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The Social Life of Virtual Worlds

*Abstract*

As computer game technology has evolved, design has explored the boundaries of human-computer interaction. Recent advances have directed developers towards the incorporation of connectivity in game play, with contemporary titles acting as mediums through which social interaction is not only possible, but is expected, encouraged and enjoyed by consumers across the globe. The genre which has exploited this avenue most successfully is the Massively Multiplayer Online Role Playing Game (MMOG), through which participants engage with one another in enormous goal-directed virtual spaces via an internet connection and their PC. Arguably, the most compelling aspect of the long-term success of titles within this genre is the emergence of social systems previously considered the discrete domain of the offline sphere. This paper examines the genre through developer and user definition, demographics and three aspects of emergent online social life: interpersonal relationships, real-world implications and personal development. The approach is multidisciplinary, drawing evidence from the wide body of social science research into virtual worlds including psychology, sociology, economics and law.

*Introduction*

Computer games are an emerging powerhouse of research by students of social sciences. Their texts have relevance for cultural theorists and philosophers, while the real world ramifications of game play have implications for the work of

sociologists, psychologists, health professionals, economists, lawyers and cognitive scientists.

Social researchers have explored the discourse of computer game play as static entities, discrete within the console or PC-based systems in which they operate. In particular they have focussed on personal agency (Frasca 1) storytelling (Atkins 1), and to an extent have examined the out-of-game offshoots within the context of fan culture (Carr 1). Indeed, there is arguably a well-established outline for the examination of such computer game culture-related social systems already in place, but the persistence of a digital life wholly encompassed within a computer game environment available for observation, participation and data collection offers unique opportunities for students of social science, internet technologies and human-computer interaction. The presence of hundreds of thousands of concurrent players in a game environment who form recognisable and unique interpersonal interactions leading to the development of social norms, self-governance and social ideologies, offers a vast body of data available to reflect upon by curious academics interested in the emergent properties of a complete social world.

One such virtual environment is the Massively Multiplayer Online Role Playing Game (MMOG), a genre which itself evolved from the marriage between digital technologies and group story-telling. Specifically of interest are issues relating to the relationship between initial developer definitions of the products and the definitions imposed by players themselves, the demographics of participants in the online sphere and the reflective social phenomena which have grown out of the interpersonal interactions which the medium encourages. Finally, it will be argued that these worlds are environments in which to reflect upon offline social interactions, and where online experience formulates interpersonal and personal aspects of offline reality.

*What is a MMOG?*

MMOGs are interactive media developed by computer games designers and populated by paying subscribers. Unlike other internet interactions, MMOGs are goal-driven virtual environments, featuring elements of game-driven progress and reward. The populations in the games range from small clubs of hundreds to vast communities of hundreds of thousands of players. A 2002 estimate suggests that there are over four million MMOG gamers around the world (Castronova 1) engaging in over 350 active titles.

MMOGs offer open-ended game play, the relaxation of traditional objectives, opportunities for exploration, strategy, collective dynamics, real-life communication and relationship development. The online, multiplayer element pushes interactivity to new boundaries, allowing the gamer to help shape the environment, determine the goals and influence the texture of game play with the input and reactions of thousands of people around the globe.

Unique to MMOGs as an internet entity is the task-oriented nature of the games. As players engage with the same others to achieve game-determined goals, they develop unique social workings while being rewarded for long-term commitment both materially (in the form of advancement) and psychologically (in the form of an increased circle of friends). Their small group affects other similar groups across the game, and the whole becomes a reflection of the sum of the players who take part.

The market leaders (*Lineage* in Asia and *EverQuest* in North America and Europe) feature traditional fantasy-based game play, set in environments which reflect cultural myths or literature. Others, like *The Sims Online* are set in contemporary environments and feature recognisable brand names and contemporary ideologies. The settings are put into place by game designers, as with offline computer game entertainment, but are released to the imaginations of the players, who shape the game play within the game-directed goals and out with the expectations of the creators. Most titles feature a well-constructed goal

system of advancement, however players are at liberty to ignore these restrictions and to use the spaces as avenues for exploration.

Some titles anticipate and encourage a libertarian atmosphere. *Second Life*, for example, is a wholly user-created environment in which players use official game design tools or their own bespoke software applications to shape the landscape and experiences of other players. Other games are co-opted based upon economic constraints. The virtual world There.com, originally devised as a user-created space with potential business applications, was released, faltered in audience uptake and has since become an important arena for the U.S. military to practice strategic operations in safe space.

### *History*

MMOGs grew from the text-based Multi-User Dungeons (MUDs) devised in the late 1970's, prevalent on the early world wide web. These text-only spaces served as meeting points for computer-literate individuals to communicate with one another and to mutually generate a virtual space. Participants developed persona, objects and physical spaces from typed descriptions created on their personal computers, which then were transmitted to others on the multiple-user servers which created early networks. There, players could intermingle in real time with a minimum of technical prowess.

The MUDs were relatively unrestricted realms of free expression and, like contemporary MMOGs, had unique characteristics between worlds. Contributors were at liberty to present themselves in any way their imaginations allowed. The "self" that a person adopted could be as close to or as far removed from real self-identity as the player chose. Turkle (184) reflected on these practices. She described the personas individuals adopted to interact on screen:

*"You can be whoever you want to be. You can completely redefine yourself if you want. You can be the opposite sex. You can be more talkative. You can be less talkative. Whatever. You can just be whoever you want, really, whoever you have the capacity to be"* (184).

Indeed, multiple user accounts were possible, and many took the opportunity to compartmentalise self-aspects in characters, presenting them in specific MUDs when the mood was appropriate.

### *Role Play*

This element of role play has transferred to contemporary multi-user game environments. Upon entering a MMOG, players choose a character and personalise it to their tastes. Gender is a commonly manipulated element by many gamers; demographic work suggests that approximately 85% of the female characters online are actually played by male participants (Yee, Norrathian 12). Other aspects decided at the outset have repercussions for how the individual progresses through the game. Healer characters, for example, have sub-basic fighting skills, but are highly prized for the support they are able to give to injured or ill characters. They are protected by the collective in order to provide their unique support when others are in need, thus arguably creating social structures based upon demand and prestige (Taylor 38).

The unique talents each character class brings to the social environment are rewarded. Skill is distributed for deeds well done, and this translates into broader access to the game world, specialised objects to enhance the propensity of the character's abilities and differentiation from lesser-experienced players. While consistent role play is encouraged through these means, active role play, like that found in offline specialist clubs, is restricted to a discrete population in specific game environments.

### *Demographics*

On average in games that feature a fantasy element approximately 80% of players are male. 70% of them are between the ages of 14-29, with the largest cluster between 20-25 years old (Griffiths, Davies, and Chappell 81). These figures reflect contemporary computer games populations in general, with the average age of console gamers at 29 (Vanarsdall para 4). MMOG players average slightly older, arguably due to the monthly subscription fee required to

play the game, and the technological specifications necessary to enjoy the online experience. Further, the time commitment required is perhaps part of the reason some researchers indicate that many participants are in full-time higher education (Yee, Codename 12).

The remaining 20% of players in fantasy-based games are women, a higher but similar proportion than in offline table-top RPGs. Women are the majority in titles which feature “female friendly” elements, like non-fantasy themes, contemporary ideological structures and substantial time for community development. On average they are five to six years older than their male gaming counterparts (Interactive Digital Software Association para 4; Yee, Norrathian 12), and they are more likely to have children and be in a steady relationship or married than male players (Yee, Norrathian 13). 69.5% of female gamers play with a romantic partner, and anecdotal evidence suggests that the cooperative nature of their game involvement tightens real-world bonds. Further evidence suggests that those couples who are experiencing relationship problems enjoy the opportunity to role play solutions in a safe environment (Gonzales para 4).

Traditionally it is the male partner who introduces women to the games, but increasingly many report finding the games themselves, particularly after the birth of a child. Consistent with other research into the motivations for going online, isolation from social situations encourages new mothers to log on and increase group interactions.

### *Interpersonal Interactions*

Fundamental to MMOG play is interpersonal interaction. As a multiplayer game, the user has the unique ability to engage with others, and the game-directed goals ensure that the need for cooperation increases as progression continues. The collectives that result work together to overcome mutual obstacles. Over repeated group play, these communities support, defend and protect one another.

The software is engineered to ensure that community relationships are formed (Yee, Daedalus para 1). Action is punctuated with quiet time, during which participants regroup, rethink, strategise and develop interpersonal bonds. Often these online friendships extend beyond the game space. In this way, players develop meaningful relationships in a similar fashion to other online communication technologies.

There is limited research on the development of friendships in MMOGs, but the closest body of evidence relating to the development of interpersonal interactions in online spheres is research undertaken in chat rooms or via live Instant Messenger services. The spheres are similar most notably because conversations occur in real time, simultaneously rather than asynchronously. According to Levine (565), in these situations the processes involved are similar to those in offline relationship development. Particularly pertinent are cognitive proximate similarity, self disclosure and reciprocity.

Participants who engage in MMOGs or in chat rooms concurrently are virtually proximate, regardless of physical distance. Indeed, they interact together in the same environment from their remote locations. Feelings of intellectual closeness replace the physical aspects of friendships. Further, their similarity extends beyond personal proximity. Because participants engage in the same activity regularly, and a MMOG player spends an average of 22 hours per week in-game (Yee, Norrathian 12), they are similar in their free time choices. Group activity then arguably establishes more mutual experience, allowing for the development of a similar social history.

Bargh, McKenna and Fitsimmons. (38) and McKenna and Bargh (57) suggest that quick interpersonal relationships, from romantic to platonic, are encouraged by the trust in others in online mediums. In MMOGs in particular, Yee (Norrathian 14) reports that in-game friendship bonds are considered stronger and qualitatively better than those that already exist offline.

Anonymity plays an important role in both the perceptions of similarity and in further forging interpersonal bonds. Offline examples of this phenomenon have been demonstrated by Rubin (233) in which he examined the self-disclosure of strangers on a train. Observers noted that passengers were more willing to express themselves more openly to unknown others than their salient groups because of the perceived lack of consequence. Arguably a similar experience occurs online, and a number of studies have demonstrated this in synchronous and asynchronous environments (Ben-Ze'Ev 451)

Research by Bargh *et al.* (38) indicates that the anonymity of online interaction results in the presentation of a subjective "True Self" to others within internet spaces, and that this projection is trusted to be reciprocated. This results in an increased circle of significant friendships, contrasting with earlier research which argues that online activity decreases social interaction (Kraut et al. 565).

Some players choose to tighten in-game partnerships with socially-generated rituals. Marriage has been implemented across most worlds in the genre, and some designs have incorporated it into the underlying economic system. For example, the Korean game *Ragnarok Online* charges a fixed amount of in-game currency for a wedding "license" and for a divorce, granting and dissolving exclusive rights between pairs in the virtual space. Virtual partnerships may not occur between proximate offline couples, yet their commitment to play with one another ties them inextricably together and encourages a consistency of character.

#### *The development of social norms*

While the absence of real-world repercussion arguably encourages a steady stream of open personal communication, community and team building are based upon the degree of trust each player has in others to support the collective. Those who do not conform to a clique's social norms are rejected from future activity. Further, the perpetuity of the game space results in the

development of social histories, and injustices in the past may lead to rejection in the future.

Examples of commonplace social norm breach include theft of in-game property, turncoats or players who consistently cause trouble for others. More extreme examples exist, resulting in the development of large scale in-game self-governance.

Dibbell (1) recorded an incident in which an early MUD evolved from a libertarian state into a organised system with explicitly stated rules and punishments. A character who called himself Mr. Bungle used a computer program to manipulate the personas of two female characters, whom he forced to perform sexual acts on his imaginary avatar. While the activity only occurred in text, the MUD community established an early example of a "death penalty" and set up a hierarchical judicial system to maintain social norms.

Development companies have since taken such activity very seriously and have set up a police-style service for players. "Game Masters" are under the employ of the computer game publishers and act as intermediaries between conflicting parties. However, such systems are viewed by some players as insufficient. Massive gatherings of players, dubbed "virtual protests", are aimed at overloading the server and have occurred across games for perceived designer injustices. Many player communities have formalised their activities under the banner of in-game political systems. *The Sims Online* government, for example, is a wholly emergent system with a user-elected President and Cabinet. It operates in "Alphaville", a notorious region of in-game divergence. The elected character is regarded by other players as their leader, and he acts on behalf of his citizens to stamp out the growing player-created red light district, the activities of The Sim Mafia and other crimes against players. Social researchers argue that the in-game self-government has arisen as a consequence of the underlying foundations of MMOG play: trade and barter.

*Trade & barter*

Underlying MMOG game play are the basic tenets of trade, barter and asset accumulation. Currency is earned through specialist trades, from defeating problematic foes or for completing in-game objectives. It can be traded through game portals for more powerful objects, with the value determined in the case of armour and weaponry by its hardiness against attack, and in the case of virtual property, objects of aesthetic importance and other non-game specific elements, through social construction.

The public display of high-powered objects arguably creates hierarchical social structures (Taylor 38), and costume plays a significant role in determining who and how to approach individuals. The subsequent desire for progress through the game or for demarcations of in-game experience leads to an economy of ideology.

This economy is thriving, both in the virtual worlds and offline. Because group play is an important aspect of game enjoyment for many players, falling behind because of real-time commitments can result in exclusion from group activities. Currency, everyday objects and particularly aspirational items are bought and sold on internet auction sites like eBay for real-world currency in order for time-short players to keep in line with a group. Successful auctions can be worth more than US\$2,800 (Castronova para 1) for the purchase of a desirable character account, an average of US\$750 for virtual property (Dibbell para 1) and US\$50 for a sum of currency. Transactions occur in the trust-based online auction systems and players arrange to transfer goods in the game space. The result has been the formation of in-game gangs, robot-controlled gathering mechanisms and offline "grinding factories", where low-paid employees create desirable character accounts to be sold for an average of US\$200 each (Dibbell para 40). This has also imported offline financial power structures into the online system.

The real value of such a system has been calculated by economists by examining the amount of currency a player can earn in an hour of play and

comparing it to an averaged exchange rate devolved through eBay sales. In 2003 the projected real-world gross domestic product for the online game *EverQuest* was comparable to that of Bulgaria. The in-game currency had a value approximately equal to the Russian Rouble (Castronova, *On Virtual* para 1). Further analysis of the overall economy of Western online games suggests that virtual trade has a value of approximately US\$2 billion annually (Castronova, *Edward* para 3). This figure is argued to rise exponentially, to \$75 billion, when international trade includes Korean, Japanese and Chinese game markets. Castronova (*The Economies* para 45) suggests that this value is comparable to that of the market for tennis shoes.

This lucrative real-world economy has encouraged the foundation of offline businesses dedicated to virtual trade. A recent entrepreneur earned an average of US\$47,000 for the fiscal year 2003-2004, more than the average salary of a US secondary school teacher (Castronova, *Journalist* para 1). The implications for international trade and law are currently under consideration by legal scholars, economists and philosophers.

### *The Law*

These trade activities are illegal across all regions, although some believe that official involvement is inevitable to avoid a thriving black market. There is currently no policy to protect against international trafficking. Games companies rarely attempt to eradicate individual traders, although there have been successful cases against trading organisations.

All players are bound by the End of User License Agreement, which grants the publisher ownership of all intellectual property in the game, however some players have been successful in bringing law suits against companies for failing to respond to in-game injustices. In 2003, a case in China resulted in an award of US\$1,200 for a boy whose game account was robbed of its currency and valuable items because of a loophole in the design of the system. More recently a

Japanese woman was arrested for entering a former partner's game account and deleting his in-game assets.

Castronova (The Economies para 75) predicts that the precedents put into place by these cases will have an impact on the role that international governments play in virtual worlds. Indeed, there have been proposals to examine policy decisions relating to finance, law and social change within these environments. These suggestions assume, however, that the in-game activities of players have no repercussions on their offline selves. There is a growing body of research to suggest that they do.

### *Personal Development*

Turkle (160) was an early contender that interaction in online virtual environments offered players the opportunity to explore themselves within a safe space. By examining the experiences of users of MUDs, she argued that these worlds were "identity laboratories", in which participants could explore aspects of the self in a collective manner.

This line of enquiry has been replicated by Bargh *et al.* (38) in asynchronous spaces and by others in MMOGs (e.g., (Krotoski 1; (Steinkuehler 1; (Gee 1). These in-game findings reflect suggestions that women in particular use interactive entertainment in order to learn (Graner Ray para 12), and recent press surrounding games' educational benefits does highlight that players are more likely to achieve academic success, attend university and to find employment (Harris 1). It can be argued that the personal and social development invoked through online gaming is an attraction to the relatively high proportion of women who engage with this genre and not others. For this reason, the in-game emergent phenomena may have implications for offline attitudes and behaviour.

### *Conclusions and further questions*

The social life of virtual worlds is rapidly becoming a source of attention for scholars, where they examine the texts as user-generated constructs, unique

from those intended by the creators. Within this line of thought, there are implications for the study of emergent community-based systems, self-governance, ideology, economics, leadership, group interaction, social influence and interpersonal communication.

MMOGs have a unique position as both cultural texts and continuous systems, with an added asset of internet digital tracing for accurate representation and comparison between subjective experience and actual events. Active “tinkering” or experimentation elicits questions of ethics, particularly in light of evidence which argues that participants are not passive recipients of in-game effects, but active consumers, co-constructors and co-creators of events, meanings and discourses in the virtual environment.

As populations increase and digital boundaries are expanded through technological advancement or user subversion, these worlds will generate a greater body of knowledge relevant to social science and cultural theory. By perpetually crossing the boundaries between the real and the digital, MMOGs represent an exciting development in understanding the processes involved in social construction.

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