

Griefers versus the Griefed - what motivates them to play Massively Multiplayer Online Role-Playing Games?

Leigh Achterbosch¹, Charlynn Miller², Christopher Turville³, Peter Vamplew⁴

1 - 4: Address: Sch of Science, Information Technology and Engineering, Federation University, Ballarat, Victoria, Australia
1: e-mail: l.achterbosch@federation.edu.au

Abstract

'Griefing' is a term used to describe when a player within a multiplayer online environment intentionally disrupts another player's game experience for his or her own personal enjoyment or gain. Every day a certain percentage of users of Massively Multiplayer Online Role-Playing Games (MMORPG) are experiencing some form of griefing. There have been studies conducted in the past that attempted to ascertain the factors that motivate users to play MMORPGs. A limited number of studies specifically examined the motivations of users who perform griefing (who are also known as 'griefers'). However, those studies did not examine the motivations of users subjected to griefing. Therefore, the aim of this paper is to examine the factors that motivate the subjects of griefing to play MMORPGs, as well as the factors motivating the griefers.

The authors conducted an online survey with the intention to discover the motivations for playing MMORPGs among those whom identified themselves as (i) those that perform griefing, and (ii) those who have been subjected to griefing. A previously devised motivational model by Nick Yee that incorporated ten factors was used to determine the respondents' motivational trends. In general, players who identified themselves as griefers were more likely to be motivated by all three 'achievement' sub-factors (advancement, game mechanics and competition) at the detriment of all other factors. The subjects of griefing were highly motivated by 'advancement' and 'mechanics', but they ranked 'competition' significantly lower (compared to the griefers). In addition, 'immersion' factors were rated highly by the respondents who were subjected to griefing, with a significantly higher rating of the 'escapism' factor (compared with rankings by griefers). In comparison to the griefers, the respondents subjected to griefing with many years' experience in the genre of MMORPGs, also placed a greater emphasis on the 'socializing' and 'relationship' factors. Overall, the griefers in this survey considered 'achievement' to be a prime motivating factor, whereas the griefed players tended to be motivated by all ten factors to a similar degree.

Keywords: MMO, MMOG, MMORPG, griefing, griefer, online game, victim, virtual world

Article Information

Received: July 2013
Accepted: February 2014
Available: online April 2014

Copyright of the author(s) ©2014 • Reproduction rights owned by The Computer Games Journal Ltd ©2014

1: Introduction

The video game genre known as the Massively Multiplayer Online Role-Playing Game (MMORPG) consists of multiplayer role-playing games that are played online over the Internet in a persistent virtual world, with hundreds or even thousands of people concurrently connected to the same server. A persistent world is one that continues to operate (with other people enjoying what the world has to

offer), even when you log off and are not participating in it yourself. Players can log back in at any time and continue with their avatar at the point where they previously logged off. MMORPGs generally have quests or objectives with distinguishable goals, such as fighting enemies to gain experience, and accessory items that help to develop the player's character (avatar).¹

Every day in MMORPGs and online virtual worlds, at least some users are experiencing what is known as 'griefing'. This is when a player within a multiplayer online environment intentionally disrupts another player's game experience for his or her own personal enjoyment or gain. A 'griever' is the term given to the player that willingly causes this disruption. It was reported by the developer of the virtual world *Second Life* (Linden Labs, 2003) that 6.5% of active users report abuse every month, with close to 2000 reports every day. This is in the context of *Second Life*'s user base of around 800,000 users (that had repeated logins during 2010). The Massively Multiplayer Online Role-Playing Game (MMORPG) genre consisted of a total population of over 21 million players in 2011. MMORPG plays were estimated to have spent over US\$12 billion in 2012 through subscriptions and in-game transactions.²⁻¹⁰

Studies performed by Nick Yee and associated researchers have focused on the factors that motivate people to play MMORPGs. More specifically, limited research has been conducted to explore the motivations of griefers themselves. Foo and Koivisto (2004) created a taxonomy of griever types in an attempt to define the action of griefing, with some motivations discovered for each type of griever. Foo (2008) went further by defining this taxonomy as a 'grief-play' motivational model. Schell (2008) described some mechanics of MMORPGs that griefers can find enjoyment in, while Chen *et al* (2009) discovered how anonymity enables the griever to blend in to the MMORPG community.^{2, 11-17}

Previous studies into MMORPG players' motivations have focused on either the general populace of MMORPGs, or they focused only on the griever. This paper uses the motivational model devised and refined by Yee, with the aim to identify not only the motivations for playing MMORPGs of the griever, but also the motivations of the players that are subjected to griefing in varying amounts and also how their motivations differ in comparison to those of griefers. Throughout this paper, those that perform griefing will be referred to as 'griefers', and those subjected to griefing will be referred to as 'griefed'. This study focuses on the motivations for playing MMORPGs, rather than the motivations causing grief.¹³

If developers of MMORPGs can begin to understand the motivations of the end-user in playing their games, perhaps they can design the mechanics of their virtual game worlds to better accommodate them. In developing *Guild Wars 2* (ArenaNet, 2012), the developer ArenaNet wanted to change the way the game mechanics of MMORPGs worked, in an effort to apply anti-griefing measures. In this, ArenaNet eradicated common MMORPG game mechanisms that are part of popular MMORPGs such as *World of Warcraft* (Blizzard Entertainment, 2004). Some game mechanics can be fun and engaging, but they may enable griefing - for example, 'mob camping' and 'ganking':¹⁸

- Mob Camping involves a player patiently waiting in one area (camping) for certain enemies (mobs) to appear so they can kill them for the rewards, or for their game quest. In *Guild Wars 2*, ArenaNet allowed all players involved in a fight to gain the rewards, not just the player that initiated the combat. In this way players are no longer fighting for enemies and resources. However this system can be exploited by attacking every enemy you see engaged with another player. As long as you meet the game mechanic conditions of about 5% damage applied, you can gain full reward, whilst letting other players do all the work.²
- Ganking involves players typically attacking weakened, defenceless or inexperienced players for an easy kill, to the other player's detriment. ArenaNet established two separate areas that

never intersect, one for player versus player (PvP) combat and one for player versus environment (PvE) combat (human players fighting programmed enemies), to divide these two diverse groups. However, some people like both forms of combat, and it can be an intense and exciting experience being attacked by another player under challenging conditions.^{16,19}

This paper examines the motivations for playing MMORPGs among varying demographics, and their association with griefing.

2: Research Design

2.1: The Motivational Model

Yee (2002) attempted to discover the motivational factors influencing why people play MMORPGs, using questions that were structured from Bartle's (1996) early work with a Multi-User Dungeon player type model, and from his own previous study (in 2001) of the MMORPG *EverQuest* (Sony Online Entertainment, 1999). He discovered five significant motivational factors from the data obtained: 'relationship', 'immersion', 'grief', 'achievement' and 'leadership'. In continuing this research, Yee further refined these five significant factors: 'relationship', 'immersion', 'manipulation', 'achievement' and 'escapism'.^{3,11-12,19}

Yee later revised the main motivational factors previously discovered to just three: 'achievement', 'social' and 'immersion'. A motivational model was formulated from this data to discover the motivations of the player to play MMORPGs. This three-factor model was later used to discover the demographics and motivations of MMORPG players. The three factors broken down into ten more manageable sub-factors are as follows:^{13,14}

Achievement

- Advancement - the desire to gain power, progress rapidly, and accumulate in-game symbols of wealth or status.
- Mechanics - having an interest in analyzing the underlying rules and system in order to optimize character performance.
- Competition - the desire to challenge and compete with others.

Social

- Socializing - having an interest in helping and chatting with other players.
- Relationship - the desire to form long-term meaningful relationships with others.
- Teamwork - deriving satisfaction from being part of a group effort.

Immersion

- Discovery - finding and knowing things that most other players don't know about.
- Role-Playing - creating a persona with a background story and interacting with other players to create an improvised story.
- Customization - having an interest in customizing the appearance of their character.
- Escapism - using the online environment to avoid thinking about real life problems.

2.2: Survey Design

A survey was developed in order to gather the data needed for this research from a wide audience of MMORPG players. In order to gather a large overarching viewpoint from a global audience, the survey was chosen over more intensive methods such as interviews. The intent of the survey was to discover what motivates those that initiate grieving (the grievers) (compared to those that are subjected to grieving (the grieved)) to play MMORPGs, using the previously established motivational model developed by Yee.¹³

First, a pilot survey was produced and circulated among students of the computer game degree at the Ballarat campus of Federation University, Australia. The pilot survey led to some restructuring and rewording, and was used to ascertain that Yee's model was a good fit in determining the motivations of grievers and the grieved, with regards to why they play MMORPGs.

The final survey that went live globally gave a description of the term 'grieving' as identified in this paper. It also described the ten motivational factors so that respondents had a full understanding of the survey terminology. This is provided in [Appendix A](#).

The survey questioned respondents on the full subset of ten motivational factors (with definitions provided), as well as gathering the respondents' demographics and their association to grieving. The motivational factors were scored by respondents from 'highly motivating' to 'zero motivation'. Association to grieving was broken down in to the amount of each - for example, performing, witnessing, and/or being subjected to the actions of grieving - in varying degrees from 'never' to 'always'. The full survey results are provided in the [Appendix B](#).

2.3: Survey Response

Many invitations to the survey were circulated via popular MMORPG forums, in which the invitation remained open for two months. These attracted 1188 respondents, of which 1028 had answered all questions and had completed the survey. These respondents were self-selected and gave consent to use their answers upon entering the survey.

2.4: Methodology

For every motivational factor, a backwards elimination regression was conducted to identify the best model that included any significant independent variables and their interactions. All lower order terms were included if interaction was present. All of the demographic variables, the players' association to grieving, and all interactions were examined against each and every one of the motivational factors in these regression procedures.

After obtaining the best model for each motivational factor, the significant variables and interactions were further analyzed using an analysis of variance (ANOVA) to further explain the nature of the effects present. Significant interactions were further analyzed using single effect tests of each category of one variable against the categories of another variable. Bonferroni corrections were used to adjust the p-values of the additional tests performed. Variables that were significant without interaction present were further analyzed using Tukey's post-hoc tests.

3: Results and Discussion

3.1: Demographics

Table 1 outlines the demographics of the respondents. The survey respondents' gender from this study was predominantly male (85.6%, N=1028). This value is within a few percent of results found in other studies (e.g. Griffiths *et al*, 2003; Parsons, 2005; Yee and Bailenson, 2007; Williams *et al*, 2008). The respondents were global, with larger concentrations residing in the United States (42.8%), the United Kingdom (9.6%), Australia (6.5%) and Canada (6.5%), with a large number aged between 22 and 30 (43.4%). The respondents were quite experienced with the MMORPG genre with the majority of them having played them for between 5 and 10 years. The number of hours played per week by the respondents was a little lower than some other studies (e.g. Williams *et al*, 2008), but this may be because of the amount of respondents that have been subjected to griefing, with the theory that this griefing impacts upon the hours they wish to play MMORPGs.^{14, 21-23, 25}

Table 1: Demographics

Gender		
Gender	n	%
Female	148	14.4
Male	880	85.6
Age		
Age range	n	%
16 to 17	91	8.9
18 to 21	246	23.9
22 to 30	446	43.4
31 and over	245	23.8
MMORPG Experience		
Value	n	%
Less than 2 years	91	8.9
2 to 5 years	233	22.7
5 to 10 years	508	49.4
More than 10 years	196	19.1
Hours of Play per Week		
Value	n	%
10 or less	407	39.6
11 to 20	267	26.0
21 to 30	194	18.9
31 and over	160	15.6

3.2: Comparing Motivational Studies

To establish that the data obtained is in line with other MMORPG studies, the mean value for each motivational factor was tested against gender (Table 2). The results indicate that males prefer Achievement over females (especially the desire to compete), whereas females prefer Social and Immersion factors, particularly role-playing and escaping real life. Similar patterns were reported in a study by Yee and William (2008) of a general MMORPG populace.¹⁴

Table 2: means and standard deviation of motivation factors by gender

Motivation factor		Male		Female	
		Mean	Standard deviation	Mean	Standard deviation
Achievement	Advancement	3.84	1.144	3.51	1.237
	Mechanics	3.76	1.159	3.36	1.207
	Competition	3.42	1.347	2.83	1.440
Social	Socializing	3.52	1.180	3.71	1.168
	Relationship	2.65	1.296	2.84	1.344
	Teamwork	3.61	1.184	3.66	1.175
Immersion	Discovery	3.79	1.221	4.04	1.166
	Role-playing	2.19	1.300	2.60	1.442
	Customization	3.52	1.296	3.86	1.265
	Escapism	3.28	1.426	3.70	1.383

3.3: Separating the Grievers from the Griefed

The survey respondents' association to grieving was broken down into (i) those who performed grieving (the grievers), and (ii) those who are subjected to grieving (the griefed). Respondents were regarded as grievers if they reported performing grieving on $\geq 50\%$ of their logged-in time. Grieving becomes a regular activity for these players, as much as (or more than) the defined goals of the game. A similar definition was used to define the griefed, as shown in the final rows of Table 3. Under these definitions, it was observed that there was only a small percentage of a difference between males and females who performed or were subjected to grieving. It should be noted that some players that regularly performed grieving were also regularly subjected to grieving, and in Figure 1 this is represented by the intersection between the two groups. For lack of any pre-defined terminology, this paper shall refer to the third group as 'intersectors' ($n=25$).

Table 3: Association to Grieving

How often does it happen while you are logged in to MMORPGs?		Performed grieving		Subjected to grieving	
		n	%	n	%
(Irregularly)	Never	305	29.7	30	2.9
	Very rarely	402	39.1	283	27.5
	On occasion	225	21.9	549	53.4
(Regularly)	About half of the time	41	4.0	87	8.5
	Most of the time	25	2.4	56	5.4
	All of the time	30	2.9	23	2.2
	TOTAL	96	9.3	166	16.1
Gender	Male Female	12 84	8.1 9.5	20 146	13.5 16.6

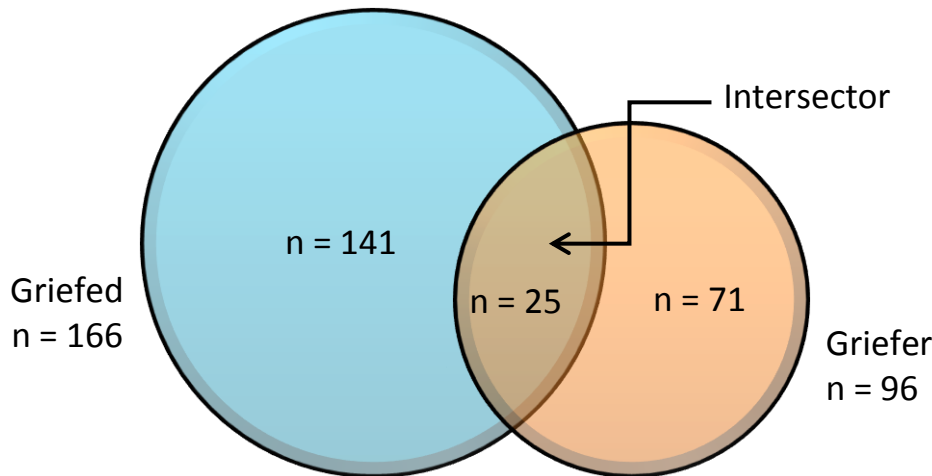


Figure 1: Association to Griefing

3.4: Grievers versus the Griefed - motivation

With the integrity of the data established, the primary intent of this paper may be explored. Rather than determining the motivational factors of the general MMORPG community (as has been achieved in some previous studies), this study identified the motivational factors in playing MMORPGs of the previously defined groups: grievers, griefed and intersector. This comparison was firstly separated by gender, as outlined in Table 4. 'Competition' was the highest-rated motivational factor among players of both genders who performed griefing. On average, grievers also rated the other two 'achievement' category motivation factors ('mechanics' and 'competition') higher than everything else. By contrast, those subjected to griefing regularly rated one of the 'immersion' categories as the highest motivation in playing MMORPGs, with 'customization' (the interest of customizing your avatar) usually ranked the highest. The two 'achievement' factors - 'advancement' and 'mechanics' - while not ranked the highest by the griefed, were still rated quite highly on average. In light of this, it appeared that both grievers and the griefed in this survey enjoyed advancing their character's power and virtual wealth as well as understanding the mechanics of the game, and are motivated by these aspects to continue playing MMORPGs.

Table 4: Means of motivation factors by gender and association to griefing

Motivation Factor		Performed griefing			Subjected to griefing		
		Female	Male	Both	Female	Male	Both
		(n=12)	(n=84)	(n=96)	(n=20)	(n=146)	(n=166)
Achievement	Advancement	3.67	3.70	3.70	3.45	3.84	3.79
	Mechanics	3.50	3.71	3.69	3.30	3.86	3.80
	Competition	4.42	4.25	4.27	3.05	3.39	3.35
Social	Socializing	3.50	3.31	3.33	3.55	3.60	3.59
	Relationship	2.92	2.44	2.50	2.90	2.86	2.86
	Teamwork	3.58	3.45	3.47	3.90	3.58	3.62
Immersion	Discovery	3.50	3.62	3.50	3.75	3.90	3.88
	Role-playing	2.92	2.05	2.16	2.60	2.29	2.33
	Customization	3.92	3.57	3.61	3.90	3.94	3.93
	Escapism	3.42	2.96	3.02	4.00	3.45	3.52

NB: 1 = not a motivating factor, 5 = a highly motivating factor. Values in bold indicate highest value for that demographic.

The motivational factors in playing MMORPGs of different age groups were analyzed against griefers and the grieved (Table 5). 'Competition' was regularly rated high among all age groups of griefers; it was ranked the highest by griefers aged 11 and over, and slightly less so by players under 11 years old. Grieved players (aged under 11, or over 30) valued 'immersion' categories highly, but those aged between 11 and 20 valued 'achievement' factors highly.

Table 5: means of motivation factors by age (bold white text) and association to grieving

Motivation Factor		Performed grieving				Subjected to grieving			
		<11	11-20	21-30	<30	<11	11-20	21-30	>30
		(n=12)	(n=30)	(n=39)	(n=15)	(n=20)	(n=49)	(n=63)	(n=34)
Achievement	Advancement	4.08	4.03	3.49	3.27	3.60	4.00	3.79	3.59
	Mechanics	3.33	3.97	3.77	3.20	3.80	4.02	3.71	3.62
	Competition	3.67	4.50	4.38	4.00	3.35	3.80	3.22	2.94
Social	Socializing	3.67	3.47	3.36	2.73	4.00	3.73	3.40	3.50
	Relationship	2.58	2.63	2.56	2.00	3.20	2.98	2.73	2.74
	Teamwork	3.00	3.63	3.69	2.93	3.65	3.43	3.71	3.71
Immersion	Discovery	3.75	3.70	3.67	3.13	4.15	3.71	3.78	4.15
	Role-playing	2.00	2.33	2.18	1.87	2.65	2.08	2.24	2.65
	Customization	3.42	3.80	3.41	3.93	3.75	3.94	3.79	4.29
	Escapism	2.83	2.83	3.00	3.60	3.50	3.57	3.54	3.41

NB: 1 = not a motivating factor, 5 = a highly motivating factor. Values in bold indicate highest value for that demographic.

Table 6 compares the motivational factors in playing MMORPGs among players that log in and play for different lengths of time per week in MMORPGs, versus their association to grieving. 'Competition' was the highest-rated motivational factor among all griefers who spent different amounts of time each week playing MMORPGs. The grieved players tended to value 'discovery' and 'customization' as the most motivational factors, irrespective of the number of hours spent playing MMORPGs.

Table 6: means of motivation factors by hours per week (bold white text) currently playing MMORPGs and association to grieving

Motivation Factor		Performed grieving				Subjected to grieving			
		<11	11-20	21-30	<30	<11	11-20	21-30	>30
		(n=34)	(n=21)	(n=21)	(n=20)	(n=60)	(n=40)	(n=41)	(n=25)
Achievement	Advancement	3.65	3.43	3.71	4.05	3.67	3.83	3.98	3.73
	Mechanics	3.24	3.86	4.29	3.65	3.70	3.72	4.07	3.68
	Competition	3.97	4.48	4.52	4.30	3.37	3.37	3.22	3.48
Social	Socializing	2.85	3.76	3.67	3.85	3.48	3.57	3.93	3.32
	Relationship	2.15	2.86	2.62	2.60	2.92	2.63	3.24	2.48
	Teamwork	3.26	3.81	3.43	3.50	3.58	3.47	3.90	3.48
Immersion	Discovery	3.53	3.71	3.52	3.70	3.90	3.87	4.27	3.20
	Role-playing	2.21	2.38	1.86	2.15	2.35	2.23	2.49	2.16
	Customization	3.35	3.71	3.81	3.75	3.80	3.90	4.10	4.04
	Escapism	2.82	3.24	3.05	3.10	3.37	3.43	3.56	3.96

NB: 1 = not a motivating factor, 5 = a highly motivating factor. Values in bold indicate highest value for that demographic.

Table 7 compares the motivational factors in playing MMORPGs, between griefers and the grieved with varying experience within the MMORPG genre (in amount of years having played MMORPGs). Once more it was observed that griefers valued 'achievement' highly, whereas grieved players tended to value 'immersion' highly.

Table 7: means of motivation factors by MMORPG experience in years (bold white text) and association to grieving

Motivation Factor		Performed grieving				Subjected to grieving			
		<2	2-5	5-10	>10	<2	2-5	5-10	>10
		(n=6)	(n=19)	(n=42)	(n=29)	(n=18)	(n=41)	(n=75)	(n=32)
Achievement	Advancement	4.33	3.42	3.81	3.59	3.67	4.05	3.83	3.44
	Mechanics	2.83	3.89	3.69	3.72	3.50	3.83	3.87	3.75
	Competition	3.83	3.74	4.52	4.34	3.22	3.37	3.45	3.16
Social	Socializing	2.50	3.37	3.67	3.00	3.17	3.56	3.64	3.75
	Relationship	2.17	2.47	2.76	2.21	2.39	2.88	2.87	3.09
	Teamwork	2.67	3.68	3.52	3.41	3.22	3.63	3.63	3.81
Immersion	Discovery	4.00	3.37	3.60	3.69	3.72	4.00	3.77	4.06
	Role-playing	2.83	1.89	2.19	2.14	2.83	2.54	2.08	2.34
	Customization	3.67	3.53	3.52	3.79	3.56	4.12	3.83	4.16
	Escapism	2.33	3.16	2.79	3.41	2.94	3.73	3.59	3.41

NB: 1 = not a motivating factor, 5 = a highly motivating factor. Values in bold indicate highest value for that demographic.

The ten motivational factors were analyzed individually to discover statistically significant differences between the respondents' demographics and their association to grieving using the methods described previously in this paper. The analysis confirmed that the number of hours per week that a respondent spent on playing an MMORPG (Table 6) had no significance to the value they placed on each motivational factor. This was also true for gender (Table 4), but it must be noted that there were only 12 regular female griefers from a pool of 148 female respondents (8.1%, n=148), and there were 20 female grieved players (13.5%, n=148). The low number of females may have contributed to the insignificant differences between gender, as the p value for the motivational factor 'escapism' was almost showing a statistical significant difference (p=0.081), as was 'role-playing' (p=0.085) between male and females. Further research with more female griefers will be needed to confirm whether or not there are significant differences between the genders, in terms of how they value escapism and role-playing.

In an effort to further analyse the players' rankings of 'competition', an analysis of variance and the interaction was conducted to explore the effect of age, association to grieving and their interaction. The interaction was significant between age and association to grieving (p=0.003), suggesting there are differences in how highly players rank 'competition' scores, and such differences exist between griefers and the grieved, and among different age groups. The single effect post-hoc analysis showed that among 16 to 17 year old players, the griefers' ranking of 'competition' was significantly higher than that by intersector (\bar{x} =3.67, s=1.723; and, \bar{x} =1.67, s=1.155, respectively) (p=0.040). Among 18 to 21 year olds, the 'competition' scores were higher for griefers (\bar{x} =4.50, s=0.861), compared to rankings by the grieved (\bar{x} =3.80, s=1.154) (p=0.032). Among 22 to 30 year olds, the grieved (\bar{x} =3.22, s=1.507) had lower 'competition' scores compared to scores by griefers (\bar{x} =4.38, s=1.091) and by intersector (\bar{x} =4.89, s=0.333) (p=0.000).

As shown in Appendix B, there was an indication that the more often the respondent performed grieving, the higher his or her ranking of 'competition'. Conducting an analysis of variance between respondents confirmed this pattern (p=0.000). Overall, this indicates that competition as a

motivational factor is valued considerably higher by griefers (and intersector) than by the grieved (especially those griefers who performed griefing more regularly) in the 18 to 30 year old age groups. However, there were no significant differences in the rankings of 'competition' by griefers and other groups among the older respondents.

A significant interaction between experience (the amount of time in years respondents had spent playing MMORPGs) and association to griefing was found for 'socializing' ($p=0.026$) and 'relationship' ($p=0.039$), indicating that there are differences between the grieved and other groups that depends on their amount of genre experience. The grieved ($\bar{x}=3.75$, $s=1.218$) had significantly higher 'socializing' scores than intersector ($\bar{x}=2.43$, $s=0.976$) but only if they possessed more than 10 years MMORPG experience ($p=0.024$). No significant differences were found for those with less experience. Similarly, the grieved ($\bar{x}=3.09$, $s=1.353$) had significantly higher 'relationship' scores than intersector ($\bar{x}=1.71$, $s=0.756$) but again, only if they possessed more than 10 years MMORPG experience ($p=0.028$). Almost of significance ($p=0.052$) was the pattern suggesting that the grieved ($\bar{x}=3.09$, $s=1.353$) had higher 'relationship' scores than griefers ($\bar{x}=2.21$, $s=1.346$). While no differences were found for those with less experience, conceivably more research and a larger sample size may determine whether this difference is real.

Within the 'immersion' category it was observed (Appendix B) that the more often respondents expressed that they were subjected to griefing, the higher their rating of 'customization'. This was also confirmed in an analysis of variance test ($p=0.002$). There are two possible hypotheses for this outcome:

1. The more that players enjoy customizing their in-game characters, the more attached they become, and therefore it is conceivable that they are more susceptible to griefing or more likely to regard other players' actions as griefing.²⁴
2. The way the player customizes an avatar may be a reason for the griefer to select it as a target of griefing.

Finally, in terms of the 'escapism' motivational factor, a statistically significant difference between griefers and the grieved ($p=0.006$) was found. The single effect post-hoc analysis indicated that the mean score for the grieved ($\bar{x}=3.52$, $s=1.404$) was significantly higher than that for the griefers ($\bar{x}=3.02$, $s=1.569$) ($p=0.019$). It is possible that the grieved respondents' desire for escapism from their real life concerns renders them more vulnerable to griefing and attacks within the game.

4: Conclusion

As expected, the respondents who identified themselves as players who performed griefing, were more likely to rate the motivational factor 'competition' higher than those who were subjected to griefing, due to the competitive nature of the former. The more often the respondent performed griefing, the higher his/her rating of 'competition' as a motivational factor. Similarly, the more often a player was subjected to griefing, the higher his/her ranking of 'customization'. The grieved players' mean rating of 'immersion' was higher than that by griefers, especially 'escapism', which was found to be significantly higher.

A less expected outcome was similar ranking of 'advancement' and 'mechanics' by griefers and grieved players. Therefore, it is possible that it is not just the griefers who wish to have powerful characters and who want to know the intricacies of the game mechanics. It may be the case that in order to 'stand a fighting chance' against the griefing disruptions to their game, grieved players aim to

accumulate power and understand how to use that power just as much as the griefers do. The difference is that the griefers in this study valued the 'achievement' factors higher than 'social' and 'immersion' categories, showing that their focus is to advance, learn the game mechanics and compete at the detriment of all other actions, in contrast to players who are subjected to griefing. It was discovered that grieved players in this study valued 'socializing' and 'relationship' more highly than the other categories. However, this was only significant for respondents who had played MMORPGs for more than 10 years.

Overall, the griefers in this study valued the 'achievement' factors more highly than other factors, whereas the grieved players made a more balanced valuation of the ten factors. The patterns discussed in this paper shall be explored in future research via interviews with griefers and grieved MMORPG players. It is hoped that the results will help MMORPG developers better understand their players, and design more stimulating game mechanics for all involved.

Acknowledgements

Leigh Achterbosch acknowledges the assistance of Grant Meredith in creating a survey suitable for a world-wide audience, and thanks Savin Chand for assisting with statistical calculations.

References

1. Achterbosch, L., Pierce, R. & Simmons, G. (2008) 'Massively Multiplayer Online Role-Playing Games: the Past, Present, and Future' *Computing Entertainment* 5(4), pp.9:1 - 9:33.
2. Foo, C.Y. & Koivisto, E.M.I. (2004) 'Defining Grief Play in MMORPGs: Player and Developer Perceptions' *Proceedings of the 2004 ACM SIGCHI International Conference on Advances in Computer Entertainment Technology*, New York, NY, USA, pp. 245-250.
3. Bartle, R.A. (2007) 'What to call a Griefer?' *Terranova*. Available from: http://terranova.blogs.com/terra_nova/2007/10/what-to-call-a-.html [accessed 10 May 2012]
4. Adrian, A. (2010) 'Beyond Griefing: Virtual Crime' *Computer Law & Security Review* 26(6) pp.640-648.
5. Lin, H. & Sun, C. (2005) 'The "White-eyed" Player Culture: Grief Play and Construction of Deviance in MMORPGs' *Changing Views: Worlds in Play: Proceedings of the 2005 Digital Games Research Association Conference*, Vancouver, British Columbia, Canada.
6. Chesney, T., Coyne, I., Logan, B. & Madden, N. (2009) 'Griefing in Virtual Worlds: Causes, Casualties and Coping Strategies' *Information Systems Journal* 19(6) pp.525-548.
7. Linden, N. (2011) *The Second Life Economy in Q4 2010*. Available from: <http://community.secondlife.com/t5/Featured-News/The-Second-Life-Economy-in-Q4-2010/ba-p/674618> [accessed 20 March 2012]
8. MMO Data (2011) *MMOData Charts*. Available from: <http://www.mmodata.net/> [accessed 29 July 2011].
9. Hartman, M. (2011) *MMO Subscriber Populations*. Available from: <http://www.brighthub.com/video-games/mmo/articles/35992.aspx> [accessed 7 February 2011].
10. SuperData & Newzoo. (2012) *Global MMO Games Spending Exceeds \$12bn*. Available from: <http://www.newzoo.com/press-releases/global-mmo-games-spending-exceeds-12bn/> [accessed 14 October 2012]

11. Yee, N. (2002) *Facets: 5 Motivational Factors for Why People Play MMORPGs*. Available from: <http://www.nickyee.com/facets/home.html> [14 April 2011]
12. Yee, N. (2006a) 'The Demographics, Motivations, and Derived Experiences of Users of Massively Multi-User Online Graphical Environments' *Presence: Teleoperators and Virtual Environments* 15(3) pp.309-329.
13. Yee, N. (2006b) 'Motivations for Play in Online Games' *CyberPsychology & Behavior* 9(6) pp.772-775.
14. Williams, D., Yee, N. & Caplan, S.E. (2008) 'Who Plays, How Much, and Why? Debunking the Stereotypical Gamer Profile' *Journal of Computer-Mediated Communication* 13(4) pp.993-1018.
15. Foo, C.Y. (2008) *Grief Play Management*. VDM Verlag, Germany.
16. Schell, J. (2008) *The Art of Game Design: A Book of Lenses*. 1st Ed, Morgan Kaufmann Publishers, Massachusetts, United States.
17. Chen, V.H., Duh, H.B. & Ng, C.W. (2009) 'Players Who Play to Make Others Cry: the Influence of Anonymity and Immersion' *Proceedings of the International Conference on Advances in Computer Entertainment Technology*, New York, NY, USA, pp.341-344.
18. Procopio, R. (2011) *Massive: Guild Wars 2 - Reinventing a Genre*. Available from: <http://www.unwinnable.com/2011/03/24/massive-guild-wars-2-reinventing-a-genre/> [accessed 26 March 2011]
19. Yee, N. (2001) *The Norrathian Scrolls: a Study of Everquest* (version 2.5). Available from: <http://www.nickyee.com/eqt/demographics.html> [accessed 20 January 2013]
20. Goguen, S. 2009, 'Dual Wielding Morality: World of Warcraft and the Ethics of Ganking' *Proceedings of The Philosophy of Computer Games Conference 2009*, Oslo, Norway.
21. Bartle, R.A. (1996) 'Players Who Suit MUDs' *Journal of MUD Research* 1(1)
22. Griffiths, M., Davies, M. & Chappell, D. (2003) 'Breaking the Stereotype: the Case of Online Gaming' *Cyberpsychological Behavior* 6(1) p81.
23. Parsons, J.M. (2005) *An examination of Massively Multiplayer Online Role-Playing Games as a Facilitator of Internet Addiction*. PhD thesis, University of Iowa, University of Iowa.
24. Ducheneaut, N., Wen, M., Yee, N. and Wadley, G. (2009) 'Body and Mind: A Study of Avatar Personalization in Three Virtual Worlds.' *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, Boston, MA, USA, pp.1151-1160.
25. Yee, N. & Bailenson, J.N. (2007) 'The Proteus Effect: The Effect of Transformed Self-Representation on Behavior' *Human Communication Research* 33 pp.271-290.

Ludography

ArenaNet (2012). *Guild Wars 2*. NCsoft.
 Blizzard Entertainment (2004). *World of Warcraft*. Blizzard Entertainment.
 Linden Labs (2003). *Second Life*. Linden Labs.
 Sony Online Entertainment (1999). *EverQuest*. Sony Online Entertainment.

APPENDIX A

Survey Questions

1. Gender:
 - a. Female
 - b. Male
2. Age:
 - a. 16 to 17
 - b. 18 to 21
 - c. 22 to 30
 - d. 31 and over
3. Country of Residence:
 - a. Drop down list containing 249 Countries to choose from.
4. How many hours per week do you currently play MMORPG(s)?
 - a. Less than 10
 - b. 11 to 20
 - c. 21 to 30
 - d. More than 30
5. How long have you been playing MMORPG(s)?
 - a. Less than 2 years
 - b. 2 to 5 years
 - c. 5 to 10 years
 - d. More than 10 years
6. What motivates you to play MMORPG(s)? Please score the following ten factors of what motivates you to play MMORPG(s) from 1 to 5.
 1 = this factor does not motivate me at all. to 5 = this is a very high motivating factor.
 - a. Advancement - The desire to gain power, progress rapidly, and accumulate in-game symbols of wealth or status.
 - b. Mechanics - Having an interest in analyzing the underlying rules and system in order to optimize character performance.
 - c. Competition - The desire to challenge and compete with others.
 - d. Socializing - Having an interest in helping and chatting with other players.
 - e. Relationship - The desire to form long-term meaningful relationships with others.
 - f. Teamwork - Deriving satisfaction from being part of a group effort.
 - g. Discovery - Finding and knowing things that most other players don't know about.
 - h. Role-Playing - Creating a persona with a background story and interacting with other players to create an improvised story.
 - i. Customization - Having an interest in customizing the appearance of their character.
 - j. Escapism - Using the online environment to avoid thinking about real life problems.
7. Please identify how often the following statements apply to you while logged in to an MMORPG:
 Never | Very rarely | On occasion | About half of the time | Most of the time | All of the time
 - a. I have been subjected to griefing
 - b. I have performed griefing
 - c. I have witnessed griefing

APPENDIX B

Motivation Factors by Association to Griefing							
Motivation Factor		Performed Griefing			Subjected to Griefing		
		Amount	Mean	Std. Dev	Amount	Mean	Std. Dev
Achievement	Advancement	Very rarely	3.87	1.069	Very rarely	3.81	1.187
		On occasion	3.91	1.134	On occasion	3.78	1.139
		About half of the time	3.76	1.280	About half of the time	3.85	1.040
		Most of the time	4.04	1.428	Most of the time	3.84	1.218
		All of the time	3.33	1.668	All of the time	3.43	1.590
	Mechanics	Very rarely	3.72	1.128	Very rarely	3.67	1.221
		On occasion	3.77	1.141	On occasion	3.70	1.121
		About half of the time	3.76	1.019	About half of the time	3.70	1.142
		Most of the time	3.68	1.492	Most of the time	4.02	1.213
		All of the time	3.60	1.380	All of the time	3.61	1.559
	Competition	Very rarely	3.30	1.323	Very rarely	3.38	1.384
		On occasion	3.88	1.211	On occasion	3.31	1.359
		About half of the time	4.15	1.108	About half of the time	3.23	1.370
		Most of the time	4.60	.913	Most of the time	3.50	1.465
		All of the time	4.17	1.315	All of the time	3.43	1.472
Social	Socializing	Very rarely	3.62	1.144	Very rarely	3.46	1.232
		On occasion	3.59	1.154	On occasion	3.60	1.130
		About half of the time	3.61	1.070	About half of the time	3.60	1.146
		Most of the time	2.96	1.241	Most of the time	3.70	1.127
		All of the time	3.27	1.596	All of the time	3.30	1.579
	Relationship	Very rarely	2.83	1.271	Very rarely	2.49	1.278
		On occasion	2.70	1.298	On occasion	2.76	1.293
		About half of the time	2.61	1.222	About half of the time	2.79	1.365
		Most of the time	2.52	1.447	Most of the time	3.00	1.265
		All of the time	2.33	1.422	All of the time	2.78	1.506
	Teamwork	Very rarely	3.64	1.123	Very rarely	3.52	1.247
		On occasion	3.63	1.207	On occasion	3.67	1.151
		About half of the time	3.73	1.162	About half of the time	3.82	1.051
		Most of the time	3.12	1.236	Most of the time	3.55	1.190
		All of the time	3.40	1.499	All of the time	3.04	1.492
Immersion	Discovery	Very rarely	3.84	1.176	Very rarely	3.73	1.269
		On occasion	3.76	1.277	On occasion	3.88	1.162
		About half of the time	4.00	1.323	About half of the time	3.93	1.169
		Most of the time	3.36	1.497	Most of the time	3.93	1.234
		All of the time	3.27	1.437	All of the time	3.57	1.472
	Role-Playing	Very rarely	2.24	1.293	Very rarely	2.20	1.347
		On occasion	2.13	1.322	On occasion	2.25	1.288
		About half of the time	2.41	1.643	About half of the time	2.47	1.421
		Most of the time	2.12	1.481	Most of the time	2.21	1.436
		All of the time	1.83	1.289	All of the time	2.04	1.397
	Customization	Very rarely	3.61	1.247	Very rarely	3.36	1.373
		On occasion	3.47	1.313	On occasion	3.58	1.287
		About half of the time	4.00	1.466	About half of the time	3.89	1.224
		Most of the time	3.36	1.319	Most of the time	3.96	.914
		All of the time	3.30	1.343	All of the time	4.04	1.261
	Escapism	Very rarely	3.45	1.392	Very rarely	3.05	1.480
		On occasion	3.31	1.436	On occasion	3.47	1.375
		About half of the time	3.00	1.565	About half of the time	3.59	1.317
		Most of the time	2.76	1.480	Most of the time	3.30	1.476
		All of the time	3.27	1.660	All of the time	3.78	1.536