donated money to F-level or Aurelius. HelloJello, a Galka paladin, explained why he gave money:

I cant pay 20-30k to go on runs with other shells, but really need af2³⁰ so its good that Aureus does these. Its generous, even if he keeps the 100 bills. I want to pay what I can because I hope he keeps doing these.

³⁰ Higher level artefact armour, powerful job specific equipment.

HelloJello is expressing gratitude when he gives 3,000 – 5,000 gil to Aurelius at each event, but he is also trying to show his appreciation for what he understands as a public service. Second tier artefact armour (AF2) for paladins was at that time the best equipment available for the job and was considered essential for end game, but as it is only available in Dynamis, HelloJello would have a very difficult time acquiring it without these free events.

Facilitating participation was identified as a defining quality (or agency) of token monies in FFXI. Though players like HelloJello use gil as a way of expressing gratitude, and Aureus and F-Level used gil to offer a weekly event, the reason for their actions was a need for higher denomination Dynamis monies. These monies were also understood as a way to prevent exclusion as a result of Real Money Trading and monopolisation of in-world resources by Real Money Traders. Workers in RMT sweatshops are able, as a result of lengthy twelve hour shifts, use of scripts to control multiple characters from one computer, and co-ordinated effort with fellow employees, to monopolise virtual resources – monsters, mining points and so on – for weeks on end. This behaviour limits other players' participation in the world by preventing access to commodities and epic battles which form the backbone of most players' enjoyment of the game. Ftpol, who has been playing FFXI since the Japanese release, argued that the proliferation of token monies, most of which can be used to purchase powerful equipment, is an attempt to control RMT.

some how, they [token monies] are an attempt to build separated markets. eg. imperial coins. try to reflect the time invested in gaming. to reward a player with an item. gil is different since you can RMT it.

Token monies create “separate markets” or arenas where RMT activity is constrained because desirable commodities are either non-transferrable or acquired with non-fungible token monies.

These closed domains of exchange and consumption do not resemble players' conceptualisations

of markets, as explored in chapter seven. Lame Deer explains:

All these monies, Dynamis stuff, conquest points, they chop up the economy into different parts. Not quite markets, but parts. You can pick an item you want then earn points for it. It's better than Leaping Lizzie! I'm 0/9 on that thing!

According to Lame Deer, token monies “chop up the economy” giving players selections of items achievable through different activities. Such rewards are reliably achievable, unlike notorious monsters like Leaping Lizzie, which he has killed nine times without receiving the item it drops: Leaping Boots.

Imperial coins, like Dynamis monies and other tokens, are ways of rewarding players – as Ftpol suggests above – of ensuring that skilled performances are meaningfully rewarded. Most items acquired with token monies and points systems are rare and exclusive, thus non-transferrable. Thus these goods are inaccessible to players who engage in Real Money Trading. In a strange way, token monies are used to prevent further commodification of virtual objects that are already commodities. Commodification in a token currency seems one step removed from the marketised implications of commodification in gil. Token currencies ringfence commodities and activities, setting them off from a wider, marketised economy in which gil is, as Mumitroll says, “the real currency”.

If gil is “the real currency” of FFXI, and token monies are used to create barriers to commodification and foster social inclusion, then there remain questions as to why gil is both “real” in-world but also “totally not real”, in the words of GheyPirate, a notorious player on Omega server. I expected that players' explanations for why gil is both a virtual currency and yet not “real” would revolve around Real Money Trading and inventory space, as most token monies in FFXI require

an inventory slot, that is to say they take the form of objects that take up virtual space, whereas gil is represented only by a number. Though for many interviewees virtual materiality was a distinguishing feature, the influence of Real Money Trading debates was only rarely explicit, while plasticity was a key feature. Riemann provided a typical response:

SR: FFXI has quite a few different types of objects that are called money: gil, Imperial coins, Dynamis Money, the Counterfeit Gil item, various Beastcoins. Could you tell me a bit about how these items are different from one another in terms of how they function?

Riemann: gil does tons, airship fees, buying/selling, most items can be NPC'd³¹ for it, imperial coins all do something in trade, Dynamis money is to upgrade relic weapons and is the largest time sink of all time, and some beastcoins too, and beastcoins make easy money in smithing synths.

SR: So the difference is in how they are used?

Riemann: yes, but they can all be sold or exchanged for varying amounts of the base currency, which is gil

For Riemann, differentiating gil from other monies begins by identifying its multitudinous uses – “gil does tons” – unlike the limited scope of token monies and points systems, which are tied to a unique set of commodities and services. However, materiality was also important. Though most token monies and points systems, such as moblin marbles and zenis, are neither convertible into gil nor exist as objects, those monies that are embodied in virtual objects – Dynamis monies, beastcoins and Counterfeit Gil in this case – can be bought and sold.

Gil's lack of materiality was ambivalent, both a marker of its status as a currency – within Vana'diel – *and* a quality that made it “totally not real” but not always different from monies in everyday life. Juppy, an ebullient end-game player, explains:

Juppy: you can't stuff gil in a girl's g string

SR: So gil isn't material. But you could stuff imperial coins in a mithra's bikini top?

Juppy: Yeah but as a mithra player myself I would imagine that might bruise.

Imagine being on stage and having someone begin to chuck gold coins at your

³¹ Sold to a non-player character.

head

Though Juppy's comments are tongue-in-cheek, his notion that materiality matters was echoed by other interviewees like Lithowa.

the US dollar can be much more because of things like interest and loans and the fact that it is real... and i can buy hookers and food and beer and drugs with it, and porn an my own house and a car

For Lithowa, gil cannot be real – though it is useful in FFXI – because it cannot be “more”. There are no loans, no financial derivatives. Gil is also not real because it does not buy the things Lithowa needs or wants. “Drugs” and “hookers” are significant, as GheyPirate and DK, players on Omega server, also noted that gil cannot be real because it cannot be, or is not worth being, used illegally. US dollars or pounds sterling are real because even those who operate outside the law take them as payment, thus gil is not real because those same actors do not accept it.

GheyPirate, after reminding me that gil is “not real” continued, “I can't pay a drug dealer with it”. But it is worth asking what drug dealers, debt-sharks and others who operate outside the law might say about accepting gil as payment, as the entire RMT industry is founded on the fungibility of virtual monies, and Real Money Traders are, as Blue described them, “shady characters”. From Square-Enix's perspective, RMT workers are in violation of both the FFXI End User Licence Agreement and Terms of Service, which technically makes them contract breakers, though not necessarily criminals. Megatron, a social player, was far less generous, calling Real Money Traders in FFXI “gangs of criminals”. One member of Yukikaze linkshell, DK – who was part of a dense network of friends in everyday life that constituted a subgroup of the linkshell – was arrested for possession of narcotics and did several months of jail time. When he came back, I tactlessly asked in linkshell chat, unaware of where DK had been, if he thought dealers would

accept gil for drugs, having recently been talking about the same subject with GheyPirate. DK immediately shot back, “not worth doin time 4 gil”. Perhaps what is at stake is the definition of the category “criminal”, rather than a definition of money.

Distinguishing between gil and everyday monies becomes fuzzy even amongst players who do not use RMT services. Some players broker “deals”.

Lair: sometimes I will even make deals with my friends in real life, like I'll order pizza tonight if you buy me some sole sushi!

Lair wants accuracy enhancement for his character, but sole sushi is sometimes beyond his virtual means. Instead of buying gil, he buys pizza for his friends and they purchase his virtual sushi.

Other players are willing to accept gil as payment of real-world debts. My FFXI character, along with its possessions and money, was lost in a backroom game of pai gau gone wrong amongst casino dealers. At the time, I was not using my account and had allowed a friend with an under-developed character to use it. Unfortunately, he settled his gambling debts with the account, and in eight months it had changed hands again in another afterhours gambling session.

A small number of players argue that gil is not different from everyday monies.

J: gil is like an item that can be sold for real life currency but on basic principle its exactly the same. we live in a society with a virtual currency already, i'm not talking in game but in RL. our money is all virtual. we could talk for hours on it, but our currency is no longer gold backed, it has no value what so ever. we only believe it has value, [the] same as we believe gil has value

For J, and a minority of interviewees, gil is indistinguishable from everyday monies not because of some particular quality of this virtual money itself or money practices associated with it, but because of qualities lost by everyday currencies. Gil's lack of materiality is, for these players, a

resemblance to monies used in everyday life, rather than a point of difference.

Money, Politics and Participation

Respondents suggest that some strands of money research, particularly in economic sociology, may be mired in trivialities. Participants in both sites suggest that currency-based definitions of money are far too narrow. A wider view that embraces monetary multiplicity and money as a socio-technical actor is needed, particularly in economic sociology. For residents of Second Life and players of Final Fantasy XI, monies act or at least shape the contours of an economy in various ways. Some monies produce ring-fenced spheres of exchange and consumption. Other monies provide alternative routes to achievement and wealth, facilitating social participation, while still other monies generate or exacerbate inequalities. The extent to which talking about money is bound up with social participation and the “right” ways of living in a virtual world strongly challenge any framing of money that pretends moral or political neutrality. It is worth noting again that the financial crises of the past few years may have influenced some interviewees' comments, but pre-crisis participant observation and interviews for a previous project with FFXI players contain these same themes. In both sites, money shapes how people participate in economic life, and in SL debates about money are also about the boundaries of the social world, defining who is eligible to participate and who should or could be excluded.

Respondents from both settings discussed multiple monies, switching back and forth easily. In SL, Linden dollars are converted into US dollars, sterling or Euros – sometimes multiple currencies in succession, especially by residents on the fringes of western consumer capitalism like Matroska Dee. Players of FFXI navigate multiple spheres of exchange and monies, and in everyday life

consumers manage, manipulate and negotiate multiple monies, from Nectar Points and mobile phone credits to Euros and pounds sterling. Monetary multiplicity is not only generated through earmarking (Zelizer, 1997) because monies are already multitudinous. In an economy filled with various monies, players of FFXI argued that monies act, shaping the structure of economic life and facilitating social participation or spurring civic action. In FFXI, monies “chop up the economy”, as Lane Deer said, making small spheres of exchange where consumption of one kind enables later consumption of another variety. For example, players engage in particular activities – consuming experiences like chocobo racing or Dynamis – to earn points that can be spent on further consumption of commodities or services. Players’ willingness to run endless chocobo races or die several times, losing large amounts of experience points, for the hope of accumulating some Dynamis monies, suggests a parallel with problematic points systems and loyalty schemes of everyday life.

Consumers in contemporary Western capitalist economies give away personal details and privacy in exchange for the further consumption opportunities. Consuming energy to heat homes and water with EDF, considered a requirement for daily existence, provides access to a ring-fenced set of commodities for further consumption when funds used on energy bills turn into Nectar points. Converting one kind of consumption into points that can be spent on another kind of consumption – whether that takes the form of a donation to charity or a discounted Eurostar ticket – gives the illusion of receiving something for free, or as a personal reward for having responsibly paid our bills. Points systems and token monies in FFXI and everyday life create ring-fenced domains of safe consumption whose commodities constitute guilt-free indulgences because they have been paid for already. Rather than Marx's M-M1, or M-C-M¹ we have Consumption-Consumption¹. In

FFXI, the existence of multiple, often independent, spheres of exchange and consumption reduces the importance of wealth in gil for a character's success. As there are so many areas where gil is useless, the importance of an "unearned increment of wealth" (Simmel, [1907]1978:217) declines. This may be an important lesson to carry into studies of monies in everyday life.

Residents of SL also see money as an actor that shapes social worlds, but through exclusion rather than inclusion. Residents were more likely to suggest ways that money precludes some residents from participation or how some framings or uses of money are attached to inappropriate subjectivities. To advocate a particular view of the Linden dollar is to defend one's own way of doing Second Life – and the money practices it involves – as a (if not the) right way of living a good virtual life. Money serves as a lightning rod for appeals for existential legitimacy, or a right to exist in a particular way in SL. With respect to theories of money, the usual social fault lines of Second Life do not apply. Residents are also not grouped together according to their interests. Petty entrepreneurs disagree with one another, as do consumption-oriented residents. The thread that links similar views on the Linden dollar is residents' experiences of money use. Those residents with easy access to Lindens and sufficient real-world affluence to indulge in a spot of digital consumption see it as an accounting system whose reality is a non-issue. Residents like Matroska, whose access to Lindens is precarious, concede that it might be real for other people, those who do not face as many financial obstacles to acquisition.

If we understand competing views of the Linden dollar in terms of conflicting visions of what Second Life should be about, then talking about what is "real" and not "real" is semantically loaded. A resident who argues that the Linden dollar is not "real" can easily dismiss those who

disagree as deluded, the kind of people who believe in fairy stories. Edgar Allen, who spends most of his time in SL socialising, creating humorous avatars and impersonating a soap bubble, was clear on this issue:

L\$s arent money just numbers. its stupid to think theyre real. j[u]st dumb. theyre worthless.

From Edgar's perspective, believing in the "realness" of Linden dollars shows a certain lack of intelligence, devaluing the virtual person as well as their point of view. In response, those who think the Linden dollar is a "real" money, like IntLibber Brautigan, criticise the "lack of vision" of those who disagree with their point of view. According to each side, opposing views arise from personal qualities. At issue are people and their ways of living in SL, not monies.

Money is not a politically neutral object in either field site. Residents in Second Life framed the Linden dollar as a political project, while FFXI players constructed monies as ways of encouraging participation or avoiding commodification. Linden dollars are only "real" insofar as they help a resident achieve his or her SL goals. When the goals a resident wishes to achieve are facilitated by the current model, then the Linden dollar can either be explained as "not real" - meaning the issue of its reality is irrelevant or invisible, because it is currently facilitating whatever the person's goal might be. When a resident's aims are not well served by the existing economic system – as is the case with ambitious business owners – then the issue of "realness" comes to the fore. In FFXI, arguing that gil is "not real" is a necessary de-commodifying tactic, which resembles dichotomisation of price and value in pricing of fine art (Velthuis, 2003:183). If gil is not real, it cannot be a commodity that can be offered for sale. This helps players articulate their views on Real Money Trading by reconfiguring it as selling something that does not exist. Real Money

Traders and those who buy gil and virtual items from them, become not only quasi-criminals, but also dupes. If gil is conceived as an object that should not become a commodity, then Real Money Trading becomes a practice that subverts such players' conceptualisations of money. Thus when players argue that gil is "not real" and condemn Real Money Traders or Real Money Trading, they are expressing judgements about right and wrong ways of living and valuing things in the world.

Lay theories of money explored in this chapter link economic concepts with contested political aims and personal experiences. Connections between economic practices and appropriate ways of being in the world are echoed in FFXI and SL users' accounts of moral market practices.

Monies are framed as actors, things that shape economies and the bounds of social worlds, and objects that can stand as proxies for debates about other issues. Markets are similarly ambivalent, explained as mysterious living things that exercise confused agency, but also as ad-hoc models or configurations assembled for valuating purposes or as rhetorical devices.

Chapter VII: Markets

Unlike lay theories of value, which have parallels in classical sociology and anthropological research, or exchange, which offer a mixture of old and new ideas, respondents' theories of markets, like those of money, offer departures from academic thinking. Though “the market” is the “hollow core at the heart of economics” (Lie, 1997) and economic sociology (Parsons and Smelser, [1956]1984; Carrier, 1997; Dilley, 1992; Callon, 1998; Aspers, 2007, 2008; Dobbin, 2004; White, 1988) – particularly studies of financial markets or economic elites (Abolafia, 1998; Knorr-Cetina 2005; Knorr Cetina and Bruegger, 2002; MacKenzie et al., 2007) – interviewees' explanations of economic life are not market-centric. Many residents argued that markets are irrelevant to their understanding of SL's economy because there is no centralisation on the grid and supplies of goods are boundless, though some said real estate is an exception. Despite ubiquitous consumption of goods and services in SL, and a panopoly of stores and shopping malls, residents did not frame shopping as a market-related activity, presenting a conceptualisation of markets tied to formal economic institutions. Though FFXI players clearly articulated the limits of normative behaviour in Auction Houses, this did not constitute a theory of markets per se. Players of FFXI developed complex accounts of how markets operate which they explain through practices. Implicit in these narratives are models of markets, economic actors and activities. One of the principle struggles in writing this chapter was making explicit such implicit, foundational understandings.

Lay theories of markets are not about “the market” as an abstract black box, but rather descriptions of what a market is – an instructive departure from academic literatures – and how they work, or do not work. Rather than conceiving of markets as processes for determining price, or at the other

extreme, networks of social relations, FFXI respondents provided practice-based conceptualisations. Their discussions feature precise boundary definitions, highlighting which commodities are part of a given market and which ones are not. They also emphasised markets as spaces and institutions constituted by practice that will continue to operate smoothly if participants behave responsibly. Residents of SL defined markets as regulated, centralised institutions, defined by their absence on the grid. Though their experiences provided alternative framings of markets and examples of economic life without markets, residents had very fixed thinking about what markets are and their role in economies.

Despite tremendous differences between field sites, two common themes were the fragile, broken or imperiled nature of markets and individual economic agency. These interviews took place from 2006 to 2008, with some data from FFXI as old as 2003, so recent financial turbulence is not the driving inspiration for these themes. Innovative and subversive uses of market mechanisms observed during participant observation in FFXI show clear gaps between economic design and actual practice, which brings into question the extent to which markets and mechanisms economists and game designers make or intend are reflected in the practices of economic actors. Players also described markets as anthropomorphised entities, or at least actors with limited agency. Given the growing role of algorithmic trading, which in 2009 accounted for 73% of trading volume in the United States (Sussman, Tabb and Iati, 2009), this approach has parallels in high finance and resembles Knorr Cetina and Bruegger's (2002) analysis of markets as life-forms. Respondents described markets as imagined spaces for economic actions and moral performances, or places where amoral or destructive behaviour is likely to occur. Finally, players stressed the arbitrariness of defining a market, emphasising fluidity geographical and imagined

boundaries.

For residents of Second Life, markets were not a central category for theorising economic life, except with respect to land. Respondents did not identify shopping, malls or consumption of virtual goods and commodities on the grid as market-related activities. In this view, there are no markets in SL, only endless acquisition and circulation of commodities between individuals. Shops are vending machines and each commodity or transaction stands alone. Residents argued that shopping is a leisure activity, not “serious” economic behaviour. Tara Humper observed: “most stuffs r[eal]ly cheap. . . its [shopping] j[ust] for fun”. A tiny minority of residents said real estate was an exception to the irrelevance of markets, identifying centralisation and organisation as crucial differences between virtual land and other commodities. Land sales are set aside in their own section of the SL viewer and neatly collated on the SL website, as well as on third party websites. Through such sales mechanisms, real estate markets produce and reproduce certain forms of order (Slater and Tonkiss, 2001). For an even smaller number of users, real estate represents a domain of political struggle between Linden Lab and business communities on the grid.

Finally, a note on terminology. There is a reifying power in the definite article that can change a word from something generic into an entity of rhetorical significance and distinction, an unproblematic phenomenon accepted without much questioning. Phrases such as “the market”, “the free market” or “forces of the market” tend to take on a life of their own and carry a heavy burden of additional meaning (Carrier, 1997:2-3; Dilley, 1992:3). “The market” is a phrase that homogenises and abstracts, assuming conformity to an economic model, whereas “a market” is one amongst many, implying diversity and difference. As Nigel Thrift (2005:28) wrote:

There is no one capitalism or market but only a series of different capitalisms and markets which do not converge on a mean: thus capitalism and the market are seen as powerful.

Though many markets and capitalisms exist, they are only powerful when reified and “seen as powerful”. Rather than looking for “the market”, lay theorists begin with market plurality, diversity and flux, arguing for shifting boundaries and meanings. Using a phrase such as “the market” does little to capture multiple markets negotiated, constructed and maintained by economic actors in contemporary consumer societies and conceptualised by respondents' lay theories. The definite article denies respondents' accounts of market diversity and ethnographic observations.

A Necessarily Limited Review of Markets in Economic Sociology

From vast literatures in economics and economic sociology and anthropology on markets, only a few themes are relevant to participants' accounts. Knorr-Cetina (2005:48) describes foreign exchange markets as a data-rich landscape of constantly updating information on computer screens that “reflect, project and extend the reality of these markets” (Knorr Cetina, 2005:47) which she describes as a “global lifeform of financial markets” (Knorr Cetina and Bruegger, 2002c:389). This perspective, in which markets are both spaces and living things, echoes accounts of FFXI players who “camp” the Auction House – refreshing their browser at the FFXIAH website, or repeatedly checking an in-world Auction House. Slater and Tonkiss (2001:36-39) suggest considering “markets and market relations as frameworks for understanding social order”, but in both sites, markets are problematically disordered spaces. For FFXI players, markets are not spaces where order is made but rather where disorderly behaviour and destructive practices must be regulated. For residents, disorder and decentralisation are so severe on the grid that it is no longer meaningful to think about markets in SL. Finally, interpreting the consequences of

respondents' market practices requires a thoughtful engagement with Callon (1998:2) suggestion that economics "performs, shapes and formats the economy". In FFXI, respondents put themselves at the heart of economic life, citing designers' decisions as counterproductive and sometimes even destructive.

Knorr Cetina (2005:47-48, 52) describes foreign exchange markets as global flows of information projected onto traders' computer screens, characterised by streams of changing data. For traders, this dynamic world composed of others' transactions, exchange rates and account information becomes a Schutzian lifeworld.

The very notions of a lifeworld and of a world on the screen as used in this chapter suggest spatiality; they suggest that the idea of a spatial environment can be extended to electronic domains as these become for some of us a place to work and live. (Knorr Cetina, 2005:52)

Knorr Cetina is ten years late to the party, as Turkle (1995) made similar arguments about online worlds in Life on the Screen. Market spaces inhabited by the foreign exchange traders Knorr Cetina (2005) describes resemble early text-based games, streams of words and numbers charging down and across the screen, inviting players and traders alike to imagine themselves inside virtual worlds assembled from materials projected onto their monitors (Knorr Cetina, 2005:52-53). For players of FFXI, life-like and world-like qualities are important aspects of markets, though respondents emphasised *life* rather than *world* perhaps because world-like aspects are more visually obvious.

Understanding markets as spaces or as life forms requires complex sociotechnical configurations. For foreign currency exchanges, such assemblages include software that collects, presents and

processes changing information; actors to manipulate the software and transact business with one another through it; and global networking and energy infrastructures. Knorr Cetina and Bruegger (2002c:395) describe the transition from pre-digital trading to networked markets with the introduction of the first foreign exchange software, Monitor.


. . . Monitor radically changed one aspect of dealing: it answered the question of *where the market was*, i.e. what the prices of currencies were and who might be ready to deal. . . After the introduction of computerized screen quotes, 'the market' no longer resided in a network of many places, but only in one, the screen, which could be represented identically in all places. It acquired a presence and profile of its own. . .

The advent of Monitor is to financial markets as FFXIAH is to the economy of Vana'diel. Both applications present prices, buyers and sellers in real-time, presenting geographically dispersed transactions, actors and information in a single interface (Knorr Cetina and Bruegger, 2002c:395-396). Though information flows are slower and less detailed in FFXIAH than in high-paced foreign exchange markets, both sociotechnical assemblages generate similar results: centralised information that generates a place identifiable as a particular market, actors who perceive such markets as spaces that can be entered, and where markets become “a complex 'Other'” (Knorr Cetina, 2005:48) that exercises its own agency.

Imagining markets as lifeforms should not seem strange. Market anthropomorphisation, or at least animism, is quite a normal practice in Anglo-Saxon contemporary consumer capitalist societies. Experience-based and accredited economic experts interpret many cryptic messages from financial markets. Some signals are explained in emotional language: depression (Warner, 2010); being caught by surprise (Fujikawa and Tachikawa, 2010); nervousness or feeling shaky; and soaring with “irrational exuberance” (Akerlof and Shiller, 2010:66). Markets are animated: climbing

FFXI Auction House

FFXI Database and Community



IMPERIAL WOOTZ INGOT [stack](#)

An ingot of the alloy wootz, refined in the traditional Al Zahbi method.

Root » [Materials](#) » [Smithing](#)

Info [\[FFXIclopedia\]](#) [\[JP\]](#)

Stock **4**

Stack Price **8,350,000** (695.833 per)

Rate **Very Fast** (12.639 sold/day)

Median **350,000**

Calculations		Price History	
Max	0	7 Hours Ago	360,000
Min	329,000	7 Hours Ago	360,000
Average	338,200	7 Hours Ago	360,000
Last	360,000	7 Hours Ago	350,000

Price History (25) [icon]

Date	Seller	Buyer	Price
Oct. 29, 2010	Xcao	Tetsugaruka	360,000
Oct. 29, 2010	Planeko	Tetsugaruka	360,000
Oct. 29, 2010	Xcao	Tetsugaruka	360,000
Oct. 29, 2010	Skeedow	Tetsugaruka	350,000
Oct. 29, 2010	Skeedow	Tetsugaruka	350,000
Oct. 29, 2010	Skeedow	Heytun	345,000
Oct. 29, 2010	Skeedow	Heytun	345,000
Oct. 29, 2010	Nekobowl	Heytun	348,000
Oct. 29, 2010	Nekobowl	Heytun	348,000
Oct. 29, 2010	Rarut	Heytun	345,000

Comments (50) [icon]

Screenshots (1) [icon]

[Submit Screenshot](#)

Recipes

id:2017 [Smithing](#) (??) [Goldsmithing](#) (??) [Woodworking](#) (101)

Materials	Cost	Rate
Wind Crystal	167	
Imperial Wootz Ingot x2	700,000	12.64
Piece Of Bloodwood Lumber	7,500	0.88
Platinum Ingot	6,000	5.50
Spool Of Wamoura Silk	5,000	0.76
Total Cost	718,500	

Results	HQ	Value	Profit	Rate
Mezraq	0	225,000	-493,500	0.14
Mezraq +1	1	0	??	0.00

Wanted

Player	Price
Quetzalcoatl	350,000
Valefor	1

id:3120 [Smithing](#) (99)

Materials	Cost	Rate
Fire Crystal	83	
Chunk Of Iron Ore	1,000	3.85
Chunk Of Khroma Ore x2	261,000	14.21
Chunk Of Wootz Ore	5,000	12.96
Total Cost	267,000	

Results	HQ	Value	Profit	Rate
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A screenshot of the FFXI Auction House website entry for Imperial Wootz Ingots. The upper left block shows how many items are listed; item categorisation in Auction Houses; costs and how quickly they sell. Links are provided to FFXI fan sites with further information: FFXIclopedia in English and Japanese. Information about recent sales – prices, transactors and date – is shown upper right. Price histories and comparisons are lower left. Lower right are crafting recipes, costs and profits.

or moving up; plummeting down or falling; and see-sawing back and forth. Health is another metaphor. Markets feel robust, stable, fragile or vulnerable. At some level, these descriptions are attempts to make complex economic events and metrics comprehensible. Metonymies that substitute “markets” or “the market” for aggregated economic actions and decisions of a vast group of actors which, from an economists' perspective, constitute a market. Yet in interpreting and repeating such language, such distinctions are easily lost.

One of the ways human beings understand complex phenomena is by re-interpreting or re-making them in our own image. Such practices produce divinities and cosmologies as well as markets and economies. Knorr Cetina and Bruegger's (2002a:169) traders imbue markets with agency, and respondents identified markets as having a life of their own, but what animates markets?

Unexpected outcomes of aggregated economic activity can make markets seem like actors, but in 21st century financial markets, virtual worlds and even online auction sites, there are not-quite-human actors playing increasingly active roles. In SL and FFXI, scripts are used to control avatars or characters which then become bots performing a small repertoire of actions. In Second Life, real estate arbitrage is the predominant botting strategy, while in FFXI resource extraction – mining, fishing and harvesting – along with crafting, are the principle activities. In high finance there are also non-human agents: algorithmic trading programs.

In algorithmic trading, computers directly interface with trading platforms [such as Monitor], placing orders without immediate human intervention. The computers observe market data and possibly other information at very high frequency and, based on a built-in algorithm, send back trading instructions, often within milliseconds. . . some algorithms now automatically read and interpret economic data releases, generating trading orders before economists have begun to read the first line. (Chaboud et al., 2009:1)

Though this explanation mistakes computers running the software for agents rather than the

programs themselves, it conveys a general sense of the phenomenon. Algorithmic trading software and bots, like the financial markets and virtual worlds they inhabit, are complex sociotechnical assemblages. These scripts or programmes incorporate their creators' assumptions, heuristics and trade tricks combined with their users' preferences. These programmes require the same technological infrastructures as their host computers, virtual worlds and international markets. When algorithmic agents and bots are loosed upon markets to trade and produce goods – at speeds far exceeding human capacities (Palmer, 2009:35) – it is tempting to shout out, like Doctor Frankenstein, “It lives!” Algorithmic trading software and bots are not alive, but they do act. They behave as though they have agency.

Robo-traders are unlikely to trade with one other, as they tend to adopt similar market positions (Chaboud et al., 2009:2), which means their trading partners are more likely to be human. In SL real estate arbitrage, human sellers and buyers are often connected by a bot. A parcel of land sold cheaply by accident is purchased nearly instantly by a land bot, then flipped at a higher price to a human buyer. Algorithmic trading agents add volume to markets in the form of high speed trading, producing the increasingly rapid flows of information that Knorr Cetina and Bruegger (2002a, 2002b, 2002c) identify as a crucial component in the emergence of markets as lifeforms. In this respect, algo-traders resemble bots in FFXI that automatically extract resources and create goods, filling Auction Houses with basic commodities. Without these hybrid actors, foreign exchange markets (Kite, 2007), real estate in SL and Auction Houses in FFXI would be significantly less busy, and less likely to seem alive with accumulated non-human agency.

Lay theorists' reconciliation of markets as both lifeforms and as spaces seems bizarre until we

consider the state of our own habitat, whose complex abundance of life and energy seems to make the planet an enormous organism. Without considering Lovelock's Gaia hypothesis or transhumanist visions of markets as nascent singularities – though Knorr Cetina and Bruegger (2002c:389) flirt with this idea – lay theorists imagine markets as sociotechnical assemblages of such complexity that they seem to act independently. Such hybrid entities can perform as actors while also providing space for other economic actors. In this view, markets exist in parallel as spaces and lifeforms, they are not merely habitable, but can become economic microhabitats. In the case of foreign exchange markets, microhabitats that provide a working and temporary living space for monies, traders and economic institutions; while FFXIAH provides leisure and working space for players, Real Money Traders, virtual goods and in-world economic institutions like Auction Houses and bazaars.

If markets are spaces, what are their qualities? Slater and Tonkiss (2001:36, 11) argue that markets produce and maintain forms of order while also requiring ordering. Markets and commercial spaces in everyday life offer predictably organised, familiar people and goods, but are simultaneously exotic and carnivalesque. Fear of merchants and alternative routes to prosperity and power achievable through commerce is a cross-cultural theme. From a Confucian perspective, merchants are lowly personages, labouring neither with their minds nor with their hands (Taylor, 1989:498). During the Zhou and Han periods, emergence of a “flourishing merchant class ambitious for higher status” (Taylor, 1989:500) challenged dominant elites in rigidly stratified Chinese society. Similar conflicts arose in Japan after the establishment of the Tokugawa shogunate brought an end to the monopolisation of commerce by former samurai and their sons, which precipitated the rise of a new, Osaka-based mercantile class (Crawcour, 1963:390-391;

Shivley, 1965:124). In both countries, markets were framed as disordered, dangerous spaces requiring strict regulation, while newly-wealthy merchants were subject to strict sumptuary laws (Taylor, 1989:501; Crawcour, 1963:391; Ramseyer, 1979:212; Shivley, 1965:125). Weber ([1923] 1927:213-215) provides similar examples from European history, echoed in Slater and Tonkiss (2001:11), who note the development of marketplaces “provided an important basis for local lawmaking and enforcing and for establishing local courts and policing”. In late medieval Europe, periodic markets were organised around regional fairs (Pirenne, 1969:137) that were arranged to coincide with saints' feast days and religious holidays (MacKenny, 1987:180; Bakhtin [1941] 1984:8). Such markets would play host to vegetable stalls, butchers and sellers of household goods, along with tumblers, theatre troupes and anyone else hoping for pecuniary benefit from a large crowd (Tydeman, 2001; Bakhtin, [1941]1984:5). These markets were spaces for entertainment, gawking and wonder. Medieval markets, like visiting Portobello Road in London today, were places to see and smell exotic, mysterious things – particularly spices, associated with the Earthly Paradise and exotic kingdom of Prester John (Freedman, 2008:81) – to be entertained largely for free by performers of various types (Tydeman, 2001) and, for some, to make money.

Historical images of dangerous markets requiring regulation are strange and familiar. Strange because of increasingly normative notions of market freedom in contemporary Western capitalist societies, familiar in the wake of recent (Colander et al., 2009; Fine and Milonakis, 2009; New Economics Foundation, 2010) and not-so-recent (Strange, 1986[1997], 1998) financial crises. Such examples parallel the attractions of risky financial markets, the adrenaline of fast information flows or a FFXI player watching commodity prices rise and fall at FFXIAH with corresponding enthusiasm or despair. However, this does not mean that markets are a corrupting scourge of

civilisation. Participants argued that danger only arises when economic actors disobey tacit social contracts and expose other actors and markets themselves to risks. Thus, markets are not dangerous by default, but become so when some individuals make poor decisions or discount the welfare of others..

If markets are spaces where various types of order are made and unmade, then we must next ask a Goffmanesque question: where is the action and what is it? Callon (1998:3) argues that markets are spaces for “calculative agents” that are embedded not in society, but in economics (Callon, 1998:30). He continues (1998:2,22,30), saying economics “performs, shapes and formats the economy” suggesting that markets are products of and sites for the performance of economics. Economics itself *is* the action. Performative approaches – using varying definitions of “performative” – have been applied empirically in high finance (MacKenzie, 2006; Garcia-Parpet, 2007; MacKenzie et al., 2007; Beunza and Garud, 2007), but Callon (1998:19) argues this formulation is generalisable to everyday practices. However, such approaches become problematic when considered outside the limited niche of commodity exchanges and financial markets. In a strawberry market where producers have invited an economic specialist to assist in developing and improving their produce sales, distribution and marketing (Garcia-Parpet, 2007) it is not surprising that economic knowledge produces the strawberry market's new structure because it was economic knowledge that was sought out by that institution's stakeholders, the farmers. Local strawberry producers have a stake in ensuring the advice of the consultant is followed because his recommendations are believed to be beneficial. The advice was solicited, paid for and came from a person whose expertise was trusted. It is rather unlikely that the farmers would ignore what their chosen consultant recommended. As for financial markets, they are

overseen, managed and staffed by trained economists and experience-based economic experts. Thus it is not surprising that economic knowledge moulds these markets, because this is the principle form of knowledge that those actors possess. Moreover, the actors involved are committed to a particular view of how these economic places should operate that is largely drawn from academic economics or its popularised rhetorics. Expecting economic knowledge not to have an influence in these settings is like expecting an astronomer to set aside disciplinary knowledge and conventions in astronomy – the principle knowledge and expertise he possesses – in favour of running his observatory according to the rules of a genomics laboratory.

Miller (2002:219) criticises Callon's approach as a re-packaging of formalist economic sociology:

. . . Callon writes from the basis of an economists' vision, which has at its heart the assumption that most transactions within the capitalist world are indeed market transactions and that his task is to understand the mechanisms that allow them to work as markets. As a result, Callon follows the economists in mistaking a representation of economic life for its practice.

Miller argues (2002:221) Callon has taken a top-down approach, mistaking models for realities.

Callon (1998:2) has assumed market designs moulded by economics also determine economic practice. This conceptualisation fails to recognise that economists can only perform the economy insofar as the economy consists of settings where their knowledge is privileged or solicited. When everyone shares the same definition of the situation, specifically one that emphasises interpretive frameworks drawn from economics, we should not be surprised that outcomes reflect such consensus. Performative conceptualisations of markets hold true only so long as everyone, or at least a strong majority, in a given setting is singing from the same hymnal. To generalise from Callon (1998, 1999b), Garcia-Parpet's (2007) strawberry market or high finance (MacKenzie et al., 2007; Knorr Cetina, 2003, 2005; Callon, Millo and Muniesa, 2007; Knorr Cetina and Bruegger,

2002a, 2002b, 2002c) to wider economic life is an unfortunate inductive error. Callon's (1998) analysis assumes that economic systems – designed and moulded by economic knowledge and principles – will be used more or less as intended. Only very rarely do social systems, institutions, organisations or sociotechnical assemblages perform as their designers intend, because human beings are innovative, curious, fallible and unpredictable.

If economics shapes the economy, virtual worlds – which are explicitly designed, where users' ways of interacting with one another, economic and otherwise, are constrained by software – provide a perfect testing ground for this approach. Yet the existence of the FFXI Auction House website and Real Money Trading are testaments to ordinary actors' transformative capacities. Despite Square-Enix game designers' intentions that players must be logged into FFXI and standing in front of an Auction House in-world to access economic information, and that sales data from multiple Auction Houses across different servers should remain separate, players worked together to create a comprehensive database of transactions accessible with an internet browser. Players have also developed a wide repertoire of unexpected modes of engagement with economic institutions in FFXI, subtly modifying the meanings of economic practices. Before FFXIAH, the Auction House was just as much about advertising and displays of wealth as buying and selling, with skilled artisans using sales listings to attract clients directly and players buying items from themselves for fabulous sums to demonstrate outrageous wealth. Despite Square-Enix designers' intentions that the virtual economies of each FFXI server should be separate from one another and from capital outside Vana'diel, monies and commodities from FFXI also participate in circulations of real and virtual capital through Real Money Trading.

Defining, Playing and Saving the Markets of FFXI

Players' understandings of markets are sophisticated partly because these explanations developed through protracted community-wide debates about chronic economic instability in fan forums and chat sites, FFXI wiki projects, linkshell discussions, in-world conversations and everywhere in between. In a 2003 interview, Megatron, a casual player, gave an account of a long car journey which descended into a vociferous debate amongst three of the four passengers over Real Money Trading and fishing bots. Questions about how markets work, what they are, and how they can be protected, fixed or maintained are foundational aspects of players' engagement with economic life in FFXI. Though the role of token money systems in producing parallel systems of exchange and ring-fencing certain commodities is interesting for participants, the driving issues in these debates lie elsewhere. Most players are interested in gaps between design and practice, with long-term players like J deriding decisions of "stupid game designers", and self-regulation issues, or establishing a moral framework for acceptable economic practices. Players' accounts of markets also suggest resistance to economics by design, or micro-level subversion of economic institutions. Respondents frame markets as vulnerable entities that require protection and exercise agency. Arguments over the economic consequences of "playing the market" and "camping the AH" are not so much about who is right and who is wrong in presenting a definitive account of economic instability – as with debates about the L\$ in SL – but about deciding the ethical dimensions of economic action in the imagined spaces of FFXI's markets. Players also emphasised specificity and defining boundaries, asking repeatedly for clarification and references when talking about markets in interviews. Respondents defined markets through nuanced accounts of economic practices with implicit concepts and models, drawing on multiple, extensive repositories of shared knowledge.

In contrast with academic theories, lay theorists were quick to point out that markets are neither abstract nor a black box. An interview question asking what terms such as “the market” or “forces of the market” mean with respect to FFXI prompted many requests for specification. Vlad's response, though humorous, is typical:

talking about random shit is fun but I thought this [interview] was srs [serious] business
what do you mean by the market? RMT? Bazaars? AH? FFXIAH? Crafting stuff?
R[are]/E[xclusive]?

Vlad uses the “s[e]r[iou]s business” meme as a joke and as a challenge to what he thinks is an ill-conceived question. Sometimes respondents' requests for clarification were incredulous, questioning how I could be so naïve as to talk about “the market” or other abstractions. Like Vlad, most interviewees found such abstract phrases irrelevant to their framings of markets, which are firmly rooted in practices. Players did not dismiss markets as irrelevant – as SL residents did – but wanted guidance about which markets and contexts were up for discussion. “The market” and similar phrases were at one too vague and too specific, they did not represent the plethora of markets players experience, and the multiple conceptual models upon which they rely. For such lay theorists, markets are both empirically grounded and fluid.

A discussion with Coejus, Sukili and Ramuss demonstrates this conjunction of specificity and vagueness. A detailed discussion of conditions in a narrowly defined market is followed by a puzzled reaction to what “the market” means. The discussants had been talking about economic volatility, and Sukili suggested that a larger population of characters achieving high levels and crafting skills was responsible for changing economic conditions.

Sukili: I'm not sure what the latest FFXI census³² says, but there's tons of "higher"

³² Square-Enix produces a Vana'diel Census each year.

level players on the game these days. They're [sic] needs are different.

SR: ok. So with player base changes in mind, compared to say 3 years ago, what items are more likely to be necessary commodities now that weren't necessary then?

Coejus: I guess the Scorpion Harness back then was a luxury but now they're so common they've become necessary for some jobs

Ramuss: I think as people have progressed thru the game, alot of items have changed from luxury or only something the "rich" could afford to use

SR: How does that trickle down effect of luxury gear happen?

Sukili: Supersaturation of crafting items

Coejus: high level crafters pumping them out like crazy, trying to get an HQ

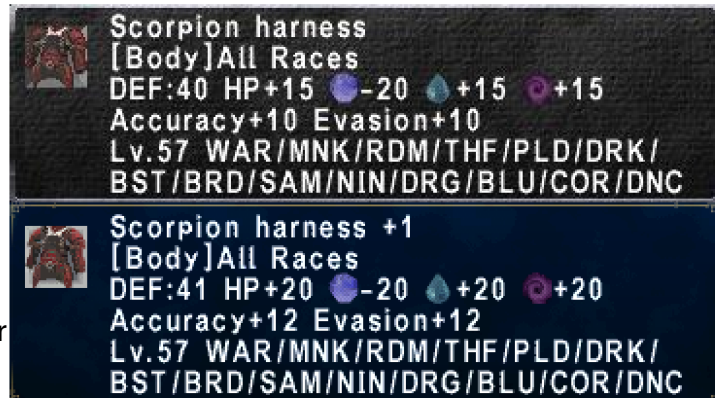
Ramuss: I'd assume more of the said item, gets introduced, and with more and more getting introduced, market value goes down

SR: That explanation would explain why HQ prices seem to change much more slowly than NQ³³ prices. So this is a supply and demand issue: more of an item means it costs less?

Ramuss: exactly

Coejus: loses it's value and people keep selling it lower and lower to get rid of it

Sukili: Agreed!



This extract begins with a lengthy discussion of changes to the availability and affordability of what were once "luxury goods" in FFXI, particularly Scorpion Harnesses. Sukili points out that increasing numbers of players with higher level characters means two things: more consumers who can afford expensive goods, "higher level players", and a larger population of experienced artisans who can produce these commodities, thus "supersaturation of crafting items". In this view, more consumers and producers generate an over-supply of goods, allowing luxury products to go mainstream. Coejus suggests limited storage space is also a problem, as players need "to get rid" of old equipment, and crafters' desire for the more expensive high quality version, Scorpion Harness+1. In Coejus' view, consumption and production are not the only factors that can create change in

³³ Normal quality.

markets, storage space and desire for more powerful goods – high quality versions – are also important.

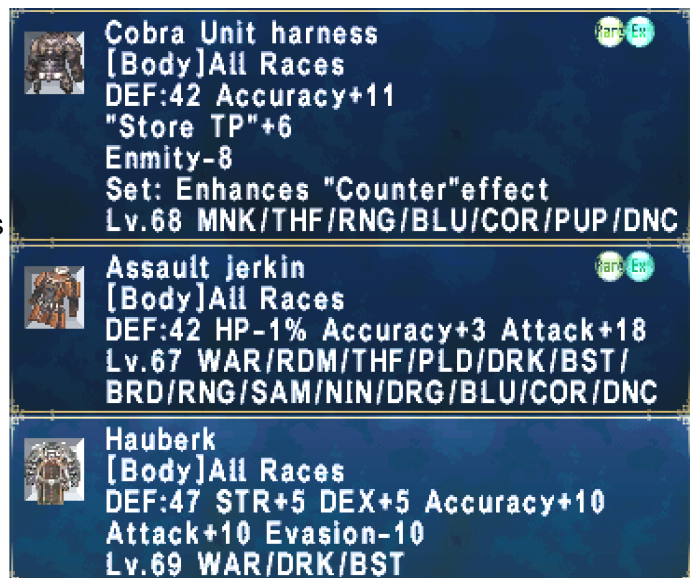
Ramuss, Coejus and Sukili provide a fairly detailed account of how a market for powerful equipment has changed over time. Their story emphasises production, consumption and storage capacity as well as implicit notions of human behaviour. Coejus and Ramuss point out that crafters want the achievement of making high quality items along with the higher prices such items command. Thus tradesmen are willing to over-manufacture normal quality Scorpion Harnesses for the chance of a +1 version. When this human tendency is aggregated and combined with desperation – the need “to get rid of it” created by limited storage space – prices drop. This is a simple supply and demand issue, but a nuanced understanding based on experience of human behaviour, economic conditions and knowledge of FFXI software constraints. Also implicit in this account is shared knowledge of an expanding material world. New items and equipment are regularly introduced, altering players’ assessments of value (as explored in chapter four) and changing acquisition and gear retention priorities. Limited storage space is even more salient under these conditions.

Coejus' choice of Scorpion Harnesses as an example is not an accident. Scorpion Harnesses were once highly desirable, but rather uncommon because they require a rare material: Venomous Claws. Increased Venomous Claw availability – designers added several less challenging battlefields where they can be acquired – and a gradual build-up of harnesses over time contributed to a drop in price. In choosing the Scorpion Harness, Coejus sets market boundaries

that are clear to other players of FFXI because of this object's particular, well-known qualities: it is crafted, not dropped from a monster or purchased through a token money exchange system; used by melee jobs such as Warriors, Ninjas or Monks; and provides excellent physical stat bonuses.

After Coejus specifies this item, his friends then bring to mind a constellation of similar commodities that, together with the Scorpion Harness, form a particular market consisting of

“luxury” goods that are now standard issue equipment. This market, limited to items traded in Auction Houses or bazaars, includes melee body pieces useful from level 67 to 75 – or less for some jobs – along with some other equipment that has Evasion and/or Accuracy bonus. Thus this market includes



Hauberks, but does not include Cobra Unit Harnesses or Assault Jerkins, both of which cannot be exchanged between players. Assault Jerkins are acquired from a notorious monster, while Cobra Harnesses are tied to a token money system.

Coejus' example tacitly frames what commodities are in this market and their qualities, which is evident to his friends. The discussants clearly understand what has occurred in this particular market at a sophisticated level. However, the conversation continued thus:

SR: ok. In the everyday world, people talk about “the market” or “the forces of the market”. What do you think these phrases mean in the context of FFXI?

Ramuss: can you elaborate on what you mean by "the market" or "the forces of the market"? i dont quite understand =/

Coejus: Well, they kind of mean the same?

SR: that's a valid answer, Ramuss.

Ramuss: =/

Sukili: A winner is you Moose!³⁴

SR: A market is defined many ways, but for this purpose, it could mean buying and selling of things (sometimes specific things: eg: commodities market, or currency market). Some people talk about gilsellers as being a market force, because they are able to change prices by undercutting with huge volumes.

Ramuss: ahh [o]k

Sukili: That would seem accurate

Ramuss: so would a market force be like, people using tactics to "corner the market", etc...?

Though respondents had been engaged in an analysis of a quite specific market – high-end crafted equipment – asking about an abstraction flummoxes Ramuss, amuses Coejus and prompts no reply from the usually voluble Sukili. Despite abstract discussions about exchange, money and value, when asked about an abstracted markets, respondents prefer, or demand in Vlad's case, empirical grounding. Given a few examples, Ramuss offers “corner[ing] the market” as an example of a market force, one of the contested practices players identified as “playing the market”.

Though Vana'diel has neither financial instruments nor high velocity financial markets, there are many practices that fall under the heading “playing the market”. Players’ discussions of these practices illustrate moral dimensions of market behaviour along with implicit models of markets.

Mumitroll, Duck and Ftpol suggest several market-playing strategies:

SR: How do people “play the market” in FFXI?

Duck: spend hours window shopping and memorizing patterns of buying/selling

Mumitroll: try to monopolize and manipulate prices is one option. arbitrage is another

SR: Can you elaborate on arbitrage?

Mumitroll: well that's old. dont know how well it works today but it used to be profitable to buy stuff in Jeuno and sell in the 3 cities AHs or vice versa

SR: Or buy from NPCs and sell in the AH?

Mumitroll: yea

Ftpol: i remember many pikas³⁵ used to get conquest points. then selling CS [Conquest points] items

³⁴ Moose is Ramuss' nickname. “A winner is you” is another meme.

³⁵ Pikas, short for pikachus, is German slang for Tarutaru characters because of their tiny stature.

Market-playing strategies have caused protracted, community-wide debates as players attempt to reach a consensus on the limits of safe or morally responsible economic practices. Activities that endanger FFXI markets, causing economic instability – some monopsonies and monopolies, price or market crashing and market flooding – are seen as negative, destructive behaviours. Players believe that some ways of playing the market increase economic stability or produce other positive results, such as arbitrage and early monopolistic exploitation of new commodities. However, some practices – like price gouging – are neither categorically good or nor bad, and must be judged on a case-by-case basis. Bringing goods from ring-fenced token money exchange systems into general circulation, usually through bazaars but sometimes in the Auction House, can be positive or negative depending on what is being sold.

At the positive end of the spectrum, arbitrage is considered a necessary part of economic life in FFXI. An overwhelming majority of players consider it acceptable because, as Lame Deer said, “no one wants to run from Bastok to San d'Oria for [fishing] bait”. Where and from whom basic crafting materials – particular foods – are sold changes from week to week as the geo-political influence of Vana'diel's city-states over specific regions waxes and wanes. Regional vendors in a city only have access to goods from regions that city-state controls. Players can invest time, checking each week to see which city controls what territories then traveling to the relevant vendor, or simply check in Jeuno's Auction House to see if someone else has performed this labour already and put the goods up for sale. Ashira explains:

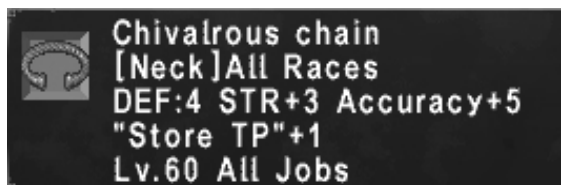
people still make money off buying say, maple sugar in San d'Oria and putting it on the Jeuno AH.

Players who sell commodities acquired in this laborious fashion are performing a valuable service,

making goods available that are inconvenient to acquire otherwise. Respondents prefer to pay a small premium in the AH rather than spend time researching where commodities can be purchased. In this view, playing the market with arbitrage is beneficial, because it enables many players to spend their time in Vana'diel more enjoyably.

Similar logic applies when new goods are introduced but only a few players have access to the battlefields or vendors that generate them. When such players make new commodities available in Auction Houses, they can set higher prices than their labour might usually command. Keepa explains:

When items are first released and everyone behaves like "Oh gee I want this before anyone else!!" you get Joe who finds out how to get the item and then sells it for an enormous price. For example, when assault missions first came out and the chivalrous chain was released into the economy, I was perhaps the first person who obtained one. I then proceeded to the Auction House and slapped an 8Million price tag on it, and someone bought it.

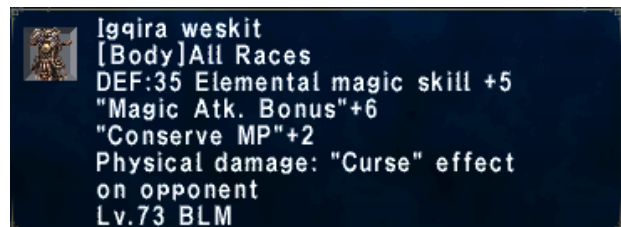


By 2010 Chivalrous Chains sold for approximately 100,000 gil on Keepa's server. The first few sales were expensive because players "want this before anyone else", which justifies charging a prestige price. From an economist's perspective, Keepa's, Ashira's and Munitroll's examples of arbitrage suggest that information asymmetry is a characteristic of markets for lay theorists. Yet respondents did not explain these issues in terms of information, because all this data is available on fansites, even in Keepa's Chivalrous Chain example, as .dat mining – using custom software to explore the game's binary (.dat) files – brings new items to light before they are introduced. Instead, what seems to be information asymmetry was explained in terms of labour allocation and time, choosing to look up the source of an item online, or to pay 8 million; deciding to run to San

d'Oria or buying bait in the Auction House. However, like Yoruba merchants who must avoid accusations of ajeju, or "unnecessary profit" (Guyer, 2004:104-105), purveyors of new commodities and arbitragers must be careful to maintain stable pricing to avoid accusations of price gouging. Keepa's first Chivalrous Chain was sold for 8 million. If he tried to sell the next one for 10 million, he would have risked being criticised – usually on the FFXIAH website, or other fan forums – as a price gouger. Selling his next chain for the same price (or slightly less) is acceptable, at least until there are more than a dozen or so on the server.

For mundane food items, unnecessary profits are rather unlikely, as sellers of these goods use them as a steady income. "Jacking up the price just rocks the boat," explained Cirdan, de-facto leader of a carpentry syndicate on Omega server. However, there are occasions when gouging is acceptable.

Shukudai: I know a bonecrafter who was pissed at another bonecrafter, who was constantly undercutting on Igqira Weskits. so in return, he went out and raised the price of Dragon Talons by like 25k/ea[ch]. So if the guy wanted to continue to undercut, he'd take an even bigger loss. I can't remember why he was so pissed now. I hate crafting. He bought up all the stock on one character – Riddaraan: Didn't Sherlock do something like that with Cursed Mitts?



Shukudai: – and bought it on another. Sherlock did something like that, I think he said.

SR: he mentioned something like that.

Riddaraan: People kept undercutting him during his duration of trying for HQ. So finally when he got his HQ he put up the rest of his stock for like 1/5 of the price, causing it to crash in value.

Shukudai suggests that when a crafter has already undercut other tradesmen, price gouging can be an acceptable response. Dragon Talons are the most expensive component in producing

Igquira Weskits – another luxury good turned standard issue commodity, again because of changes to component generation conditions – and are used in only two other items, neither of which are particularly sought-after. In buying up all available talons, hoarding them for a while and then selling them back at an inflated price, Shukudai's friend forced other tradesmen to pay higher prices for materials, diminishing their profits. If the tradesmen decided to pass on added costs end consumers with a price raise, it would only repair damage done by previous undercutting. In this view, markets are not price-making mechanisms, individual producers are. These lay theorists see themselves as agents of change, makers of markets and shapers of economies.

Fair price is another important aspect of how markets operate in participants' lay theories. For players, fair prices are not established by what “the market” will decide, but rather responsible selling decisions. Unfair prices do violence to players' conceptualisation of FFXI as a place where actors treat one another justly and such prices are believed to cause economic instability. In this view, economic fairness becomes synonymous with stability over time. For these lay theorists, instability arises from poor decision making, thus individual producers and consumers exercise meaningful and consequential economic agency. Only when prices are perceived to be unfair, for producers, sellers or buyers, can ordinarily destructive practices, such as price gouging, be excused. Sherlock explains: “oh ya sure it's price gouging, however I'm combating the undercutting that is constant.”

Though gouging can be framed as restoring fair prices, crashing and flooding are more problematic. Sherlock's crashing of Cursed Mitts prices is part of a longer story:

J and I have been trying to hq cursed mitts -1 for about 10-12 months now, finally

did it the other night [. . .] Cursed Mitts: about .5 pairs sells a day, so 1 every other day. Normally players undercut 10k per sale. Now if the price is 80k on the AH id rather /shout sell for 50k than undercut lower than the other 5 pairs on the AH because in that case id have to undercut to 60k and then my 50k /shout is not nearly as appealing. I can sell a handfull of pairs while not lowering the AH price

Over the months he and J spent trying to produce a high quality result, Cursed Mitts -1, they had carefully avoided behaviour believed to generate instability. Though Sherlock and J had produced 144 pairs of Cursed Mitts, they avoided flooding the Auction House and crashing prices by selling them in Sherlock's bazaar, which required him to sit in Jeuno for hours hawking his wares. Though this strategy avoided Auction House fees, it was inconvenient. After their efforts to behave responsibly, another crafter decided to flood and crash the same commodity. This drove down the price Sherlock and J could reasonably demand as well. After achieving the Cursed Mitts -1, Sherlock responded in kind, as recounted by Riddaraan, crashing the price even further and making production of Cursed Mitts a complete loss for any crafter. Though Sherlock's reaction resembles an economic fit of temper, in broader context, it is possible to feel some sympathy for him. However, as Shukudai pointed out – pleading for a crash in prices of Homam leg and hand armour – when crafters bicker sometimes consumers stand to gain.

Another way consumers can benefit is by “camping the AH”, or standing for a long time in front of an Auction House placing extremely low bids on expensive items, or repeatedly placing lower than median bids on commodities. Riddaraan, Shukudai and Qanael explain:

Qanael: It's just basically making money not through actually obtaining stuff, but using the price differences in the A[uction] H[ouse]

Riddaraan: And camping the AH, is people who just sit, I think, and try to buy things for low amounts of gil, hoping someone puts something up for the wrong price, or a very low price in order to sell it fast.

Shukudai: Camping the AH = Sitting on the AH and refreshing it alot waiting for an item to be up for sale/for sale for a certain price.

From Qanael's description, camping the AH seems like arbitrage, but Riddaraan and Shukudai offer clarification. Riddaraan's "wrong price" can be a mistake made by a seller who drops a zero – inputting 100 gil instead of 1,000 gil as the minimum threshold for a listing – which easily happens when selling several stacks of goods in haste, or can be a deliberate attempt to sell items quickly. Auction House campers seeking dropped digit deals tend to focus on fast-moving commodities sold in stacks of 12 or 99. As the difference arises from a mistake, or reasoned choice, on the seller's part, and such items are generally quite inexpensive, this is not seen as a detrimental practice, but as a lucky dip or harmless entertainment.

Underbidding by 25-30% (based on sales history prices) then placing bids increasing by 1-5% is another technique. This strategy takes advantage of sellers' attempts, through undercutting, to manipulate default sales priorities in FFXI Auction Houses. When listing an item, sellers indicate a minimum price. Listings last 72 hours in FFXI Auction Houses and identical commodities are sold in order of lowest threshold prices. When two items have the same threshold price, the one listed first will be sold. For example: Jill lists an Iron Sword at 2pm and asks 1,200 gil. The last seven Iron Swords have sold for 1,200 gil, so this seems reasonable to her. Eve lists an Iron Sword at 3pm, also for 1,200 gil. If Karen places places a bid of 1,200 gil at 4pm for an Iron Sword, Jill's will be sold first. So far, this resembles a transaction proceeding according to designers' intended uses of the Auction House. No one is refreshing the AH screens repeatedly, creating extra server traffic that slows the surrounding area to a laggy crawl. This scenario features actors who are not very canny. They imagine only their own motivations and consider this transaction in isolation without reference to how the Auction House works or others behave.

Let's imagine a slightly different situation, one closer to the reality of players' practices, and quite far from FFXI's designers' anticipations. Harriet lists an Amemet Mantle for 500,000 gil, the same price as the last one sold, which was two weeks ago. An hour later, Marie lists another Amemet Mantle. She knows there is already one for sale, and suspects the other seller has consulted the price history and asked the usual going price. Amemet Mantles sell slowly and Marie does not want to pay an expensive listing fee twice, so she sets her threshold price at 459,999 gil. If a seller offers 500,000, her mantle will sell first. Kim wants to buy an Amemet Mantle. She notices there are two for sale, and suspects that one seller might try undercutting. First Kim bids 400,000 but her offer is not successful. She tries 450,000 and again her offer is refused. Usually Kim would go directly to 500,000 but today she feels like a gamble, and tries a bid of 460,000 and receives Marie's mantle. Most players would see Marie's undercutting as destructive because it upsets price trends, creating possible economic instability. Kim's gamble, however, is acceptable, as she has outwitted the undercutter, giving Marie less than she may have hoped for from the sale. Though her purchase has initiated a price drop, Kim bears no responsibility for any negative repercussions, as it was Marie's decision to unfairly undercut which created this possibility. In this view, markets are not self-regulating, but rather managed and maintained through individuals' responsible actions, while individuals' poor choices are a principle cause of instability. Curiously, those who benefit from such bad decisions are not held to account, even if – as in Kim's case – their actions were premised on a hunch that someone else has behaved irresponsibly.

Giving undercutters their just deserts and searching for dropped digits are the most common AH camping tactics, but players have developed other unexpected market practices. Some players list very expensive commodities with extremely low threshold prices, then immediately buy them back.

These pseudo-sales, in which the seller buys his own listed item, create records in the AH history. This shows ownership, particularly with newly introduced or very uncommon items, or advertises crafting skills, so players seeking similar items can contact the maker directly. Sometimes such sellers are amusing themselves by cluttering up the sales history, but a canny AH camper can snipe such listings, acquiring valuable objects for next to nothing. Players' practices have socialised the intended anonymity and utilitarian focus of Vana'diel's Auction Houses. This bottom-up social embedding is understood by players as both entertaining and useful.



Sales history for an Amemet mantle with playful sales and a successful lowball bid.

Faced with a perfect economic market that automatically matches buyers and sellers, gamers have put their own stamp on this economic institution through innovative use. Implicit in this playful engagement with economic mechanisms and institutions is a belief that economic activity and agency need not always be serious affairs, and that the designed functions of economic institutions can be subverted or changed through individual actions. Bazaars are also sites for innovation, and are used not only for selling items but also to display them, providing information about social ties, sentimental goods and achievements. The bazaar illustrated has only five items that its owner



expects someone might buy: Kotetsu +1; Cluster Core; Kingdom Signet Staff; and two Ruby Rings. The Malgust Ring is rather useless, as is the Rain Lily, which is sold for 96 gil by NPC merchants, while pearls are useful, but not particularly expensive. The prices on these items –

99,999,999 is the maximum amount of gil a character can possess – indicate that they are not really for sale. The Giant Donko is an easily caught fish, but its name is used as ribald slang, thus the 1,000,000 gil Giant Donko is an elaborate dirty joke. Sometimes bazaar listings are a jest whose punchline is no more than “made you look!”

Players' innovative practices have changed the scope of economic action in Vana'diel. Certain activities – particularly lag-generating AH camping and comic bazaaris – are subversive, at cross-purposes with designer's intended functions and forms in FFXI markets. In developing practices unexpected by designers, players have made their own contributions to shaping economic life and the functioning of economic institutions. Real Money Trading and the FFXIAH website are further examples of activities outside or beyond the economy as designed by Square-Enix's developers. The Final Fantasy XI Auction House website is a fan-created and maintained application that tracks transactions in real time from Auction Houses on each server. Like the in-game Auction House which it emulates, FFXIAH is a highly organised space. Users can submit text-based queries with a variety of filters to the FFXIAH website's database which are processed faster than the category-based browsing of the in-world Auction House, making the database much easier to search than Auction Houses in FFXI. For many interviewees, FFXIAH is a brilliant enhancement. Coejus describes it as “faster than the FFXI AH” and admits “i sometimes even use it while i'm at the AH [in-world]”.

To the extent that FFXIAH replaces visiting an Auction House in-game and provides extra data, it represents a player-created overflow area for FFXI's economy and players' virtual economic lives, a fix for the “broken” in-world Auction House. The FFXIAH database makes visible economic

information that some players once painstakingly tracked and generated themselves (as discussed in chapter five). With a simple interface, speedy response time and extensive search parameters, FFXIAH resolves players' main complaints about in-world Auction Houses as R2D2 explains:

FFXIAH is faster than the AH [in-world]. It also shows price changes over time, more than the last ten entries, which is useless for things like shihei. Those sell about 10 stacks in an HOUR! I can type in FFXIAH, and look for something even if I'm not sure what [Auction House] category it's in. The categories don't make sense all the time – why is fishing bait listed under ranged weapons??!! FFXIAH is what the AH [in-world] should be.

Faced with a market institution that did not live up to their expectations, fans worked together to produce a simulated Auction House outside FFXI, one that provided information they wanted with an improved interface. Implicit in this collective action is a belief that institutions can be made and re-made by ordinary economic actors, that an economy need not be accepted “as is” but can be a project to that is collaboratively developed. Such lay approaches suggest that economic problems can be solved pro-actively outside communities of expertise.

Real Money Trading is a more contested economic overflow area. For the majority of players, buying gil is unacceptable, while gilsellers (Real Money Traders) are economically destructive actors. This public morality is occasionally at odds with private sentiment and practice. One interviewee, who asked to remain unnamed, described his opinion thus:

A lot of the stuff in this game you have to keep quiet about. but people are so closed minded. they [gilsellers] aren't like evil people. they are just people trying to make a living. I don't condone it. I don't think its okay, it hurts the game I love.

FFXI is perceived as a meritocracy, a place where all characters have similar beginnings and achievements must be earned. However, buying gil provides an alternative route to power, one that circumvents hours of hard work and represents a threat to players' conceptions of social order

in a virtual world they cherish. Yet a number of players buy gil, even if it only happens once and they feel guilty about it afterwards.

Real Money Trading creates a shadow economy, a series of black markets run by competing companies selling virtual goods. Players argue that RMT also distorts valuation of money and creates alternate, incompatible conceptualisations of markets. Rain explains:

Gil buyers will pay any price for something. They'll accept price-gouging because gil means nothing to them. They didn't EARN it. They can just buy more. Gil sellers monopolise some items and jack up the price, so they make more gil. Then people buy gil so they can afford to buy this stuff at inflated prices. It's a vicious circle! The rest of us who don't buy gil get left out, we can't farm or craft fast enough to make money and buy the things we need or want.

In Rain's view, gil buying produces players who do not understand relationships between price and economic stability. Having bought gil, such actors cannot appreciate the labour of farming and the impact of their money buying practices. Gil buying and selling creates parallel, black markets but also generates competing conceptualisations of just price, one that conveniences individual convenience over fairness and long-term stability. Moreover, Rain argues that the activities of gil sellers drive demand for gil buying.

Rather than a top-down vision of an economy performed and formatted by economists, as Callon (1998) suggests, FFXI players present a picture of resistance to economics by design. Even though the game world's economy is more strictly constraining than could ever be achieved in everyday life, players are still able to subvert these mechanisms to their own purposes. Though an economy may be formatted by designers or economists, actors need not follow the rules. Going one step further, many interviewees blamed designers for economic instability. Sherlock claimed

that developers are often “out of touch” with players' goals and desires. A conversation amongst

Yukikaze linkshell members neatly encapsulates some competing views:

Molaikai: 4 mill for a scorpion harness?! the market is broken

K: SE [Square-Enix] broke it

R2D2: nah just crafters

Kasha: fuckin RMTs [Real Money Traders]

K: RMT couldnt break it if SE did their job right

Pete: RMT dont make scorp[ion] harness

Penpen: but crafting bots = RMT

R2D2: gilseller bots make arrows tools

R2D2: not eq[upiment]

K: if SE werent idiots thered be no bots

Molaikai: its all them dammit

Penpen: suck it up grumpygils

In this extract, each speaker presents and defends a different view of economic instability with implicit models and conceptualisations of markets and practices. K suggests that poor decisions by game developers create an unbalanced game with “broken”, volatile markets, and if the company were more attentive to players' complaints there would be no gil sellers or crafting bots. Implicit in his view is a confrontation between players who know FFXI markets through participation, and designers who have only abstract knowledge. In K's view, players have economic agency but only insofar as designers allow them to exercise it.

Kasha argues that Real Money Traders are responsible. Though he does not make this clear, the usual support for this argument is that gil sellers distort designers' intended routes of money supply, distribution and removal. Implicit in Kasha's position is a view of markets populated by multiple types of actors and agencies with shifting levels of power operating in a shared space. In this view, Real Money Traders acting in concert can upset other players' engagement with economic life. As a group with a fairly coherent strategy – one that emphasises profit for their

group or company rather than economic stability – RMTs can overpower other economic actors who place greater emphasis on collective economic well-being. R2D2 takes a position more fully articulated in a discussion below, claiming that unscrupulous or careless crafters are responsible. Pete, mistaking the market dimensions of Molaikai's complaint – thinking he meant only Scorpion Harnesses and high-end equipment – says that Real Money Traders cannot be responsible, because they do not produce such commodities. In Pete's view, markets are not shared spaces as Kasha conceives them, but are more compartmentalised. For Pete, there are many kinds of economic actors but there are also many market segments. Instability in one sector may not contaminate or unbalance another. Thus bots making consumables will have very little impact on availability and price fluctuation of high-end equipment.

Penpen counters that crafting bots produce endless streams of commodities, flooding Vana'diel with raw materials and low level consumables. From his perspective, the glut of goods bots produce puts their RMT owners in control of economic life and stability in FFXI. Ordinary players cannot generate enough goods to restore fair prices. The stability achieved by bots is one that is premised on an unfair evaluation of labour. PenPen's framing is strange yet familiar, it echoes discussions about Fair Trade and free trade. In essence, he is arguing that "foreign labourers" (gil sellers are widely assumed to be Chinese) create goods at a lower price because their labour is cheaper. Time is also cheaper for RMT workers because they can run multiple automated bots simultaneously, unlike players who must manually enter commands with one character at a time. R2D2 disagrees, asserting that crafting bots are not what he means by crafters, reasserting that the conversation is about high-end gear prices, not economic stability in general. Taking a broader view, Molaikai suggests that all these factors contribute to "broken" markets, damning designers,

crafters and gil sellers together. Implicit in nearly all the models and conceptualisations underlying this discussion amongst Yukikaze members is a view of individual economic actors with meaningful agency, whose decisions produce observable effects.

Riddaraan, Qanael and Shukudai propound a theory of skilled craftsmen as market manipulators based on similar framings.

Riddaraan: It's all crafters! Consumables are easy to obtain ingredients for but armor, not so much. However, in retrospect, does anyone remember 35k Silent Oils? That's an example of prices fluxuating like crazy

Qanael: Yeah, the high volume helps too, as it isn't as easy for one person to take a crap on the selling price

Shukudai: I don't! I remember 25k ones tho.

Riddaraan: The fewer crafters of an item, the easier it is for them to manipulate the pricing. Sometimes I think crafters have a secret LS or something that they use to coordinate global price scales

Qanael: DUN DUN DUNNN [theatrical flourish]

Shukudai: Crafters will go out of their way to screw each other over if they don't like what others are doing.

Though they argue that craftsmen are ultimately responsible for economic uncertainty, Shukudai, Qanael and Riddaraan's discussion is not a simple case of scapegoating. Shukudai's last comment suggests those who suffer most from these episodes are those who begin or incite them: crafters. Qanael and Riddaraan point out that commodities produced by only a few people are more likely to be volatile, with individual craftsmen watching one another closely for signs of undercutting or bad behaviour. Implicit in this view is a belief in the power of aggregated effects:³⁶ as more crafters produce similar items, prices, supply and economic stability are less easily manipulated. "High volume" also helps prevent manipulation, according to Qanael. From this perspective, crafters are both occasional architects of economic instability – being willing to "go out of their way to screw

³⁶ Strange ([1986]1997:8-11) presents a similar argument to explain increasing volatility in foreign currency markets and commodities (especially oil).

each other over” – and guardians of equilibrium, as providers of steady supplies of predictably priced basic commodities. To paraphrase Stan Lee, with great productive capacity, comes great responsibility.

In times of great volatility, Molaikai and others say, “the markets are broken”. In this assessment is an implicit argument that markets are not broken when they are stable, or at least not volatile.

Though “broken” does not suggest anthropomorphisation or markets as lifeforms, other players provide adjectives that suggest life or agency.

Dunes: someone went to the AH bought every single Silent Oil stack on it and did that for about 2 days. once the supply was at 0 he reposted the Silent Oil stacks for 4k over the cost they has been at for over a month or so people gladly paid

SR: Is that similar to RMT players trying to control trade in shihei or arrows?

Dunes: no it differs in several respects. . . the case i described above seems to be a random person who probably crafted way too many and decided to test the system. it has happened since

SR: What does that mean: "test the system"?

Dunes: sorry, i should have said, test the market, what would it bear, what would it shun etc

In Dunes' example, a player “tests the system” by monopolising a commodity then gouging the price, engaging in two negatively viewed market practices in succession. For Dunes, “the market” – a bundle of alchemical necessities for end game players available in Auction Houses or bazaars and from NPC merchants – can “bear” stresses and “shun” actors engaging in harmful practices. In this view, markets exercise agency, deciding with whom they wish to be sociable.

Riemann also imbues markets with agency in describing his reaction to receiving a full set of

Centurion armour. This gift seemed very expensive when he was a new player:

Riemann: the Centurion set was a huge surprise, but looking back, i make that amount of gil in a few days if the market is behaving

SR: ah, what do you mean by “the market behaving”?

Riemann: people not undercutting by insane amounts, supply being adequate but in excess of demand, and a healthy influx of new players, specifically for what i sell

For Riemann markets “behave” correctly when sellers avoid damaging market practices. Thus markets can not behave well when economic actors do not behave themselves. From Riemann's perspective, which reflects the views of a wide range of interviewees, markets in FFXI are vulnerable, subject to volatility. This natural tendency can be controlled if players work together, making economic stability a collective project for which everyone is, in some small way, responsible.

Implicit in Riemann's view, and in nearly every interview, is a strong sense of personal responsibility for maintaining a particular vision of a moral universe. Players place themselves, or actors like themselves, at the heart of market function and malfunction. Lay theorists from FFXI envision a variety of market spaces, actors and agencies, but at the very core of these models and conceptualisations is individual agency, but not a methodological individualism. No adventurer is an island in Vana'diel. As with value, exchange and even money, players frame markets and market activities in terms that are inescapably collective, or at least in terms of long-term economic stability for everyone – even if that “everyone” does not include “illegitimate” actors like Real Money Traders.

Market Irrelevance and Ordering Consumption in SL

What Second Life offers for a study of markets is found not in respondents' accounts or comments, but in omissions and exceptions. Though shopping is the most popular, and perhaps important,

activity on the grid, residents argued that markets are irrelevant to economic life. Unlike players of FFXI – who negotiate and argue about what markets might be, how actors should behave, and what practices create or destroy economic stability – for residents, markets are not open to debate. Though some users are engaged in long-standing discussions about the knock-on economic effects of “malicious” scripts or attempted regulation by Linden Lab, I did not encounter any in participant observation, interviewing or in reading Second Life's blogosphere, who were interested in reflexive consideration of what market-related economic categories or ideas might be. Instead, residents begin from a position where such economic categories are immutable facts. A handful of interviewees identified real estate as an exception to this informal rule of market irrelevance. Though most were unable to articulate why this is the case, two interviewees – IntLibber Brautigan and Aurora, both land owners – explained that real estate sales are exceptional because they are centralised and slightly better organised.

When asked about markets, Ms. Bunneh was flabbergasted that they might figure in an account of Second Life's economy:

It doesn't work in the same way. How could it? There's demand, but there's a limitless supply.

Ms. Bunneh's response, representative of nearly all respondents, is premised on a very narrow definition of a market, that of a price-making mechanism. This was the default characterisation of markets for residents, which is curious because their experiences of economic life on the grid offer other practices and possibilities for conceptualisation. In SL supplies of goods are boundless. Once an object has been created, endless copies can be produced from the original. As a skilled builder, Ms. Bunneh is aware that there will never be any production or resource scarcities to impinge upon

the supply of her goods, yet she still relies on these concepts to think through economic value and exchange, as described in previous chapters. Given these conditions, and the extent to which users themselves are charged with creating the material world of Second Life, I expected to hear new and innovative ideas about markets and the distribution of goods, but residents only offered a rejection of market relevance. What is most interesting is not that respondents believed markets were irrelevant, but that they continued to cling to a framing, identified as useless, of an economic category deemed obsolete in this setting. Despite their definition of markets as price-mechanisms, and categorical rejection of the concept, respondents continued to rely on ideas of supply and demand to explain how goods circulate on the grid, instead of imagining different, more useful ideas.

Eri Yume agrees with Ms. Bunneh that markets are not a useful way to think about economic activity in SL, but she also makes use of supply and demand in explaining how things circulate on the grid. From Eri's point of view, it is not the ordinary generation of new copies when items are purchased or exchanged that could cause supply problems, but the existence of malicious scripts like the CopyBot.

The ability to copy any item you create, and the whole copy bot issue does sort of make things in sl a bit different. . . the whole effect of people being able to take anything they wanted from vendors with the copy bot, a sort of endless supply, and how they were predicting that it might ruin a good chunk of the sl economy. But fortunatly that hasn't come to pass.

Eri may be relieved, but many high profile content creators in SL are not convinced that the CopyBot is harmless. An ongoing campaign lead by high profile business owners in Second Life, argues that content theft "steals the clothes off our backs". Stroker Serpentine, one of the

campaign leaders, does not discount scripts like the CopyBot and describes intellectual property theft as a “normal”, but unacceptable, part of competitive industries for companies in everyday life and virtual worlds. Copying and malicious scripts seem analogous to FFXI players' debates about dangerous market practices, but these issues are not widely discussed topics for residents.



An intellectual property awareness campaign poster, one of a series depicting SL entrepreneurs' nude avatars. This poster features Stroker Serpentine.

Mangas also argues that over-supply makes markets irrelevant to analysis of SL's economy, though he emphasises different factors:

i think for most things, supply is higher than demand. again, about couches, how many ppl are selling couches, you think? every builder can build one, easely waaaay to much couches. not enough ppl to buy them but, then again this dog. i believe it's 1 of a kind. i've never found a dog that does the same as this one. only that creator. so he can charge a little more (and he deserves it by the way), but most items in SL are like the couch example and i'm sure a good builder and good scripter, can recreate this dog, but it'll take lots of time and great skills

Mangas is not a producer of goods like Ms. Bunneh. From his point of view, supply is only excessive for cheaply made, simple goods, precisely because there are far too many people making such commodities. Ayu agrees: “there isn[']t enough customers!” For these lay theorists, markets are defined as price-mechanisms, but this definition is deemed inadequate for analysis of economic life in SL. Yet the concepts underpinning this model are explicit elements of their attempts to describe how objects circulate. Rather than taking market irrelevance as a starting

point for developing new ideas, residents doggedly continue to apply the same conceptual tools in their explanations, which suggests that in some contexts the power of neo-liberal economic discourses is strong enough to make conflicting evidence in one's own economic practices invisible.

Both entrepreneurs and consumption-oriented residents conceived of markets as mechanisms for allocating goods, occurring through price variations that arise from the interaction of supply and demand. This flat economic definition was repeatedly offered and then rejected as irrelevant to the experience of living a Second Life. For respondents, markets were identified as formal institutions: organised, centralised and regulated. Given the state of commodities in SL's economy – idiosyncratic and incomparable, often copiable, rather unregulated and geographically dispersed – residents' rejection of this particular framing of markets makes some sense. Shops selling curious combinations of incomparable goods haphazardly spread willy-nilly on the grid may be the dominant experience of commerce in SL, and an activity that respondents do not frame as market-related, but it is not the only one. Many residents also use sites like XStreet SL (now SL Marketplace), OnRez or Dutch Exchange, which display goods from many SL entrepreneurs, to research shopping possibilities and commodities. However, these sites are more like catalogue shopping than Monitor or FFXIAH. Interviewees described using these sites for shopping inspiration rather than actual purchases.

Shopping as a leisure and social activity does not align well with residents' strict views of markets. In Second Life, shopping is not understood as an economic activity, which is not altogether surprising given the perspectives of petty entrepreneurs featured in previous chapters who

emphasised sociability, community involvement and social rather than pecuniary benefits of business ownership. Entrepreneurship and consumption are social activities in Second Life, not necessarily economic ones. This is not the shopping and consumption as gratuitous excess of Bataille (1988) or Baudrillard ([1970]1999; [1972]1981) – despite the incredible glut of endlessly proliferating things on the grid – but resembles Slater's (1997:8) description of consumer culture as “continuous self-creation” and Miller's (1997; 1998; 2008) accounts of shopping as a means of creating and sustaining social relations. For residents, markets are faceless mechanisms, economic black boxes, a view that is incompatible with highly social and engaging processes of picking out a new hair style or shopping-talk.

Respondents did discuss difficulties finding desired objects, or buying something even though it was over-priced out of laziness. “I don't want to teleport around for three hours just to find something for a cheaper price,” explained Pokey. Adam Lee agrees:

Adam: i bought a hug ring that cost quite a bit more than i felt it was worth, i think it ran about 1200

SR: Why was the price more than it was worth?

Adam: it's a one prim item with relatively simple scripting, but hard to find so i paid the price. Most anything you want or need can be found either cheap or free if you look hard and long enough. So paying a lot is sometimes hard to justify. i REALLY wanted the hug ring though so i didn't look to long after i found this one. I just bought it

For Adam, this ring was overpriced, but he did not want to waste more time window shopping. Yet, like FFXI gamers discussing arbitrage and temporary monopsony, these issues were not explained by Adam, Pokey or other residents as problems of information asymmetry. Instead, they spoke about not wanting to wait, about the momentary joy of acquisition, which very much reflects what exchange reproduces in SL: sociability and pleasures of accumulation.

However, the impatience and inconvenience that residents associate with shopping is often presented as a problem with the SL viewer's search utility. Like FFXI players who identified FFXIAH as a "fix" for the "broken" Auction Houses of FFXI, residents like Pixeleen Mistral, Editrix of the Second Life Herald, note that external marketplaces like OnRez or Dutch Exchange offer a viable alternative to the SL viewer's shoddy search tools:

SR: Do you ever use SLEx or OnRez?

Pixeleen: sometimes. they have better search than SL, plus you can buy things from R[eal] L[ife] work where you might not be able to run SL

Interviewees spoke of external marketplaces like SL Exchange (SLEx) or OnRez as improvements or enhancements to consumption. Being able to keep shopping for virtual goods even when she cannot log in extends Pixeleen's consumption opportunities, and allows her to stay engaged with SL even when logged out, but it also allows her to impose order on her shopping experiences, to assemble bundles of comparable goods and examine them together – which would not be possible in SL because shops are scattered across the grid.

Good search functionality was an important factor for Mangas, but he also emphasised that external marketplaces allow him to look for individual items, rather than just shops, unlike Second Life's search engine.

i can spend hours inworld looking for what i need. on sl exchange, i can get a list of all the items matching my description and i don't have to spend hours tp'ing [teleporting] from 1 shop to another

SLEx and similar sites solve the problem of poor search facilities and extensive travel time. For residents shopping for a specific item, SL presents itself as a gargantuan bazaar with millions of tiny shops of variable permanence and stability spread over an unfathomably large geographic area. Information about where products can be found and relative quality is hard to acquire.

XStreet SL, SL Marketplace and other sites serve as a Reader's Digest version of consumption possibilities, condensing a vast constellation of commodities into a comparatively small selection from which consumers may search for items of interest. Yet despite the centralisation and organisation offered by external SL marketplaces, these sites are not understood as markets, because shopping and window-gazing are not framed as "serious", market-related economic activity by residents.

A small number of land-owning interviewees identified real estate as an exception to the rule of market irrelevance. In explaining why some of her outfits and avatars are particularly expensive, Aurora also offers a distinction between real estate and other SL commodities that dovetails with the arguments of Eri, Mangas and Ms. Bunneh.

Aurora: land is a matter of [of] supply and demand. you buy what you can afford, and hope to sell it for a profit, it works in rl that way. i wont pay more than i think it is worth, but will pay a fortune for a good spot where many people go. feet = money, again simple supply and demand

Land is distinct for Aurora because it is subject to "supply and demand". Unlike SL commodities which are generated endlessly as consumers make purchases, land must be created by Linden Lab. Tammy Ann, a transient resident, points out another distinction between real estate and other commodities: "they [Linden Lab] control the 'value' so its always LL who make money". For Tammy, land is distinct because someone, Linden Lab in this case, regulates its value. Supply is only relevant in this view when someone, or something, controls it. Implicit in these lay theories which distinguish real estate as a market because of a particular relationship between supply, demand and price, is a belief that markets are characterised by uneven power relations as well as centralisation and organisation.

Real estate in SL seems poorly organised from an outsider's perspective, with a baffling array of sellers, including Linden Lab, and places to buy. Yet for residents, real estate seems very organised, centralised and regulated. Rather than being spread across the entire grid, land can be purchased from Linden Lab directly, in their Land Store; from SL Marketplace, accessible after logging in to the Second Life website; or from a special tab, Land Sales, in the SL viewer. The structure of land sales reproduces the economically and socially stratified reality of Second Life, with Linden Lab at the top, followed by a very small number of large business owners, then a lower strata of petty entrepreneurs hovering above a tremendous mass of transient users.

Linden Lab specialises in selling newly minted islands, and they also charge all land owners monthly fees. Their land sales are highly visible in-world – appearing in a special featured section of the Land Sales tab as well as being immediately accessible through a link to the Land Store from the top page of the SL website. Below Linden Lab, economically and in terms of sales visibility, are land barons, owners of multiple regions that are subdivided and then re-sold or rented to smaller landlords or leasehold tenants. Land barons receive weekly payments from leaseholders or renters, and pay monthly tier fees to Linden Lab. Their rentals and virtual leaseholds can be listed for a fee on SL Marketplace and in the Land Sales tab. Smaller landlords, who may rent parcels from land barons which they subdivide further, operate in the same way as their larger counterparts: collecting weekly payments from tenants and paying tier to Linden Lab or a bigger land baron. However, smaller landlords usually do not make enough money to promote their rentals on SL Marketplace, whose listings include large, colourful photographs, and are limited to the less descriptive, and incredibly crowded, Land Sales search listings. Gerry, who occasionally rents apartments with weekly leases prefers to buy through SL Marketplace, because “SL

Marketplace has bigger pics n more info”. Clive, who rented an apartment then forgot its location, explained that “its super ez [easy] [to rent] w/land sales ads”.

Implicit in some residents' framing of real estate as a “proper” market is an acceptance of economic institutions that reflect and reproduce social stratification. This social stratification is more complex than a simple pyramid with Linden Lab at the apex followed by land owners arranged in descending order according to their holdings. Some residents who do not own land, but trade it with run scripted real estate arbitrage bots, position themselves near the top of this hierarchy because of their techno-economic knowledge about land sales. In this view, it is technical expertise that performs the economy of real estate in SL, not designers' decisions or economic theorising. Two residents who call themselves the Super Babenco Brothers provide a clear example of this rhetoric in a blog post entitled, “Can't fix stupid”:

To list a parcel of land for sale for the public (including landbots) to see in the public search directory takes a minimum of 8 mouse clicks and for you to type in an actual number (price) to sell your land for. Throughout this process the screen is very concise about the process. The defaults are set in such a way that you have to specifically input information to sell a parcel of land at an incorrect price. In addition to the words (which in most cases) are translated to the native language of the person, there are visual cues, calculations which show the price/per sq.m of land, and lastly, the final ‘prompt’ has all of this information together giving you one last chance to cancel the sale before it is listed. The land sales interface borders on cumbersome for anyone selling more than a few parcels. So to make a mistake you really have to be acting quite careless with your assets and I am not sure how Linden Labs could have made it more difficult to make a mistake. . . So in essence – its not the bots, its not the technology – its the people. Both us as landbot operators and those that through 7 clicks of prompting can't take the time to read the screen.³⁷

From the Super Babenco Brothers' perspective, sellers who list land for less than the right price “can't take the time to read the screen”. The economic failure of such persons is entirely the result

³⁷ <http://landbot.wordpress.com/2007/11/13/cant-fix-stupid/>

of “careless” behaviour, or lack of technical skill.

The Super Babenco Brothes place individual actors at the heart of market operation, as do FFXI lay theorists, but instead of multiple markets in which bad or good *decisions* influencing economic stability, they perceive a market with smart or “stupid” *people*. For residents like the Super Babenco Brothers there is no distinction between actions and individuals. Those who have mastered the techno-economic world of SL real estate are not behaving unfairly, but rather profiting from “stupid” others. Rather than seeing a behaviour, an accident, a mistake, or a bad decision – like FFXI players do when describing undercutting, camping the AH or giving an undercutter their just deserts – the Super Babenco Brothers, and a number of residents with similar views, see stupid people, inadequate actors, unskilled users. These dichotomous, black-and-white conceptualisations are not unique to land bot owners. Though the overwhelming majority of interviewees were unaware of land bots, of the small number who were interested, their comments on the subject were usually limited to “land bots are bad” or “land bots are good”. In this view, it is sufficient to label an avatar or an economic actor as “good” or “bad” rather than considering economic practices and behaviours. From this perspective, market activities do not consist of practices and behaviours, simply “bad” people and “good” people.

For the Super Babenco Brothers and other land bot owners living a good Second Life is about flipping real estate, making profits with a nifty script. This brings them into conflict with those who have other aims, but end up having to sell land because other mechanisms for transferring and sharing land are too difficult or poorly documented. Amy Blazer, a commenter on the Super Babenco Brothers' blog, provides one such example:

I set a spot of land for sale to specific person who then was not able to upgrade his tier level to buy the land. it was late and like an idiot I took his name off before changing the price first. Sure enough it seemed like before I even confirmed the Celene Ballinger bot came and stole it right under my nose. I sent a couple of polite note cards as instructed explaining what happened and never did get a response. The next day, my land was for sale by someone else.

I ask others to join in my nightly prayer that a devastating illness befalls the real life person behind the Celene Ballinger account.

Implicit in Amy's view is a strong negative reaction to the winners and losers, zero-sum game of the Super Babenco Brothers. She describes her land as "stolen". Rather than seeing herself as a user whose "stupid[ity]" cannot be "fixed", or a victim of fraudulent or unacceptable market practices, Amy sees herself as a victim of a manipulative, unscrupulous person. Economic issues are framed in terms of "good" and "bad" people, victims and victimisers. Amy's anger is directed toward "the person behind the Celene Ballinger account", not a practice or SL software design that enables or fails to constrain land bots.

However, not everyone has a negative view of script-enabled arbitrage. Aurora and Intlilber, among the few residents knowledgable about these issues, actually suggested that land bots, which have been created for market manipulation, can be manipulated themselves. Aurora suggests bots serve a valuable purpose for landlords. She sees them as an easy way to reduce her tier fees near the end of the month.

i use them [land bots] often to make a quick cheap sale. if i want to remove a piece of land from my "ownership" fast, i drop the price in increments of 200, till the bot snatches it up. marvelous things if you want to sell fast. i may need to lower my tier for a month or 2 or move my house, or whatever reason, bots are my buddies, sure i lose a bit, but a few thousand is of no concern to me in that event.

If she has acquired more land than she wants to pay tier for, a land bot can be trusted to take it

away. As long as she is able to use land bots' buying conditions to her advantage, they are acceptable. From another perspective, it seems as though Aurora is using land bots to "game the system". In this view, land bots are an automated waste removal system, almost like a public service for a particular strata of SL's virtual society.

Intlibber Brautigan also believes that land bots and speculation in real estate are useful. From his point of view, use of land bots is a reasonable response to poor economic management by Linden Lab.

well landbots exist because of another L[inden] L[ab] shortcoming. LL publishes its average land price which is quite false because it fails to account for parcels paid for inworld for 0 L\$ by actually paid via paypal which accounts for a lot of estate land and rental transfers are counted as 0L\$ sales and not rentals. so that causes a lot of downward distortion. the real market averages are at least 2 L\$ per square meter over the published average the public at large doesnt know that. so when they sell, and they need the money, they sell at or below the published average, which means ripe pickings for bots to buy and resell within a few weeks for 25% higher prices

From Intlibber's perspective, land bots work to correct an inaccurate price floor created by Linden Lab's allegedly misleading figures. In this view, land bots and their owners are economic heroes.

Implicit in IntLibber and Aurora's comments is the extent to which in-world collation and centralisation of land sales creates conditions in which land bots can function. For these residents, organisation and centralisation are identified as distinguishing features of real estate sales that make this particular economic sphere a market.

Markets, People and Practices

Lay theorists offer both familiar and strange approaches to markets. The market models of FFXI players are built upon conceptually-rich foundations, a sophisticated approach to economic

theorising that proceeds from practice to unabstracted theory. This is grounded theory in action. Alongside these models, players also have more impressionistic images of markets as life-forms and spaces. Participants from FFXI and SL present rather different accounts of markets, but a common thread in both sites is the central role of economic actors. In FFXI, this takes the form of an emphasis on individual agency, responsible practice and the importance of collective economic well-being, while in SL, the stress is simply on “bad” versus “good” people. Morality is also a theme in both sites, paired with notions of economic responsibility in FFXI and judgements of people in SL.

Players provided sophisticated models of markets and economic practice built upon implicit, shared knowledge and thoughtful engagement with practices. These accounts are presented as elements of a much larger economy that includes not only small sets of comparable objects, but also production techniques, item generation, software constraints and ideas about human reasoning and behaviour. For these lay theorists, markets are at once precise and fluid. A well-understood repertoire of practices combined with the ease with which players assemble comparable bundles of goods help create a shared and clear, but often tacit, framing of what is being discussed. The materials and behaviours players identify – undercutting in the Auction House brings to mind Real Money Trading and camping the AH; or Scorpion Harnesses, which evoke newly affordable, previously luxurious, equipment – constitute the boundaries of a given market environment. Yet markets so constructed are also temporary analytic devices, at any time ready for expansion or dissolution as players move on to discuss different commodities or activities.

For players, markets are an open question, there is no single definition, no single market, but rather shifting boundaries depending on what groups of commodities are being considered, and what kinds of practices are involved. This ad hoc assembly of contingent markets is similar to respondents' economic valuation strategies, in which bundles of similar goods are compared and contrasted. These similar practices provide a different conceptual and practical link between markets and value than the usual role of markets as price-determining mechanisms. Rather than a black box that takes supply and demand as input and produces price as its output – a relationship between markets and price based on a hypothetical link – lay theorists offer a more easily observable and tangible explanation: use of the same practices.

Market abstractions were distractions for FFXI interviewees, whose accounts required contexts of practice and material goods. This juxtaposition of empirical groundedness and fluidity in lay theories suggests a possible response to critiques of markets as a “hollow core” (Lie, 1997) of economics and economic sociology. Over-abstraction and an insufficient emphasis on market pluralities which characterise academic conceptualisations of markets can be addressed, at least in economic sociology, with further examination of what ordinary people actually do and how those doings create and sustain multiple theoretical conceptualisations of economic life. Players offer innovative and sophisticated practice-based conceptualisations that they manipulate and apply for predictive and explanatory purposes in ways very similar to academics using scholarly theories. Respondents also have impressionistic views of markets as spaces and life-forms which seem difficult to reconcile with practice-based models. However, these views of markets as imbued with agency are not necessarily explanatory, they are often descriptive. Like journalists trying to collapse complex economic information into a thirty-second sound-byte, respondents relied on

anthropomorphic descriptions to gloss over detailed accounts. Sometimes market life-forms are mere products of a desire for rapid communication, but such descriptions also highlight the extent to which non-human actors are deeply embedded in economic life, from algorithmic trading software and botting in virtual worlds to automated delivery and production systems used for just-in-time supply in Japanese convenience stores.

In this chapter, FFXI have presented more complex conceptualisations of markets, and in comparison, residents' accounts seem underdeveloped. Yet in both sites morality and the centrality of individual actors was important. In fact, SL residents' thin conceptualisations of economic life across all four categories in this research is partly attributable to a highly personalised approach that focuses on labelling people rather than considering ideas, concepts or practices. Whereas players of FFXI see a problematic behaviour, a design flaw or a bad decision, residents see only a “bad” person. For SL residents, markets are “serious” activity, rendering pleasurable practices like shopping or renting land – which might be framed as market activities – outside the sphere of “serious markets”. As with boundaries between First and Second Lives, residents separated fun and serious things, with markets firmly in the “serious” category. The most curious findings of this chapter is that participants in a user-created world, with the ostensible freedom to re-shape economic life as they see fit, cling to concepts they describe as irrelevant, unable to break with an orthodox economic framing of markets, while those in a highly-regulated and constrained environment with an economy more carefully regulated and designed than any Soviet Five Year Plan vociferously argue about markets and practices, and have (perhaps inadvertently) re-engineered their economic landscape through playful engagement, data mining and collective action.

Chapter VIII – Conclusion

The title of this dissertation is *Everyday Economists*, but lay theorists are rather unrecognisable from the view of economic theory – a small irony as the discipline purports to represent the thinking of a quintessential “man on the street”. Lay theorists in this research are certainly not participating in Callon's (1998) economic vision in which “we” are all economists now. Respondents' framings of economic life sometimes diverge widely from the expectations of economic anthropology and sociology, particularly in discussions of money and markets. When lay theorists' conceptualisations have parallels in economic sociology, economics or anthropology – as with economic value and exchange – their academic counterparts are not the most influential or popular interlocutors. Yet lay theories offer glimpses into other ways of thinking about key categories in economic life, other ways of doing capitalism. This chapter brings us full circle, back to the question with which we began: what is to be learned from lay theories? More pertinently phrased: given the economic crises that occurred during this project's field work and after, how can we, as economic scholars with various disciplinary allegiances, re-align our analytical tools to better reflect a polyphonic, heteroglossic view of economic life that includes multiple capitalisms, markets, monies and framings of valuation and exchange. Answers to this question are wide-ranging, but must begin with an assessment of core findings related to the four conceptual categories: exchange, value, money and markets. Respondents' lay theories developed in virtual worlds have extensions in some everyday practices, suggest alternative approaches, and shed light on some urgent research problems. As these categories were chosen because they provide a coherent conceptual unit that was sufficient, for respondents' purposes, to construct working models of economic life, there is a second question: what do these findings as a whole suggest about economic lives and

how economies are understood by respondents?

As findings about each concept can be extended with academic theories, there are also extensions to be made by piecing together lay theories of the four categories into a partial view of economic life. My goal is to bring contradictions within and between sites into sharp relief, to show what can be produced or generated when these somewhat artificially distinct categories – exchange value, money and markets – and respondents' accounts of them, are extended (Strathern1991:38) into one another and into everyday life. Finally, equipped with these findings and some sense of their context with respect to everyday practices in Western consumer societies, this dialogue between academic approaches and lay theories of economic life must reach some temporary pause, a point where we may weigh up what has been learned and what is to be done.

Extending Lay Theories: Recapitulation and Variations on Themes

We can view respondents' lay theories as challenges to academic accounts of economic life, or we can see these ideas as fascinating points of departure for new approaches and framings. Though at times it may seem that the former was advocated in this dissertation, the latter is a far more intellectually promising framing, and the one I have tried to promote, emphasising dialogue rather than confrontation or correction. Other economic sociologies are possible, and some of them could begin from respondents' accounts of value, exchange, money and markets. Participants' conceptualisations of value and exchange suggest that reconfigurations of these categories leads to different formulations of consumption and ways of doing capitalism. Second Life residents' contention that markets are not a central feature of economies opens up possibilities for new ways

of thinking through economic organisation, supported by FFXI players' assertions that monies lie at the heart of contemporary economies, not markets. Lay conceptualisations of money offer much scope for expansion and innovation with their focus on how monies shape and build an economy, especially how monies create and connect ring-fenced spheres of exchange and consumption. Though respondents had much to say, there are a few central ideas that emerge from each category that are especially important in building up a bigger picture of lay approaches to economic life.

Value: Production, Bricolage and Parallel Assemblages

In lay theories of economic value, we can distil one core axiom from several themes: economic value does not arise in isolation. Players of FFXI use information about an object's qualities and its provenance to generate *ad hoc* bundles of goods with similar qualities that are then compared to the object whose value must be assessed. Such bundles are not so much "regimes of value" (Appadurai, 1988:1) as a cobbling together of valuation assemblages, multiple shifting frames of reference, often held in parallel – of which economic value is only one – that draw upon a range of knowledges. Lay theories emphasised the situated, contingent nature of economic valuation, but not in ways that conform to what Hoch and Loewenstein (1991:493) call "time-inconsistent preferences" or choices that reflect momentary urges rather than long-term considerations – a stereotypical trope of consumer society. Instead of a calculating *homo economicus* or hedonistic *homo voluptarius*, respondents' theories of economic valuation involve on-going juggling and negotiating of various knowledges.

Respondents' emphasis on labour and production in theorising economic value finds common

ground with Marx's ([1867]1906:44-45,70) labour theory of value, which is both surprising and familiar given the preponderance of organic vegetables and Fair Trade foods in grocery stores. Final Fantasy XI players determine the economic value of things by considering an object's production requirements and the difficulty of acquiring resources used to produce it. Players also use this information to generate ad hoc bundles of comparable goods which are then compared to the object whose value they wish to assess. These bundles are complex assemblages of knowledge, material goods, consumption aspirations, judgements about qualities (statistical bonuses and enhancements) and personal taste, whose boundaries and limits are implicit yet immediately understood by other players. Creation and dissolution of bundles of goods for economic valuation closely resembles players' market model making and disassembly, where a given market is tacitly framed by a speaker's choice of goods or examples.

Residents of SL also talk about production techniques, but their accounts of how goods are made emphasise a mystique of production rather than detailed analysis of techniques and materials. Production skills a resident does not possess or understand are accorded greater value than those they understand well. Mysterious qualities are valued, unlike in FFXI where great emphasis is placed on knowing, or discovering in the case of equipment with hidden effects, all the properties of commodities. Residents show appreciation for others' skilled work without having to concern themselves with how that work is accomplished, a phenomenon familiar to anyone who has hosted a dinner party for guests whose idea of cooking is boiling an egg. Appreciation for the quality of labour without understanding how it was accomplished is a familiar situation in economic life. In clothing stores, electronics shops and handicrafts markets most economic actors make decisions

about what is “good” or looks like “quality work” without being able to use a sewing machine, soldering iron or other tools. This is not necessarily an issue of information asymmetry. What residents discuss as skill or craftsmanship is sometimes a different language for exploring aesthetic qualities, or explaining taste or consumption choices. Whereas FFXI players use production techniques and material components, in conjunction with the object's labelled properties, to assess its value in relation to other commodities they deem similar, residents' strategies are more closely related to shopping talk than political economy. Shopping talk in Second Life is not trivial. It is a central form of sociability and a means of demonstrating taste and knowledge. In SL shopping is often done with friends, or when residents shop alone their purchases are soon displayed for peer appraisal. Confirmation of a shopper's judgement that a certain hairstyle or pair of shoes was particularly well-made or appealing constitutes a confirmation of economic value, as friends' opinions support or question a resident's aesthetic and economic judgements. Peer approval also reinforces particular consumption choices and ways of doing SL as appropriate, questionable or “incorrect”. Though Second Life shopping talk it is based on a different approach to production than the valuating processes of FFXI players, it is no less a collective process of valuing things and qualities.

In both field sites value is produced through debate and negotiation. Gamers post on forums and fan sites about new equipment, they debate the merits of one cape over another in linkshell chat. Though there is no cast-iron consensus on what is the absolute best gear for a given job, there are widely agreed upon baselines for standard equipment combinations and secondary substitutes if the most desirable items are beyond a player's grasp. Economic valuation in SL and FFXI is not

consistent with hedonistic images of consumption, in which valuation is strongly influenced by desire. Though desire is a factor in SL, its importance is partly linked to the incomparability of goods on the grid which are geographically dispersed and extraordinarily diverse. Instead, respondents' accounts suggest a slower process of building up connections between things, people and qualities of objects, of assembling and disassembling economic models of goods, concepts and valuations. Similar strategies in both worlds – FFXI enables these framings while conditions in SL constrain them – suggest that these findings are not research setting artefacts.

Finally, long-term players of FFXI also emphasised the importance of non-circulating objects in assessments of economic value. Rare and exclusive items – standing in their own ring-fenced spheres of exchange and consumption if they are purchased with token monies, or as independent objects, if they are earned by defeating monsters – resemble black holes that warp the fabric of economic valuation in an economy. Players' accounts of these objects raise questions about other unique objects in the everyday world that distort or resist attempts to construct groups of goods for economic valuation. Enormous scientific instruments like the Large Hadron Collider, Hubble telescope or HECToR super computers are objects that resist valuation, they have a measurable cost – many countries contributed funds for their construction, and continue to provide money for use and maintenance costs – but the value of these objects is difficult to assess. These valuation problems are not exactly because of their size or scale, but because the very existence of these projects changes terms of valuation for other scientific installations and instruments. Research institutions that would have previously considered a range of cost and size options in deciding whether to build their own observatories, particle accelerators or super computing facilities re-

frame this exercise in economic valuation as a choice between joining or not joining an enormous international research project. What was previously a broad scale of economic valuation is compressed and distorted by the existence of these facilities to a dichotomy. Fine art valuation presents similar distorting objects and influences (Velthuis, 2003; Smith, 1989).

There has been extensive study of human-scale objects whose valuation is problematic.

Commodification and regulation of bio-medical objects such as human embryos (Frankin and Roberts, 2006), tissue and organs (Lock, 2002; Sharp, 2000) is a burgeoning area of investigation for anthropologists and sociologists. Yet larger assemblages like HECToR or the Hubble – that are neither public goods nor private property – are left as backdrops for studies of scientific cultures or laboratory life (Latour and Woolgar, 1979). The parallels between respondents' accounts of value-warping, inalienable things and enormous scientific instruments offer intriguing possibilities for economic sociology contributions to the growing field of science and technology studies (STS). Some economic sociologists have already turned to Actor-Network-Theory methods for studying transnational markets (Knorr Cetina, 2005; Knorr Cetina and Bruegger, 2002a, 2002b, 2002c, 2005; Aspers, 2007, 2008; MacKenzie et al., 2007; MacKenzie, 2006; Callon et al., 2007). Though an economic sociology of inalienable things and economic valuation need not confine itself to satellites, observatories and super computers, they are certainly intriguing places to start.

Exchange: Materialities, Sustainability and Finitude

Lay theories of exchange provide four key ideas: exchange as reproduction (Weiner, 1980) rather than a search for reciprocity; Sukilli's "game karma", another version of Durkheim's ([1912] 2001:168) "moral universe"; exchange as subsistence rather than growth; and its sinister shadow,

a techno-utopian vision of perpetual, costless expansion. Respondents' reproductive approach to exchange echoes Weiner's (1980:72) analysis of Trobriand exchange practices and reproduction, work that is not generally applied to contemporary consumer societies. Reproduction of experiences, people and capacities is more important in residents' and players' accounts of exchange than reciprocity because respondents do not conceive of reciprocity as something that must be sought out or created in individual exchanges. Instead, reciprocity is diffused through social networks for players of FFXI; it is part of a particular quasi-cosmological framing of how the virtual world of Vana'diel operates. J described a general approach of open-handedness – or open reciprocity (Graeber, 2001:220) – as normative behaviour: “it's just giving back to the community”.

For residents of SL, exchange was more likely to be framed in terms of producing, reproducing or cultivating social relations, along a continuum with openness at one end and a closed, take-whatever-you-can-get approach as the other extreme. Copying and circulating freebies enables the production of avatars constituted by certain kinds of stuff – fashion, hair styles, skins, vehicles and animals. Julie's observation that residents who do not have “hot avatars” are usually not the kind of people with whom she likes to associate is a telling remark, because it suggests that residents whose appearance is not attractive are demonstrating an inability to produce themselves through things in SL. Such people, who cannot build up relationships with things, are not people with whom Julie believes she could have a relationship. Miller (2010:87) argues along the same lines, suggesting that people who have problems cultivating relationships with objects – constituting themselves through “stuff” – have similar problems producing social ties with other human beings. This constitution of selves through relationships with things offers a view of consumption that

foregrounds consumers' agency and discernment (see also Besnier, 2004; Bourdieu, 1977) rather than identities, symbols and signs (Baudrillard, [1970]1999; Campbell, 1987).

Finally, Second Life provides two images of capitalist exchange between which there seems to be little middle ground. The first view emphasises subsistence, social and economic continuity and the role of businesses in creating and maintaining social relations for proprietors and employees.

Espoused by petty entrepreneurs in Second Life, this perspective seems at first a result of design factors in SL. Yet a subsistence-oriented, rather than a profit- or growth-oriented approach is not necessarily an accidental outcome of a virtual world whose residents need no food, water, health care or shelter. Jackson (2009), inspired by Schumacher (1973) and supported by the work of think tanks such as the New Economics Foundation (2010), has argued that a new no-growth/low-growth mode of capitalism is a necessary solution for life on a planet with finite resources.

Subsistence-oriented approaches of petty entrepreneurs may arise partly from fortuitous circumstance in SL, but further study of such business owners may shed light on alternative formulations of sustainable capitalism. If virtual worlds provide settings where such models are normative – as is the case with small and mid-sized businesses in SL – then there is potential in such sites for innovative economic sociology research that could make significant contributions to new low-growth/no-growth economic configurations, capitalist and otherwise.

The second view takes as its starting point a no-cost, low capital vision of an economy consisting of services and intellectual innovations. In this imagined economy of clean hands, commodities emerge from ideas rather than from materials and physical labour. This perspective reflects both

the “information economy” and a deceptive “greening” of economies in the global north, in which Western consumer societies have largely taken over the ecologically “cleaner” and highly skilled stages of producing and designing commodities, outsourcing dirty, polluting unskilled or low-skilled work of resource extraction or cultivation and processing of raw materials to countries of the global south (Sachs and Santarius, 2007:55-58). Resource dependence and pollution have been cleverly hidden by offloading these externalities onto other people, other lands and waters, other economies. Even putting aside questions of social justice and relegation of hazardous work and pollution to the global south, there are still problems with this perspective. In this view, services and goods – particularly online services and virtual goods – take on the status of magical technologies and things that are made and disseminated with only minimal connection to human labour and natural resources. Game developers, computer programmers and other information technology workers putting in sixty to seventy hour weeks are having fun in their playful workspaces. Their labour, which produces somewhat intangible things – iPhone apps, video games and software – is transformed from a form of work that is dependent upon an enormously energy-consuming, resource-draining technological infrastructure into a kind of grown-up play. As consumers, we are assured, despite periodic protests over work hours and oppressive management – such as that of the wives and families of developers and designers at Rockstar Games’ San Diego studio (Rockstar Spouse, 2010) – that working in the information economy is not labour but pleasure. This is the transubstantiation miracle of information technology and the service economy: precarious labour (Ross, 2009; McRobbie, 2002) is transformed through responsabilization (Clarke, 2005) into empowerment.

Monies: Multiplicity, Social Boundaries and Discipline

Lay theories of money are clear on three points: money acts; money is not politically neutral; and monies are always multiple. The acts of money in FFXI seem positive, but in Second Life money acts seem less benign. Players of Final Fantasy XI argued that token monies and points systems shape economies by creating ring-fenced domains of exchange and consumption. This shaping is a role usually allocated to markets, but Lane Deer argue that token monies “chop up” an economy, and in so doing provide ways for players to earn access to further consumption through current consumption practices, alternative routes to wealth and facilitate social participation. Different monies tied to distinct purposes provide rewards or incentives for a wider range of play, or virtual lifestyles. A player with tremendous wealth in gil must still start from zero in accumulating token monies within a particular sphere of exchange and consumption.

Token monies as facilitators of social inclusion is reminiscent of arguments in research on local exchange and trading schemes (LETs) and parallel currencies (Seyfang, 2001a, 2001b, 2003; Seyfang and Pearson, 2000; Evans, 2009; North, 1999, 2005; Lee, 1996; Williams et al., 2001). For these researchers, monetary multiplicity generates social inclusion in everyday life through generating connections between people, by serving as a kind of reified memory, which Hart (2000) conceptualises as a “memory bank”. Yet lay theories of exchange suggest that such a proliferation of contextualised objects and social relations can be crippling. Human memory cannot shoulder this burden, which suggests another side of monetary personalisation, especially given the corporate-controlled nature of token monies in everyday life. In contemporary Western consumer societies, information about individual consumers is already embedded in monies, or at least collected in electronic transaction and banking records. Credit-worthiness, a critical quality for

anyone hoping to own a home or secure a major loan, is a litmus test of pecuniary virtue, an economic identity that requires management. Although access to personal credit reports is relatively easy, there are vast pools of information collected about individual economic choices that are entirely inaccessible and frequently manipulated, sold or agglomerated for analysis. These records are produced through consumers' use and generation of token monies.

This personalisation of money currently empowers transnational corporations, governments and organisations not individual economic actors. In choosing EDF Energy, buying groceries at Sainsbury's and renting a car from Hertz, all to accumulate Nectar points; or in accumulating points on a Boots Loyalty Card or Tesco Card, we accept that all our transactions will be logged and scrutinised. By participating in such token monies or points systems individual consumers become the focus of increasingly targeted advertisements – ostensibly as part of a customised service, but actually as bespoke selling campaigns. Through these schemes we not only help ourselves into a padded economic straitjacket, but assist in its construction. Yet overt transaction information collection facilitated by monetary multiplicity is only one part of this darker side of monetary personalisation. Financial surveillance, carried out by governments with the assistance of financial institutions, and justified in the name of national security (de Goede, 2007:141), is another manifestation. In an increasingly “financialized” world (Harvey, 2006:24; Martin, 2002:10-11) of transnational, digitised flows of monies and financial instruments, economic infrastructures equally facilitate monetary multiplicity, certain limited kinds of economic activity – such as the creation of new, increasingly abstract forms of financial instruments (Strange, 1986, 1998; Bryan and Rafferty, 2007) and the circulation of such investment vehicles – and surveillance. As these infrastructures

become more powerful, enabling greater volumes of transactions at higher speeds, the potential for collection, monitoring and analysis of such economic activity also increases. These issues, whose political urgency is difficult to gainsay, cannot be foregrounded without a more expansive definition of money that includes more than state-issued currency.

Other politics beyond surveillance, privacy and control are implicated in respondents' theories. In Second Life, defining money quickly becomes an exercise in exclusion, creating and maintaining boundaries of the social world, distinguishing appropriately socialised and acceptable actors from undesirable, inappropriate subjects. To advocate a particular view of the Linden dollar is to defend one's own way of doing Second Life – and the money practices it involves – as the right way of living a good virtual life. When PD says Linden Lab should “clean up the grid” and “exterminate” transient residents, he frames uses of the L\$ as a means of social differentiation, one that separates “appropriate” users from those who are merely “a waste of [virtual] space”. The closest parallel in FFXI to exclusionary money talk in Second Life is discussion of Real Money Trading. When discussing RMT, most players articulate their position in terms of fairplay; in this view, Real Money Trading allows some users to “game the system”, buying access to commodities or power that they should be earning like everyone else. Those who buy gil or goods from Real Money Traders are not adhering to the correct purposes and ways of living in the virtual world of Vana'diel.

Political dimensions of monies – their embeddedness in power structures and use of money practices as means of distinguishing appropriate subjectivities (economic and otherwise) – and monies as actors and shapers of economies provide many possibilities for money scholars.

Debates over social welfare policies – epitomised by the “Big Society” projects and benefits reductions of the Conservative-Liberal Democrat coalition – are quintessential arguments about money practices and associated rights. Such debates distinguish between persons or groups who use money “wisely” or “correctly”, thus experiencing poverty or hardship through no “fault” of their own, and persons whose money use is “incorrect” or “foolish”. When ministers or policy groups call for increased financial literacy, what is really at stake is a definition of correct money practices (Williams, 2007). This is by no means a new bourgeois disciplinary project. One of the principle projects of home economics in the latter half of the 19th century was the domestic “education” of immigrant women through settlement houses in American urban centres, which included reducing spending through adoption of “American” diets (Levenstein, 2003:100-102; 118-119). Second Life residents' framings of monies, and their parallels in everyday life, lend support to appeals for a political economy approaches in money scholarship (Fine and Lapavitsas, 2000; Lapavitsas, 2000; Bryan and Rafferty, 2007).

Markets: Resistance and Agency

Respondents described markets imbued with agency that became actors in their own right – like monies – while simultaneously conceptualising markets as spaces for economic action. The most striking finding in lay theories of markets comes from SL residents, who argued that markets are not necessarily central to the production and maintenance of an economy. These accounts are at odds with orthodox theorising in economics and economic sociology, and are profoundly interesting when articulated by people living in contemporary capitalist consumer societies suffused with neo-liberal rhetorics. When combined with FFXI players' argument that monies

mould and shape economies, SL residents' declaration of market irrelevance suggests alternative theoretical approaches to the organisation of economic life based on monies and spheres of exchange and consumption. Rather than an economy consisting of rigid, black-boxed market mechanisms, making sense of economic structures and organisation with monies and patterns of circulation offers strong empirical grounding because movements of money can be traced with data from financial institutions or accounts of money use and practice. Where money goes and how it travels also helps illustrate and conceptualise relationships between different kinds of economic institutions, communities and practices. Such an approach would also shed light on economic phenomena highlighted by FFXI participants that has been rather neglected by economic sociology, such as monetary conversions (also emphasised by Guyer 1995, 2004; and Dominguez, 1990), sites where money stops circulating and places where monies disappear, like gil sinks in FFXI, or are made to appear, like excessive leverage and fractional reserve banking.

When residents argued that markets are not central to economic life in SL, they sometimes presented a caveat: real estate. Land sales were identified as a market because they are organised and centralised. Even though real estate was not a part of most participants' experiences of SL, this counter-example was used exclusively. No respondents mentioned the LindeX or websites like SL Marketplace or OnRez. Such websites are somewhat centralised, they collate a large number of sellers for potential buyers of goods, but they are not very well organised. Shopping sites feature myriad items that are not consistently categorised. Women's clothes may be found across several categories, including Accessories and Sex Furniture, while the LindeX's organisation of buy and sell offers was confusing for many residents because of price variations

and problems understanding or calculating exchange rates. For residents, markets are sites for production and maintenance of social and economic order (Slater and Tonkiss, 2001:11). As SL markets failed to produce expected forms of order, and residents associated markets with “serious” not “fun” activities – thus shopping and virtual services fell outside the scope of activities associated with markets – it was rather difficult for respondents to argue that the concept could be important for economic life on the grid.

In Final Fantasy XI, subversive uses of economic institutions, Real Money Trading and fan-made econometric tools present problems for Callon's (1998:30) contention that economics “performs, shapes and formats the economy”. For players, economic institutions and mechanisms created by Square-Enix's game designers are not only for buying and selling goods but for playful displays and ribald humour, among other things. If economics were formatting the economies of FFXI, Giant Donkos and Galkan Sausages would not be so heavily circulated or widely displayed in Vana'diel's bazaars and Auction Houses. Many long-term players actually took a view that opposes Callon's (1998), arguing that game designers were unable to control FFXI's virtual economies. Such players identified regular cycles of inflation and deflation, small changes that magnified rather than diminished economic disadvantages, and the success of Real Money Trading as evidence that designers were unable to balance, or format, FFXI's economies. This scepticism is based on what players perceive as repeated failures to adjust or correct economic problems, and resembles questioning of economic knowledges and expertise during recent financial crises (de Grauwe, 2009; Colander et al., 2009). The success of such carnivalesque resistance (Bakhtin, [1941]1984) supports de Goede's (2005:381) analysis of resistance to globalism through non-rational means

such as festival-like protests, and suggests that more politically aware, reflexive perspectives are needed in ludic studies of video games, especially with respect to economic themes. It is not sufficient to declare that “reality is broken” and that video games will magically improve the human condition (McGonigal, 2011). This line has been repeated by video game studies (Williams et al., 2006; Taylor 2006a, 2006b; Steinkuehler and Williams, 2006; Nardi, 2010; Lehdonvirta, 2009; Chen 2009a, 2009b; Castronova et al., 2009; Castronova 2005a, 2005b) and Philip Rosedale, of Linden Lab, so often as to be banal and ridiculous. Players' engagement with economic institutions in FFXI suggests that playful resistance can sometimes be successful within modest limits, but how these changes arise and how far such findings can be extended, requires further careful study.

Players also explained that markets are fluid spaces and collections of goods whose boundaries shift according to what bundles of commodities are under consideration. Interviewees strongly objected to vague phrases such as “the market” or “market forces”, calling for greater specificity, or at least a starting point from which they could discern what commodities, activities or monies are involved. Long-term players explained how items move between markets over time, with former luxury items proliferating and shifting from circulating in what respondents identified as “high-end equipment markets” to a lower range of “standard equipment markets”. For players, markets are contingent models temporarily assembled for some intellectual or rhetorical purpose. If the model demonstrates a point successfully or helps understand a problem, then it can be set aside for later use. If not, the model is scrapped. As with economic value, markets are exercises in bricolage (Lévi-Strauss, 1985:26) assembled from toolkits containing pieces of prestige language, concepts debated on fan sites, bits of information from mass media reports, nuggets of theory from a

university or high school class, and practices from everyday life and virtual worlds, and any number of other objects-to-think-with (Turkle, 1995:48).

Finally, respondents in both sites imbued markets with a level of agency – though more so in FFXI – engaging in various forms of anthropomorphisation, as well as conceptualising markets as spaces for particular kinds of actions. In both framings, participants described markets as vulnerable and fragile, spaces where human actors must behave responsibly, causing no harm. As actors, or at least as things which seem to exercise agency, markets are frail and capricious hypochondriacs like Argan of Molière's *Malade Imaginaire*, who must be humoured and indulged. This notion of markets as exercising agency resonates with the realities of financial markets in everyday life, which are home to algorithmic trading agents that tend to behave differently than their human counterparts, as well as land bots in SL and crafting or resource extraction bots in FFXI. These non-human actors and the rigid, narrow choices they make – which, constrained by algorithms and user preferences, tend to have far less variety than human decisions – add a weird and uncanny dimension to activity in certain economic markets. When added to a human tendency to anthropomorphise complex phenomena, a tendency to imbue markets with agency by lay people and experience-based experts is almost not surprising at all.

Some Implications for Economic Sociology

When lay theorists' accounts are pieced together, they point toward areas and aspects of economic life that lie on the peripheries of academic theorising, including multiple ways of doing capitalism, unique or inalienable goods, token monies, engineered scarcities, a social imaginary of

boundless abundance and a corresponding fear of finitude. Though this tendency is most pronounced in accounts of money and markets, when conceptualisations of all four categories are assembled, everyday experiences of economic life seems quite distant from conceptualisations in economics and economic sociology. Second Life residents' economic ideas illuminate social imaginaries of boundless abundance in consumer societies and economic practices that shape social boundaries. Final Fantasy XI players' conceptualisations explore some of the hidden structural underpinnings of economic life, that is to say the twisting dark alleyways of production, circulation and distribution, and resistance (both playful and serious) against economic structures and institutions. The social things and people chosen as objects and sites of research in academic approaches to economic life may not be as central as we believe. Though there are many strands in participants' lay theories that could prove rewarding for economic sociology research, this section examines the implications of three in particular for economic sociology: multiple capitalisms; social imaginaries and realities; and resistance to economic designs.

Multiple Capitalisms

One of the big questions raised by respondents' economic theories in both sites is what multiple capitalisms mean for economic sociology. Lay theories and the diverse ways of doing and thinking through capitalism they provide are eloquent arguments in favour of cross-pollination between the financial elites-focused sphere of economic sociology and a range of work in economic anthropology, studies of material culture and cultural economy. There are more capitalisms and economic things in the world, and even in the narrow limits of Western consumer societies, than are dreamed of in the books of economic sociologists, economists and financial experts.

Economics “performs, shapes and formats the economy” (Callon, 1998:30) only insofar as an economy, and researchers' views of it, are limited by a very cramped imagination. Even in a virtual world like Second Life, whose dominant logic is that of a capitalist, consumer fantasy – endless accumulation, limitless growth and boundless wealth – there are alternative framings of capitalist enterprise.

Subsistence-oriented entrepreneurs are no less consumers than their customers: they rent virtual real estate for their shops, buy goods from competitors to keep up-to-date on style, they buy goods for private consumption, they buy Linden dollars to pay rent on low-income weeks. Yet these business owners reject notions of boundless growth and a profit-orientation. Petty entrepreneurs are hobbyists, drawn to these activities for what Shiva Gane describes as “the social perks of business”, not profits. Petty entrepreneurs do not want to lose money, but rather than thinking of their businesses in terms of expansion over time, their plans emphasise continuity, stability and subsistence. The closest parallel to such perspectives in everyday life are social enterprises. Yet these companies still have an expansion-minded mandate which is justified in the name of saving the planet or promoting social justice among other things. For example, the energy company Ecotricity operates on a not-for-profit basis, plowing all extra funds into building wind farms and solar plants. Though the company is physically and financially expanding – creating more jobs, more energy-producing facilities – their goal is not profit, but producing more renewable energy in the United Kingdom. Ecotricity is not an eccentric case. It is part of an increasingly visible motley collection of businesses operating under conditions similar to charitable trusts or voluntary organisations. Such approaches are not exactly reflections of subsistence-oriented petty

entrepreneurs in Second Life, but are examples of other modes of doing capitalism.

Alternative configurations of capitalism are evident in FFXI players' accounts as well. The overwhelmingly dominant logic of FFXI is one of production and reproduction, of gaining power and earning titles or material goods. Players' adventuring lives exist alongside an economy based on a romanticised re-creation of cottage industry. This rehabilitated version may not have cruel factors and low piece rates, but it does feature damaging eye-strain. In this virtual cottage economy, every participant is both a producer and a consumer. Even those whose characters do not have crafting skills extract resources which will be refined and used by crafters. Unlike the lone artists of production in Second Life – individuals who are ideally self-sufficient in their creativity, requiring no parts or components created by others – the production of things in Final Fantasy XI features mutual dependence across various crafts, but also amongst those with different skills and levels of competence in the same trade. No character is an economic island in Vana'diel; there can be no Robinson Crusoes. Economic interdependence is a conceptual given in economic sociology and in economics, but its consequences in academic theories are not quite reflected in the framings of FFXI players. Smith's famous quotation ([1776]1991:13) – from which there has been startlingly little deviation in the past three hundred years – makes a case for self-interest as the root of all economic motivation quite frankly.

It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.

For players, collective good rather than self-interest is a strong motivator in economic decision

making. "We're all in this economy together, so we need to make it work," Lame Deer explained long before David Cameron took similar words as a political slogan. Though players compete with one another in collecting achievements, gaining access to resources and monsters, setting faster records for completing of battlefields and innovative trash talking, discussion about economic life is non-competitive. An emphasis in FFXI's game design on group activity and co-operation seems to have bled over into players' conceptualisations of economic life as well. Rather than a cut-throat views of economic activity, most players articulate a position like Lame Deer's, in which economic stability is everyone's responsibility. From this perspective, the wider deleterious consequences of greedy or irresponsible behaviour outweigh personal benefits.

Subsistence-oriented petty entrepreneurs in SL and FFXI respondents suggest that other ways of doing capitalism are possible, or rather that they already exist. Capitalisms are multiple (Thrift, 2005:28), but this reality is not entirely reflected in economic sociology. Particularly amongst scholars following Callon (1998, 1999a, 1999b, 2007) there is an over-emphasis on one particular model: neo-classical economic theories. Respondents' theories illustrate other capitalisms within societies awash with neo-classical economic ideas and neo-liberal rhetorics. Other economic frameworks are a feature of economic anthropology, particularly in studies of post-socialist societies in transition (Verdery and Humphrey, 2004; Humphrey, 2002) and in countries on the edges of global flows of capital (Guyer, 2004, 1995), but such parallel economic thinking – capitalist and otherwise – is just as relevant to the analysis of economic life in Western consumer societies.

Social Imaginaries of Boundless Abundance versus Finite Realities

Respondents' theories also raise questions about the social imaginaries of consumer societies.

Second Life presents a strange but familiar image of boundless abundance while FFXI reconfigures a consumer economy in terms of engineered scarcity. Second Life resembles a highly stylised, aspirational version of Western consumer societies. Avatars live glamorous lifestyles filled with luxury goods and "beautiful people". Second Life and its consumer cultures offer examples in miniature of the world Western consumers, *imagine* they inhabit in everyday life, even if such imaginaries are not always linked to practices (Miller, 1998, 1997). The bottomless shopping bag of SL brings the absence of finitude in our experiences of everyday consumer societies into sharp relief. This is not a novel observation (Baudrillard, [1970]1999:36). What is interesting is not the idea's newness, but what a society of perpetual consumption, of infinite exchange and circulation, might mean for economic theories and economic sociology.

If we wish to imagine an economy with boundless expansion and consumption, there is no better example than Second Life. Ayu explained that on the grid "guns cost less than clothes", which she identified as an effect of over-supply. From Ayu's perspective, costless reproduction produces an economy where economic valuations from everyday life no longer apply, where "usual" values – guns are more expensive than clothes, for example – are overturned. Yet an economy of truly boundless production and consumption, like the one Ayu describes, *is* the imaginary life world of consumer societies. There has been a mainstreaming of luxury (Twitchell, 2002; Frank 2000) – budget supermarket chain LiDL has taken "Luxury for All" as their winter holiday slogan – but an ultra-luxury domain has also emerged, which includes the Moscow Millionaire Fair with its diamond-studded cigar bands and jewel-encrusted, gold-plated sauce pans. In this parallel world,

there is always something more luxurious, more expensive. Shortly after the Xbox 360 was released there was a fashion for 14-carat gold face plates, while gold-plated iPhones and iPods are also available. It is not sufficient to have the latest gadget, it must be covered with precious metals or adorned with precious stones, even Swarovski crystals or shiny pieces of plastic will do. The irony of these external adornments is that the internal components of electronic devices use metals and minerals that are more expensive per gram than gold. An upper limit on luxuriousness – or resource-intensiveness – is nearly impossible to fathom, it seems as though there is always something *more*.

Though on a global scale resources are limited, citizens of the Western world experience abundance as normative and scarcity as unusual. Soaring food prices, riots over shortages of cereals or exhausted aquifers appear in the mass media, but for many in the global north, necessary services and commodities are not in short supply. Baudrillard's ([1970]1999:25) description of the consumer society emphasises this very affluence:

There is all around us today a kind of fantastic conspicuousness of consumption and abundance, constituted by the multiplication of objects, services and material goods, and this represents something of a fundamental mutation in the ecology of the human species.

In the global north there is a nearly obscene cornucopia of goods, more than anyone could ever consume. A tiny news agent's kiosk contains more sugary sweets, fizzy drinks and chocolate than a classroom of school children could devour without risk of messy regurgitation and illness. Though the United Kingdom is in the midst of an economic recession, discount and cut rate shops like Primark are filled with an astounding array of commodities and shoppers who wish to acquire them, or at least try them on for size. How can scarcity or finitude be imagined under such

circumstances?

Scarcity is reduced to fear, not felt by gnawing in the belly – at least not for most in contemporary Western societies – but as titillation. The fear of not-enough, or none-at-all, is a thrill like the simulated gore and mad terrors of a horror film, which Baudrillard ([1970]1999:36) claims defines the ideology of consumer societies. Fear of scarcity becomes a form of play in “Limited Edition” goods, a marketing tactic used to sell fast food, designer fashion and everything in between. Yet finitude is the underlying reality of not just human existence, but of all living things. This fundamental problem appears abstractly in economics as a factor in markets as price setting mechanisms, while orthodox experts advise perpetual growth. Economic sociology has failed to sufficiently examine the extent to which consumer societies are built upon an unrealistic social imaginary (Smart, 2010:184). Given the everyday experiences of people in Western consumer capitalist societies – whether they are affluent and can gratify their desires, or are impoverished and can only stare longingly at things beyond their grasp – it is not surprising that scarcity is an almost alien notion, something to be scandalised or shocked about, or perhaps even to greet with derision. This is the thinking behind a person who remarks, upon reading about food shortages and price rises, that worries about food supplies are much sound and fury signifying nothing because the prices on the MacDonald's Super Saver menu have not changed in years.

While SL provides a funhouse mirror image of boundless abundance, FFXI players' accounts of economic life foreground finitude, partly because game designers' decisions make scarcity visible through item generation conditions. In game-oriented worlds, artificial scarcity is a matter of game

balance, or preventing the spread of extremely powerful items which would diminish the virtual world's challenges, and thus players' enjoyment of it. From a player's perspective, these limits can be frustrating, as evinced by players' references to items as "time sinks". Game designers' choices about item generation requirements are reminiscent of Common Agricultural Policy decisions that leave dairy producers sitting on mountains of butter and milk (Harvey, 1990:3) or super market supply contracts that produce mountains of failed fruits and vegetables dumped on fields because of their eccentric shape, colour or size (Stuart, 2009). Designers could increase supplies of powerful items, but that would create a very different world whose challenges are quickly overcome. One of the challenges in maintaining in game-oriented massively multi-player online worlds is the rapid rate at which some players "burn through" new content, quickly reaching the limits of what a virtual world offers. Upon reaching the "end" as it were, such users become bored, which raises the unpalatable possibility of cancelled subscriptions. Slowing down consumption of the virtual world and access to powerful goods ensures longer subscription periods, or more revenue.

Players' accounts of engineered scarcity call attention to supply manipulations in everyday life, particularly in transnational food systems (Harvey, 1990; Stuart, 2009; Patel, 2008). Like European Union agricultural policies and super market chains that fear negative consumer responses to aesthetically unsightly vegetables, game designers engineer scarcity to preserve a particular economic position. As with lay theories of monies, lay theories from this research suggest that manifestations of finitude and abundance, which shape the social imaginaries of consumer societies, are an area further research. Cultural studies of consumption present various

interpretations of abundance and consumption practices (Baudrillard, [1970]1999, [1972]1981, 1985; Bataille, 1988; Besnier, 2004; Miller, 1997, 1998, 2010; Slater, 1997), but there are other ways of thinking through the structures and practices of consumer societies. Final Fantasy XI players' accounts of engineered scarcity and power relations, which foreground systems of distribution and commodity production – and accounts of collective wealth in linkshells – offer departure points for alternative formulations.

Resistance, Playfulness and Carnavalesque

Virtual worlds like Final Fantasy XI are rigidly codified, and should exemplify the top-down view of Callon (1998:30) in which economists – or in this case game designers acting as economists – construct an economy. Circulation limits on items, strict limits on the number of items players can sell in their bazaars or in Auction Houses, and even limits on the amount of gil that can be traded to another play combine to create a series of hurdles, some arbitrary, others arising from hardware limitations, and some explicitly designed to counter Real Money Trading or preserve game balance. Yet players have devised their own solutions to most of these challenges. Through explicit resistance and less focused playful engagement, users have subtly reshaped the purposes and meanings of economic institutions in FFXI, often in ways that designers might not have imagined. Though players have not seized control of economic institutions or changed the game's architecture, they have formed alternative sites for economic information and transactions, like the FFXIAH website.

The work-arounds players have devised for various restrictions, from in-game solutions to the myriad uses of Final Fantasy XI Auction House and other fansites, suggest that the economic institutions created by governments – the closest analogues to designers in everyday life – are

only part of a much wider picture of economic life. This is also is not a novel observation. Economic sociologists and anthropologists have examined economic resistance in criminalised economies from urban drugs (Ruggiero and South, 1997) to prostitution (Høigård and Finsted, 1992), and other areas of the informal economy (Hart, 2000; Hart et al., 2010) such as street markets (Besnier, 2004; Bestor, 2004; Geertz, 1978). Yet these sites are presented as special cases or exceptions to a view of economic life that is centered on state-issued currencies, corporations and state institutions. However, in the experiences of lay theorists in this research, these peripheral places and activities loom large. The drug dealer and the socio-economic networks and relations that surround her are not confined to inner city districts, nor are drugs some unusual aspect of economic life. In fact, insofar as a drugs economy is an informal one, it lies at the very heart of an entire domain of economic life that is hidden in plain sight. Zelizer (1997, 2005) has presented a similar argument, in her analysis of domestic economies and use of monies. From the perspective of lay theorists, it is not banks, investment institutions or governments alone who shape economies. Moreover, participants' accounts suggest that the carnivalesque (Bakhtin [1941] 1984:7,15) challenges of playful mockery are legitimate and can produce economic change.

Yet we might be forgiven for asking whether resistance or even playful engagement are relevant to economic activity in everyday life. Whether these tactics produce change or not, some citizens of Western consumer societies do engage in economic resistance, play and attempted re-shapings that resemble the bottom-up reformulation achieved by players of FFXI. From the anti-consumerist International Buy Nothing Day, when millions of people around the world close their wallets and put away their plastic for twenty-four hours, to the comic hilarity of Carrot Panic Buying Event, a

Facebook-organised caper that saw thousands of people rushing to grocery stores to buy as many carrots as possible on the same day, many ordinary people engage in forms of economic activity that are intended, at least, to create certain economic effects, both temporary and long-term. Lay theorists in this project call attention to these activities, suggesting that these behaviours are not peripheral one-off eccentricities. Carrot Panic Buying Event might be funny, but Bakhtin ([1941] 1984) has cogently argued that humour, the grotesque and carnivalesque are no less forms of resistance. In its attempt to create a temporary, artificial scarcity of orange, pointy vegetables, Carrot Panic Buying is both absurd and clever. A hardy tuber like the carrot, with its exceptionally long storage life, is highly unlikely to be subject to shortages under normal environmental and economic conditions. Yet the people who organised the event picked carrots precisely because of those agricultural and economic facts. To appreciate the ridiculous hilarity of a run on carrots demonstrates a fair modicum of economic knowledge. The name of the event itself is an ironic nod to another consumer behaviour, panic buying, that is not very funny at all.

Globalisation is an established topic in economic sociology, but those aspects of resistance to it that are not entirely rational require further investigation (de Goede, 2005:381). In an era of economic imperialism (Fine and Milonakis, 2009), where economic forms of rationality are used in analyses of all aspects of social life – Freakonomics (Levitt and Dubner, 2006) is characteristic of the genre – is rationality a useful or meaningful form of resistance? “Irrationality” has spawned an entire sub-genre of economic analysis (Akerlof and Shiller, 2009; Shiller, 2005; Ariely, 2008) and desire is a central concern in studies of consumption (Campbell, 1987; Miller, 1998; Bauman, 2001), but whimsy is less visible. What might an economic sociology of whimsy – not impulsiveness or

“time inconsistent preferences” (Hoch and Loewenstein, 1991:493), not “irrationality” or hedonism – entail? Perhaps aesthetic considerations such as the grotesque or sentimentality? Economic sociology is, at present, barely equipped to answer such a question, yet respondents' playful resistance to economics-by-design suggests this could be another point of departure.

Concluding Thoughts

I set out on this rather protracted expedition to learn what ordinary people's economic knowledge can offer academic theories, which have taken little notice of what lay people have to say about economic life. Lay theorists in this research have suggested new avenues of exploration, revived old ideas and bolstered marginalised perspectives. For scholars of economic life, respondents' theories suggest that there are more stories to be told than those of high finance and “the firm”, that there are other ways of configuring an economy than those offered by neo-classical economics. The study of “economic life” must change into studies of economic lives, beginning from positions that embrace and encourage polyphonic, heteroglossic economies. “The market” and “the economy” are anachronistic, as is a currency-based definition of money. The gaps economic sociology must address are not only conceptual, but also ontological and epistemological. Virtual worlds present new economic configurations and innovative settings for investigating them, though new fieldwork techniques are not necessarily required, as this research's traditional ethnographic approach demonstrates. However there is still a need for investigating lay knowledges in everyday life. The findings of this research are only the proverbial tip of a very large iceberg. Alternative approaches to economic life are not only found in virtual worlds, they lie hidden in plain sight in farmers' markets, second hand shops, transition town groups and even in rightwing political movements like the Tea Party. An economic ethnography of the English Defence League could provide quite fascinating interpretations of economic categories

and processes, but that is a project I will leave to more adventurous researchers.

This project also suggests that practices are an underconceptualised aspect of economic lives. Though Final Fantasy XI and Second Life present almost opposed slant-wise views that illuminate different aspects of economic lives, in both sites practices were crucial elements of respondents' theorising. Second Life provides diverse perspectives because of the tremendous range of residents' modes of engagement with the virtual world, which influence how they engage with economic life on the grid, shaping their theorising. A consumption-oriented resident who regularly buys Linden dollars has a rather different perspective on economic life in SL than a land baron who receives virtual income from their holdings, or a transient resident who buys nothing. Though in FFXI players do not all agree, there is more conformity in economic conceptualisations because most players adopt many play styles and modes of engagement over time. Gamers develop characters that are multi-faceted, a Warrior could also be a Fisherman, an Alchemist and a Bard. They also pass through periods of casual play and greater intensity. This flexibility is a distinctive feature of Final Fantasy XI, and it provides chances to experience multiple dimensions of, and orientations to, economic life. Debates on fansites and forums also contribute to disseminating and popularising particular framings of economic life, producing a common repository of complex arguments, themes and ideas players can draw upon in their explanations. Despite these differences, practices are crucial aspects of respondents' theorising in both sites. Yet practices are not foregrounded in economic sociology, even though the performative turn in the field has strong Actor-Network-Theory (ANT) roots. There are also ethical and reflexive problems in studies of economic life. Economists, along with economic sociologists who promoted, or at least

promulgated and reflected, the views of economic elites – particularly scholars working with ANT-inspired approaches in high finance (MacKenzie et al., 2007; Knorr-Cetina, 2003, 2005; Knorr-Cetina and Bruegger, 2002a, 2002b, 2002c; Callon, 1998, 1999a, 1999b; Callon et al., 2007) or with governments or large corporations (Abolafia, 1998, 2005; Smelser, 1963, 1994; Parsons and Smelser, [1956]1984) – must bear some responsibility for the disastrous consequences of these visions of economic life. For economic sociologists, studying those who manipulate and reproduce economic discourses can also confer status. Becoming one of the boys, whether on the exchange floor or in the office, is no less “going native” simply because it happens in an ostensibly professional setting in Western capitalist societies. Economic sociologists must be more wary of the perils inherent in “studying up” (Nader, 1972; see also Gilding, 2010). One way to accept responsibility for past reflexivity lapses is to reconsider the most basic principles of our analysis from different points of view, which the respondents in this research have amply provided. As economic researchers, it is incumbent upon us to be more responsible and critical about views of economic life we reproduce through our work.

The goal of this project was bringing academic and lay theories into conversation, but in a dialogue there is neither a first word nor a last word, utterances are always incomplete and unfinished (Bahktin, [1934]1994b). Findings from both sites suggest that what is knowable about economic life, and how we should go about generating data to find out about it, must be expanded. There are more monies, markets, forms of exchange and modes of valuation than are reflected in economic sociology. Dialogues between lay theories and academic theorising will continue, hopefully encouraging further polyphonic and heteroglossic approaches to economic lives.

Appendix A: Research Instruments

Consent Form

This consent form, a copy of which will be given to you, is not only a statement of your willingness to participate in this study, it is also a reminder of my obligations to you. This form, along with the attached information sheet, should give you a good overview of what this research is about and what is involved in participation. If you have any questions or concerns, or would like further details on any aspect of the study covered here, please feel free to ask. Please take your time while reading this form and the accompanying information sheet. This research study has been approved by the London School of Economics and Political Sciences Department of Sociology.

You have volunteered, or are being asked, to participate in a study about economic activities in Final Fantasy XI. This study will explore buying, selling and trading, money, the value of and differences between items. As a current player, your expertise, experiences and knowledge of the game are an important contribution to this study. Participants will not encounter any physical risk in the course of this study, nor is it expected that any psychological harm will occur. You are free to decline any interview question that you do not wish to discuss. You may decide that participation in this study is inconvenient. If so, you are free to refuse to participate, or withdraw from the study. In the event that you no longer wish to participate, any information you have contributed will be destroyed.

Participation entails two one-on-one interviews and two group interviews, less than one hour each, which could be conducted online or face-to-face. Not all participants need join group interviews. These interviews will consist of open-ended questions about your experiences with FFXI. Instant messaging software will be used for online interviews, and transcripts will be saved on a separate computer that is not connected to a network or the Internet. Face-to-face interviews will be recorded and transcribed. No one will be able to listen to the recordings or read the transcripts except me, the researcher.

Your comments in the interview are confidential. In the published writings that will come out of this research, interviews will be quoted verbatim, but no one will be identified by name. Participants will be referred to by pseudonyms, and identifying characteristics, such as your server, will be omitted.

Please note that you have the option of using your in-game character name as a pseudonym for this study, and you also have the option of being interviewed but not quoted in publications arising from the research.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. This does not waive your legal rights nor release the researcher from legal and professional responsibilities. You are free to withdraw from the study at any time. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation. If you have further questions concerning matters related to this research, please contact Sandy Ross at s.ross@lse.ac.uk.

Please check the option that corresponds to how you wish your interview to be used in the course of this project.

- My interview can be quoted in future publications or presentations. Please use my character/avatar name as my pseudonym.

Please indicate your character name: _____

- My interview can be quoted in future publications or presentations, but please **do not** use my character/avatar name as my pseudonym.

Please provide the pseudonym you would like to use:

- I would like to participate, but I do not wish to be quoted in any publications.

Participant's Signature

Date

Investigator and/or Delegate's Signature

Date

A copy of this consent form has been given to you to keep for your records and reference.

FFXI One on One Interview Schedule

Exchange

After playing FFXI for about 4 years, I've noticed that there isn't much gift giving, except during special events, like Valentine's Day and Christmas events. Has anyone ever given you a gift in FFXI?

Was the gift crafted and signed by the giver?

What was the occasion of the gift?

What did you do with the gift? Do you still have it?

There's an assumption that gifts are always reciprocal, that when A gives to B, that B will later give something to A. Do you think that holds true in FFXI?

Can you tell me a bit about gifts you've given?

Do you think at all about how much a gift costs, in gil or effort, before giving it?

Have you ever given or received a gift that seemed too costly?

Generally we think of trading, buying and selling as things that happen between two people, but in FFXI, you can buy things from NPCs. How is it different to buy something from an NPC than from the AH?

What about harvesting and mining? Are those a kind of trading activity?

When you trade a pick axe to the ??? in Ifrit's Cauldron, who or what is on the other end of the trade?

What are the differences between buying something in an Auction House and buying something from a bazaar?

Do you ever buy things from bazaars of people you know, or are they usually strangers?

Why do you think the Auction House has sellers' and buyers' names listed in the price history?

Is this information useful at all?

What use have you made of this information?

Do you ever check to see from whom you bought an item in the price history?

Why do you think some items are designated rare or ex?

Are there some rare/ex items that should be sellable or buyable?

Why do you think designers sometimes retroactively add rare or ex tags to an item?

Value

What are some of the most costly items you own in FFXI?

Why do you think these particular objects are expensive?

How did you obtain the item?

Was it difficult to acquire?

What's the most important item you own in FFXI, the object that means the most to you?

How did you acquire it?

In everyday life, we can usually tell who made an object, or at least the company that made it, and where it was made. In FFXI, except signed objects, it's hard to know who made something or who has owned it before. Some games, like Second Life, have an extra tag attached to all objects to show who made them and who owns them. Why do you think FFXI does not have such a system?

Does it matter who owned an item before you?

If you found out that an item you bought belonged to a famous player on your server, would that change how important it was to you?

Do you think designers try to guess how much value players will assign to an item when they design it, and if so, do you think this effects how they decide the object can be acquired?

Why do you think designers make some items harder to obtain than others?

Markets

Economists describe markets as a “price fixing mechanism”, which essentially means that a market is an arena where supply and demand balance each other out to create a price for a given type of object. How do you think this definition of a market applies to buying and selling goods in FFXI?

Who are the buyers and who are the sellers?

What about in the AH?

In Bazaars?

To NPCs?

Game designers often talk about “player-driven economies” and “free markets”, claiming that players are in control of prices for items, how goods are sold or bought, and are able to regulate one another's behaviour in the event of a market crisis like sudden and severe inflation or deflation. To what extent do you think players are in control of prices and markets for goods and services in FFXI?

Do some players have more or less influence over prices set in the AH?

What happens when RMT players try to gain control of trade in an item like shihei or arrows?

What sort of items would you buy from a bazaar rather than the Auction House?

Do you ever use the FFXI Auction House website, <http://ffxiah.com>?

How do you use the website?

To check prices? To see if your stuff for sale has sold?

To see what friends are buying or selling?

Have you ever bought something someone was offering for sale, or sold something someone was asking to buy on ffxiah?

How was this different from buying something on the AH or from someone's bazaar?

Did you know the person?

Money

FFXI has quite a few different types of objects that are called money: gil, Imperial coins, Dynamis Money, the Counterfeit Gil item, various Beastcoins. Could you tell me a bit about how these items are different from one another in terms of how they function?

Why do you think Imperial coins were introduced?

Should it be possible to pay for things in the AH with Imperial coins?

Do you think it should be possible to pay for things in other currencies?

In FFXI there are no banks to offer loans and you can't spend more gil than your character possesses. If you find yourself short of money, but need to buy something, what do you usually do?

In everyday life, we sometimes set aside money for certain purposes, like paying a mortgage maybe just a vacation. In FFXI, what strategies do you use when saving up for a big purchase?

Is it necessary to save money in FFXI at all?

How is gil different from US dollars or other everyday money?

FFXI Group Interview Guide

Exchange

If you were a white mage, and your linkshell gave you a Noble's Tunic a long time ago, and you were about to quit FFXI permanently, would you return it to the linkshell leader?

Should any items given by linkshells be sold?

Are these items somehow different from gear you may have bought or found?

Are these items gifts, or are they more like a wage?

You're levelling a mage job, and lack money to buy an expensive, but vital, low level scroll. A wealthy friend offers to buy it for you, but asks that you pay him back by powerlevelling one of his

low jobs through Valkurm and Qufim. Would you accept?

What would be an acceptable exchange?

If a player you hardly knew offered a valuable item that were useful to you, let's say a piece of cursed equipment, with what appeared to be no strings attached, what would you do?

Would you feel obliged the person?

What if he returned several weeks later and asked for it back?

In everyday life, there are some types of objects we don't generally give as gifts, like vegetables, second hand clothes, toothpaste. . . What are some items in FFXI that might not make very good gifts?

If you were about to quit tomorrow, and you honestly didn't think you'd be coming back, what would you do with all your possessions and your gil?

What about your character?

Is there barter in FFXI?

What are some examples of barter in FFXI?

Value

If you saw an item in a bazaar that you wanted, but you'd never seen it before and none have been sold on the Auction House, how would you decide whether the price were fair?

What if none were listed at FFXIAH.com?

Is there a difference between the price of an item and its value?

In the past three years there has been both rapid inflation and deflation in FFXI. Prices of certain items have increased with inflation and only decreased a bit with deflation, like the Scorpion Harness or Cursed items, but others objects like lumber, some fish, certain foods or ingredients, have had fairly stable prices over time. Why do you think some items reflected the changing price scale and some did not?

How are the two groups of objects, those that changed prices and the ones that hardly changed, different?

Markets

In the everyday world, people talk about "the market" or the "forces of the market". What do you think these phrases mean in the context of FFXI?

In interviews, people talked to me about "playing the market" or "breaking / camping the AH". How do people "play the market" in FFXI?

FFXIAH tracks prices automatically. How has access to FFXIAH has changed the way people buy and sell?

How would it be different to buy something from someone who advertised it for sale through FFXIAH rather than buying an item through IGE or other RMT businesses?

Do you think they don't spend real money because of the stigma attached to RMT or because spending real money seems like a waste?

On my server, most of the best bazaars for high level equipment are found in Rolanberry Fields, while crafting bazaars are usually in Lower Jeuno near the fountain or outside guilds in starting cities. Where are bazaars generally found on your server, and what sorts of items do you find in different places?

What about situational bazaars - for example, on Valefor, there was someone, I'll call her Fishykitty, who always stood on the platform in the tunnel to Qufim selling food for low level exp parties - sushi, roasted mushrooms, cookies - for lower than AH prices.

Money

Some games, like Second Life, allow players to buy in-game money both from the company that makes the game and from third parties. How do you think the economy of FFXI would change if Square-Enix adopted a similar policy?

In everyday life, people frequently change money from one currency to another, which is essentially currency buying. Yet many MMOs such as FFXI, WoW and EQ have strict policies against buying virtual money. How would you describe the difference between visiting a money changer in an airport and visiting, say, IGE?

Square-Enix took a more active approach against Real Money Trading about a year ago. Why do you think the company made this decision?

What does a gil look like?

SL One on One Interview Schedule

Exchange

Can you tell me about gifts you've received in Second Life?

Was the gift created by the giver?

What was the occasion of the gift?

What did you do with the gift? Do you still have it?

Would a gift be more special if it were made by the person who gave it to you?

What if the present hadn't been made by the giver, but had been modified?

There's an assumption that when A gives to B, that B will later give something to A. Do you think that is true in SL?

Can you tell me a bit about gifts you've given?

Do you think at all about how much a gift costs, in Lindens or effort, before giving it?

Have you ever given or received a gift that seemed too costly?

When we give gifts in everyday life, an object is given away. A gives B a mug, and by default, A no longer has the mug, because B now owns it. In Second Life, when A gives B a mug, A still has a mug afterwards, unless it was no-copy. Can we still call this a gift?

What about things that people carry around, little copyable items, that are given out just as a gesture? Are these gifts?

Why do you think people make some objects no copy, no mod or no transfer?

Would anyone ever make a no mod and no transfer item that was copyable?

Why would someone make an object that is modifiable but still no copy?

Why do some people make things and then allow anyone to take a copy?

Value

What are some of the most costly items you own in Second Life?

Why do you think these particular objects were expensive?

How did you obtain these objects?

What's the most important item you own in SL, the object that means the most to you?

Why is this item important?

Where did this item come from?

In everyday life it is easy for buyers to tell when an object is second hand – it usually shows some signs of wear. In Second Life, people have yard sales to sell used items, but there is no actual change in the state of the item since it was purchased, so why are the prices lower?

Does it matter who owned an item before you?

Do you ever sell things from your inventory?

Inventories tend to become very large and hard to organize. How do you organize your inventory?

Do you ever throw things away?

What sort of objects have you thrown away?

Why were those particular things garbage?

When you are shopping in SL, how do you decide whether an item is fairly priced?

When you are shopping in SL, how do you decide if an item is good quality?

Markets

How do supply and demand work in SL?

Who are the buyers and who are the sellers?

How much influence do Linden Labs' land prices have over those in the private land market?

Do some real estate developers have more or less influence than others?

There has been some discussion of botting in property sales. Have you heard about this issue? (Explanation of issue if participant is unfamiliar with it.)

What effects do you think bots have, or could have, on land sales?

Do you ever use SL Exchange or OnRez to buy things for Second Life?

How was this different from buying something in-world?

Did you find the item from a link in the seller's SL profile?

Did you know the person from whom you bought the item?

Why might someone choose to run their SL business through one of these sites rather than in-world?

Many businesses in SL blend into RL. If we tried to define the SL "market", where would the boundaries be drawn?

Money

In a recent discussion on the Metanomics chat show, Ginsu Linden said that Linden Dollars are "not real". What do you think?

How are Linden Dollars different from currencies in the everyday world, like the Euro or the US dollar?

Where does your money come from in SL?

Do you ever camp for money or items?

Why do you think other people might do this?

Is money earned from camping different from money bought on the Lindex?

Have you ever thought of buying Lindens through another currency exchange, like Anshe

Chungs, or IGN?

Do you ever think about how much something you buy in SL costs in everyday money?

What about when you go on holiday abroad in everyday life?

In some other online worlds, like Everquest or World of Warcraft, buying game currency is considered cheating. Why do you think this is not the case in Second Life?

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