LIVING A LIFE ONLINE: TRUST, EXPRESSION, AND INTERACTION IN MMOGS

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Abstract

Life on the Internet has possibly as many forms and functions as real-world existence – a notion that is readily apparent through an examination of virtual worlds and Massively Multiplayer Online Games (MMOGs). In the daily operation of such a world, players face social interactions in much the same fashion that individuals are likely encounter in their offline "real" life (Guadagno, Muscanell, Okdie, Burk, and Ward, 2011). These gaming experiences are of course colored by both the nature of the medium and the unique design of the virtual world in question (Taylor, 1999, 2004; Park and Namho, 2011). Scholars seeking to study the medium itself often look to the ways in which video games affect behavior or facilitate the acquisition of social capital (Zhong, 2011; Collins & Freeman, 2013), while the analysis of specific virtual worlds is traditionally limited to the ethnographic study of social institutions, play communities, and the daily lives of players (Mnookin, 1996; Pearce 2009). This paper is the result of a literature review of social interaction and online communication, as well as a pilot study on MMOG players, examining the relationship between self-disclosure (Miller, Berg, & Archer, 1983), motivation (Yee, 2006), social perception, and resultant behavior. A small pilot study indicated that people's motivations for gameplay as well as the group memberships of other players affect the likelihood of trusting and helping other players in MMOGs.

Introduction

When any new media are introduced to society at large, questions about their impact fall into three traditional categories, and video games are no exception (Williams, 2003). These questions typically ask what the new artifact replaces, how it impacts the health of individuals in society, and how it impacts society at large. With the pervasive nature of games in today's world and the increasing frequency with which these games contain online social elements, the second and third categories of concern have inspired a respectable surge in social research. Still, the density of literature pales in comparison to the prevalence of online interactions, cultures, and even functioning social structures.

Over the past decade online games have become increasingly ubiquitous as players from around the globe connect in ever-growing numbers, and prominent titles emerge from a variety of countries. While the world marveled at the seemingly unstoppable growth of *EverQuest* back in 2002, its total user count peaked at just over 500,000 players. Only a few years later, *World of Warcraft* boasted a staggering five million players, peaking at 12 million in 2012, just a decade after the decline of *EverQuest*. The number of active users has risen so rapidly that in 2008, China alone contained over 147 million players of online games, 53% of which were massively multiplayer online role playing games (MMORPGs) (Zhong, 2011). As the number of players in online worlds continues to rise, the effects that this digital existence has on peoples' interpersonal communication patterns becomes increasingly relevant.

One of the most critical elements to consider in online communication and interpersonal relationships is the notion of anonymity. Much scholarly literature explores the nature of online anonymity in affecting individuals' personality, social capital acquisition, behavior, and their propensity for truthfulness (Singer, 1996; Qian & Scott, 2007; Bernstein et al., 2011). While many scholars have pursued the nature of these elements in social media such as Facebook and chat rooms, online games provide a unique, ludic context for this anonymity. These considerations offer up a variety of research questions concerning the players and developers of online games. How can developers create game systems and promote social structures that support the formation of trust and the acquisition of social capital? Can and should an individual trust somebody in an online space, whether that space is purely a social forum or a game world? Many elements of online communication are founded upon the ability of users to remain anonymous, which prompts the question of how much one should discuss with somebody who is a relative stranger (Qian & Scott, 2007). Additionally, this concern questions the role that games play in navigating interpersonal relationships. Despite the seeming importance of this concept, only a sparse area of the anonymity literature concerns the nature of trust in online spaces. The majority of seminal research on trust is based in real-world interactions or across social media such as Facebook and Twitter, with a prominent gap in the literature where online games are concerned. Despite the large percentage of the world's population that inhabits online game worlds, the majority of literature considered directly applicable for the study of socialization in online games was written three or more decades ago. Recently however, scholars of new and interactive media have worked to reconcile this lack, relating the concept of self-disclosure to the proclivity for trust in online spaces. While a number of methods have been developed for measuring self-disclosure in real world contexts, these are not directly applicable to the study of multi-user communication across digital media. This due strictly to issues of replicating experiment conditions in virtual worlds, as many scholars believe that there is no substantial difference in the "real" and "virtual" world (Lehdonvirta, 2010).

Joinson, Paine, Buchanan, and Reips (2008) developed a web-based form that adapts the Jourard Self-Disclosure Questionnaire, a widely accepted and yet outdated measure, to contemporary standards. Once the ability to measure self-disclosure levels in online game players is established, the challenge becomes finding the methodology with which one relates disclosure to trust, and the context at work in online games.

Ratan, Chung, Shen, Williams, & Poole (2010) measured the amount and type of communication among players in an MMORPG guild – a collection of players joined in-game under a named social organization – in order to determine what social factors affected trust. Their research found that trust levels were related to both the nature of player social structure and the mode of communication between players, such as voice-chat and in-game guild-wide messages. Comparing their data with the results of self-disclosure measures, Ratan et al. (2010) found that players trusted those in their guild more closely than other players in the game. This study will use similar methodology to relate self-disclosure to additional variables in player affiliation, the motivation types of those players, and personal experiences shared by participants about their most memorable game moments.

Self-Disclosure
A key element of social penetration theory, self-disclosure is a communication process wherein an individual reveals information about themselves to another person. Any details the individual shares about themselves falls under the umbrella of self-disclosure, including "thoughts, feelings, aspirations, goals, failures, successes, fears, dreams as well as one's likes, dislikes, and favorites," (Ignatius & Kokkonen, 2007). This range of topics refers to the first of two dimensions to self-disclosure: the breadth of the information, and the depth. Breadth is the most easily expanded portion of self-disclosure, as the information involved refers to our general interests, preferences, and everyday lives. No real depth of revelation is required, simply the acknowledgement of a personal opinion or lack thereof. Conversely, the second dimension to self-disclosure involves the depth of information revealed, which is much more difficult to expand upon due to the intimate nature of delving deep into an individual's emotions and reasoning. The more personal the revealed details are about an individual's life or identity, the greater the propensity to self-disclose must be in order to share those details. If this is the case, then what in-game actions or communications increase the level of intimacy between players? There are a number of answers to this question, such as achievements, social circles, and memorable shared experiences. This concept relates to one of the other variables of the present study – motivation.

According to Miller, Berg, and Archer (1983), willingness to self-disclose is positively correlated with the discloser's level of intimacy towards the recipient. Their study established measures for quantifying the natural inclination for an individual to self-disclose to a stranger, as well as to a same-sex friend. As one would expect, the study evidenced that the more personal a series of questions became, the less the participant was willing to disclose. Additionally, this willingness decreased at a significantly lower rate when disclosing to a same-sex friend, as opposed to a stranger. Combined, these findings would suggest that in an online game setting, in which the majority of players with whom an individual makes contact will be anonymous, high-depth self-disclosure is a fairly rare occurrence.

However, this may not be the case. In a study of anonymity and ephemerality in online communication, Bernstein et al. (2011) found that if given the option to remain anonymous, over 90% of users would choose to do so, and the remaining 10% often adopted fake identities related to some facet of online culture, such as comedic trends and current events. Despite the prevalence and general perception of anonymity,

Bernstein et al. (2011) found that this was not always a negative community element; in fact, their research evidenced that anonymity was positively correlated with more frequent occurrences of intimate and open conversation, and that anonymity can act as a socialization tool that protects a person from their online failures. In the context of an MMORPG, this protection against failure becomes particularly relevant, as game mechanics add the role of the avatar and ludic progression to a user's social identity. Park and Chung (2011) conducted a study on avatars and self-presentation desire in MMORPGs, and concluded that these dual elements promoted trust of online games, as well as a commitment to an online community.

If this is the case, then could there be a link between anonymity and an increased occurrence of self-disclosure? In studies such as Ratan et al. (2010), self-disclosure is analyzed alongside messaging patterns to determine the correlation between trust and communication medium of choice. This study is a promising early look into understanding the nature of player communication and interpersonal relationships in online games spaces, with both prior and subsequent studies in related areas lending additional validity to their hypotheses. As an example, a study conducted by Collins and Freeman (2013) concluded that problematic and non-problematic player types did not differ significantly in terms of personality (trait empathy, prosocial behavior, and extraversion), but they both evidenced significantly higher levels of online social capital acquisition, and sub-standard offline social capital acquisition. This can be interpreted to show that online anonymity prompts higher levels of intimacy and self-disclosure, while the medium of MMORPG promotes trust and elicits a desire for self-representation. In continuing to build on this interrelated literature, the present study aims to observe additional components of player behavior. Specifically, it compares self-disclosure and socialization to well-established player taxonomy (Yee, 2006; Williams, 2008) to determine the role that motivation plays in the formation of and propensity for trust.

Motivation for Online Play
Establishing taxonomy of player types is one of the fundamental ways in which scholars can begin to break down the complex nature of online communities, especially with regards to drawing similarities and consistencies between the diverse groups of people from across the globe. Yee (2006) defines 10 motivation subcomponents that grouped into three primary groups, labeled social, immersion, and achievement. According to Yee, social players are motivated by relationships, teamwork, and self-disclosure. Achievement players are considered to be a reversal of the social group, with their primary motivations consisting of progress, optimization, challenging others, and domination. Immersion falls between the two extremes, with players in this group being motivated by exploration, narrative, aesthetics, and escapism. Williams, Yee, and Caplan (2008) sampled thousands of participants in cooperation with a large for-profit MMORPG developer, reproducing and validating Yee's earlier findings. These motivation types can be linked to a number of play patterns, the most notable for this study being both self-disclosure and community engagement.

The Present Study
The purpose of this study is to analyze self-disclosure in the context of player motivation types and guild perception to determine the predictive factors of trust in online games. While previous studies have found certain elements of personality such as prosocial

tendencies and trait empathy to lack statistical significance with regard to social capital acquisition (Collins & Freeman, 2013; Odrowska & Massar, 2014), the present study aims to explore the correlation between the personality factor of motivation and the social elements of trust and guild perception. By observing trends in player behavior, the potential exists to both garner extensive knowledge on the nature of trust and self-representation, and to design future online experiences in such a way that they promote these behaviors we as a society consider healthy and positive.

Adapting measures from the Yee (2006) and Williams (2008) player motivation survey, as well as two unique sets of self-disclosure measures (Joinson, Paine, Buchanan, & Reips, 2008; Miller, Berg, & Archer, 1983), players of MMORPGs will be asked to complete a survey to determine their proclivity to self-disclose and the motivation type their play patterns most associate with. The participants will additionally answer a series of questions about decisions they would make in certain game scenarios, rate their agreement with a series of attitudinal statements, as well as share some of their most memorable moments in an MMORPG through a short answer response.

Predictions
Based on the subcomponents associated with the three types of player motivation, as well as previously observed elements of guild communication and commitment, a number of predictions can be made. First, players in the social motivation category should display higher levels of self-disclosure overall, as this is one of the factors Yee (2006) associates with that group. Building on this hypothesis, players in the achievement category should be less likely to trust others than would either of the two other motivation types, due to their penchant for competition and domination. Because of this, players who are socially motivated will trust players more willingly; players motivated by achievement will trust the least willingly, and trust in a player will decrease based on their social distance from the participant's guild.

Second, it can be predicted that players will more frequently engage in spontaneous helping of those who are in their guild over those who are in another guild or are in no guild. Conversely, players will be more willing to attack another player if the target in question is not affiliated with any guild, or is in a guild other than their own. Furthermore, the previously reviewed research suggests that due to the relationship between MMORPG commitment and guild socialization, the short answer responses of participants who report higher levels of self-disclosure should reflect high guild activity.

Method

Participants

Participants were 37 (27 men, 10 women) students at a large southwestern university who volunteered to participate in response to a request for participation sent via email to members of the university's video game player club. In response to our request, a total of 54 members participated in the study but only the above 37 (68.5%) indicated that they played MMOGs. Thus, our final sample only included the 37 participants who indicated that they played MMOGs. Their age ranged from 18 to 46 (*M* = 25.73, *SD* = 5.73).

Measures

To assess motivations for playing MMOGs, participants filled out the Online Gaming Motivations Scale (Yee, Ducheneaut, & Nelson, 2012). This scale assesses three different types of motivations: social, achievement, and immersion by asking participants to rate a number of in-game activities in importance on a Likert scale ranging from 1 (not at all) to 5 (extremely). An example of social motivations is the following item: "Being part of a guild"). Asking participants to evaluate statements such as "acquiring rare items" assessed achievement motivations. The immersion subscale included items such as "learning about stories and lore of the world." For the present study, the reliabilities for each subscale were as follows: Social, α = .87; Achievement, α =.68; Immersion, α = .79. Despite the small sample size, these reliabilities are comparable or greater than reported previously.

To examine self-disclosure in MMOGs, we assessed two different measures, both developed by Miller, Berg, and Archer (1983). The first assessed individual differences in the extent to which people elicit personal information from others. Those scoring high on this scale are referred to as "Openers," reflecting their skill in obtaining self-disclosure from others. Example items include: "I can easily get people to "open up." The second measure assessed the extent to which participants engaged in self-disclosure themselves by asking them to indicate the frequency of sharing with a same-sex stranger information on their personal habits and deepest feelings. Participants completed 10 items on each measure using a Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree). In the present study, our results indicated the following reliabilities: Openers α = .83; Self-Disclosure α = .90.

Participants also completed a series of questions assessing their likelihood of joining a guild and their willingness to other trust players with their in-game items and currency, to share their email address, and to assist another player on a scale ranging from 1 (Never) to 5 (Likely). Each item was analyzed separately with the trust and helping items assessed three times, once for guildmates, second for members of other guilds, and third for players with no guild affiliation.

Procedure

After participants received an email requesting participation in the survey, willing volunteers were directed to a website hosting the survey using a computer of their choice. Participants who indicated that they did not play MMOGs were excused, while those that were MMOG players filled out each survey then were thanked for their time.

Results

In addition to the above measures, we also assessed how much time participants spent playing MMOGs per week. Our results indicated that participants' play time breakdown was as follows: 0 to 5 hours = 1 (2.7%); 6 to 10 hours = 4 (10.8%); 11 to 15 = 6 (16.2%); 20 to 30 = 11 (29.7%); 31+ = 15 (40.5%). Thus, most participants devoted quite a bit of time per week playing MMOGs.

Initial Analyses

To examine the relationship between motivations for playing MMOGs, self-disclosure, and gender, we first ran a series of correlations indicating that achievement motivation was negatively correlated with immersion, r (37) = -.44, p = .007. Similarly, social motivation was positively correlated with self-disclosure, r (37) .37, p = .023. Next, we conducted a series of independent samples t-tests to examine whether any of our measures differed by participant gender. Consistent with previous research (Yee et al., 2012), men were significantly more achievement motivated than were women (M = 3.88, SD = .73 vs. M = 3.27), SD = .70), t (35) = 2.26, p = .03. Unlike the prior research, the gender difference in social or immersion motivations for MMOG play were not significant.

Helping Intentions

Prior to examining participants' intentions to assists other MMOG players as a function of their guild status (own guild, other guild, or unguilded), we examined participants' likelihood of joining a guild when playing an MMOG and whether men and women differed in this. Our analyses revealed that the majority (81%) of participants reported being likely (37.8%) or very likely (43.2%) to join a guild. Men and women did not differ significantly on this measure.
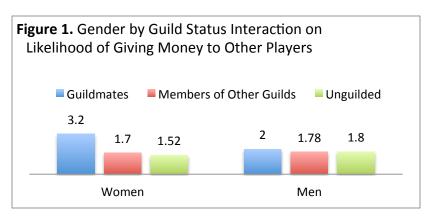
Data Analysis Strategy. We examined whether participants differentiated between their own guildmates and other MMOG players in terms of trust and helping to examine our first two hypotheses. To examine this, we conducted a series of Mixed Design ANOVAs with guild membership of the other players (guildmate vs. member of another guild vs. unguilded) as the within subjects variable and gender of the participant is the between subjects variable. See Table 1 for Means by guildstatus for each question.

Table 1. Means and Standard Deviations for the Trust and Help Measures by Guild Status

	Own Guild	**Other Guild**	**No Guild**
Trust with Items	1.98 (1.65)	2.00 (1.03)	1.59 (0.83)
Give Money	2.00 (1.65)	1.76 (0.96)	1.54 (2.14)
Share Email	3.11 (1.15)	2.46 (1.22)	2.14 (1.23)
Helping	4.68 (0.53)	4.03 (0.80)	3.84 (1.17)

Trusting Other Players. In response to the item assessing the likelihood that participants would trust another player with their in game items, our results revealed a significant main effect for guild status, Wilks' λ = .65, p = .001, η_p^2 = .354. Post hoc tests using Fischer's LSD indicated that participants were more likely to trust members of their guild (M = 1.89, SD = 1.7) and members of other guilds (M = 2.0, SD = 1.3) with their in-game items more so than individuals who were unguilded (M = 1.59, SD = 0.83). The difference between the guilds was not significant. There was no difference between male and female players and the interaction was not significant.

Giving Money to Other Players. Participants were more likely to give money to members of their own guild money relative to players in other guilds and unguilded players, Wilks' λ = .71, *p* = .01, η_p^2 = .239. Post hoc tests also revealed that participants were more likely to give

Figure 1. Gender by Guild Status Interaction on Likelihood of Giving Money to Other Players

members of their own guilds money (*M* = 2.32, *SD* = 1.67) relative to members of other guilds (*M* = 1.76, *SD* = 0.96) and unguilded players (*M* = 1.54, *SD* = 0.84). Participants did not differentiate between players in other guilds and unguilded players on this measure. There was no main effect for participant gender. However, the interaction between participant gender and type of guild was significant, Wilks' λ = .71, *p* = .01, η_p^2 = .239 indicating that, compared to men, women were significantly more likely to give money to members of their own guilds. Men and women did not differ in likelihood of giving money to MMOG players who were not guild members. See Figure 1 for a breakdown of means by gender and guild status.

Sharing Contact Information with Other Players. There was also a significant main effect for participants' willingness to share their email address with other players, Wilks' λ = .65, *p* = .001, η_p^2 = .354. Post hoc tests indicated that participants were significantly more likely to share their email addresses with members of their own guilds (*M* = 3.11, *SD* = 1.15) relative to members of other guilds (*M* = 2.46, *SD* = 1.22) or unguilded players (*M* = 2.14, *SD* = 1.23). Participants did not differentiate between players in other guilds and unguilded players on this measure. There was no difference between male and female players and the interaction was not significant.

Providing Help to Other Players. Similar to above, our analyses revealed a significant main effect on participants' likelihood of helping other players such that participants were significantly more likely to help their guildmates (*M* = 4.68, *SD* =.53) relative to members of other guilds (*M* = 4.03, *SD* =.80) or unguilded players (*M* = 3.84, *SD* = 1.17), Wilks' λ = .58, *p* < .001, η_p^2 = .422. Men and women did not differ on this measure nor was the interaction significant.

Individual Differences and Trust and Help in MMOG Play

Finally, to examine the role of player motivations, individual differences in opening others to self-disclose and participants' own self-disclosure, we ran a series of correlations between these items and the measures of trust and helping in MMOGs. Given that, consistent with predictions, the results reported above revealed that participants differentiated between their own guildmates vs. other players, the correlations were conducted separately for each guild status.

Being likely to join a guild while playing an MMOG was significantly correlated with social motivations for MMOG play, r (37) = .80, p < .001, and with self-disclosure, r (37) = .34, p = .037.

Guildmates. Trusting one's guildmates with in-game items was negatively correlated with achievement motivation for playing MMOGs, r (37) = -.40, p = .014, and the openers self-disclosure scale, r (37) = -.33, p = .05. Additionally, social motivation for MMOG gameplay was significantly related to the likelihood of giving guildmates their email addresses, r (37) = .60, p < .001. No other correlations were significant.

Members of Other Guilds. As with one's guildmates, social motivation for MMOG play was significantly correlated with the likelihood of giving members of other guilds their email address, r (37) = .36, p = .029.

Unguilded Players. Achievement motivation for MMOG play was negatively correlated with trusting unguilded players with one's items, r (37) = -.38, p = .019, and in game money, r (37) = -.34, p = .039.

Discussion

The results of this pilot study expand the work of previous scholars in identifying elements of player psychology in relation to trust and helping. As predicted, player motivation type was related to specific actions and levels of trust in other MMOG players. As predicted, players who identified as being motivated by social elements of online play revealed higher levels of self-disclosure and were more willing to trust their fellow MMORPG players with information such as their email address.

Similarly, we found as expected that achievement-oriented players, whose motivation subcomponents contain such factors as domination, challenging others, and status, would be less likely to trust and cooperate with other players. In support of these predictions, we mound that players high in achievement motivation were less trusting with their in-game items when the other player was unguilded or a member of their guild.

These results suggest that a MMOG player's motivation for playing the same has important implications for the way in which they behavior towards other players in their gaming environment. One such additional factor is the guild status of the other players. Generally, across the different motivations for gameplay, participants reported greater levels of trust and willingness to help members of their own guild relative to other players. This finding is consistent with much previous literature in social psychology revealing that people prefer members of their own groups (Tajfel, 1982). Thus, as with previous research (e.g., Guadagno et al., 2011) the results of this pilot study indicate that people behavior similarly online as they do in other contexts.

Limitations and Future Directions

The methodology for this study was fairly limited, as a questionnaire, no matter how thorough, does not perfectly account for play experience. As such, this was intended to

be a pilot study into the relationship between what motivates people to play MMORPGs and the actions they take in game with regards to social interaction and participatory game culture. Future research will be informed by the results of the present study, and analysis of certain factors, such as achievement motivation and inclination to attack others, can prompt additional studies on motivation and morality, the nature of social pacts in MMORPG spaces. Similarly, this study suffers from a small sample size and was drawn from one University's gamer guild. As a result, the conclusions of this study need to be examined with a larger and more heterogeneous sample to increase confidence in the validity of our findings.

Future research on this topic should aim address the above limitations and to obtain an accurate depiction of gameplay, either through recording people's play time or personally observing it, or through a potential lab experiment.

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