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Griefing in virtual worlds: causes, casualties and coping strategies

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Abstract. *A virtual world is a computer-simulated three-dimensional environment. They are increasingly being used for social and commercial interaction, in addition to their original use for game playing. This paper studies negative behaviour, or 'griefing', inside one virtual world through a series of observations and focus groups with users. Data were collected to identify griefing behaviours and their impact, examine why griefing happens and who the likely targets and perpetrators are, and suggest strategies for coping with it. Findings show that griefing behaviour is common. It is defined as unacceptable, persistent behaviour and is typically targeted at inexperienced residents by those with more knowledge of the virtual world. Community and individual coping strategies are identified and discussed.*

Keywords: antisocial behaviour, virtual worlds, interpretative phenomenological analysis

INTRODUCTION

A virtual world is a computer-simulated three-dimensional environment in which individuals interact. On screen, users are represented by an avatar. The concept began as a platform for game playing but has emerged into a more general mode of social and commercial interaction. Already, some commentators are predicting that three-dimensional environments will become the dominant means to access information over the internet in the future (Castronova, 2001; Gartner, 2007). Such claims have been made before about new technologies, and they have not always been borne out (see for example, Grant *et al.*, 2006). However, a growing user base and the nature of the interaction make virtual worlds social phenomena worthy of study (Castronova, 2005).

One popular virtual world is Linden Lab's Second Life (http://secondlife.com). Second Life is making an impact in popular culture, business and education. For example musically, Duran Duran plan to hold concerts there (Lombardi, 2006) and Suzanne Vega already has (Suzannevega.com, 2006). Commercial organizations such as IBM, Nissan, Starwood Hotels & Resorts and Toyota have, or have had, buildings in Second Life (Rushe, 2006; Fass, 2007). Many universities now have a presence there (SimTeach, 2007), for instance, Edinburgh University run an e-learning degree in part using Second Life (Farrar, 2006; see also http://www.education.ed.ac.uk/e-learning/). Even entire countries are getting involved. Sweden has opened an embassy there (BBC, 2007) to provide information about the country.

Second Life has also begun to attract the attention of social scientists. Bainbridge (2007) suggests that the environment can be used to create social science laboratories to run 'in-world' experiments, 'in-world' meaning inside Second Life. Second Life is appropriate in studying virtual world interaction for two reasons. One, it is not a game. There is no overall objective (or series of objectives) that typifies other virtual worlds such as World of Warcraft, which is a fantasy role-play game. Rather than being a game, Second Life is more an 'arena of creativity' – Linden Lab has set up an environment for users which enables them to do whatever they can imagine. Consequently, and the second reason it is suitable; Second Life allows for the creation of objects and scenarios (such as a social science laboratory) that would be more difficult to do in, say, World of Warcraft.

This paper examines one form of interaction within Second Life – 'griefing', which in online communities loosely means unacceptable behaviour. The objectives are to:

1 identify griefing behaviours in Second Life as representative of virtual worlds and examine similarities and/or differences with behaviours seen in other contexts (e.g. school or workplace);
2 examine the perceptions of victims on the impact of such behaviour;
3 assess potential reasons why griefing occurs and possible options to combat such behaviour; and
4 attempt to quantify who the likely targets and perpetrators are.

If virtual worlds do continue to become more popular, then an understanding of why griefing occurs and how best to deal with it becomes an important issue. In extreme cases, griefing has led to tragedy. This can be seen by looking to behaviours similar in nature to griefing that have happened outside of Second Life: on 7 Oct 2003, 13-year-old Ryan Halligan took his own life after being the victim of cyberbullying (Halligan, 2005), a term that is examined later in this paper; in November 2001, 21-year-old Shaun Woolley shot himself, some suggest that this was because of events that took place in the virtual world Everquest, although it is unclear what these events were (Spencer, 2002); in China, authorities have introduced a limit on the amount of time that players can spend in virtual worlds, after one user was murdered by another because of the theft of a virtual sword (Warner & Raiter, 2005).

BACKGROUND AND CONTEXT OF THE STUDY

Second Life (Figure 1) is one of a growing number of virtual worlds. Getting data on user numbers is troublesome, with often a substantial difference between the number of registered users and number of active users. In addition, some users register multiple accounts. However, at the time of writing (January 2009), there are over 16 million registered accounts. Studies suggest that at any time, around 30 000 people are in Second Life, and the world clocks up an estimated 20 million user hours every month (Chesney *et al.*, 2009). The majority of users are from the US and European Union, and are aged between 18 and 34 years (see Table 1). Further details can be found at http://secondlife.com/whatis/economy.php.

Second Life is divided into different 'geographical' sectors which have topographical features such as rivers, mountains and beaches, and objectified flora and fauna. Avatars are able to walk, run and fly through the world. Communication is mostly by text, both public and private, although voice input/output has recently been introduced, and avatars can also communicate by limited body language – yawning or pointing, for instance. Public chat is received by other avatars in the immediate vicinity.

Users can edit their avatar any way they wish. As a result, Second Life is populated by humans, animals, fantasy creatures and a variety of objects. Second Life has its own currency, the Linden dollar (L$) which can be bought and sold. Around L$250 is worth USD1.

According to Linden Lab Chief Executive Officer Philip Rosedale, Second Life is in direct competition with 'real' life (Rushe, 2006), also known as 'First Life', which is the preferred term and the one that is used throughout this paper. With this in mind, a resident can do common activities in Second Life such as fishing, skydiving, jet skiing, shopping, getting married and even raising children. As alluded to in the Introduction, this makes Second Life fundamentally different from other gaming virtual worlds. Users adopt a gaming world solely for hedonic

Figure 1. Second Life. In the picture on the left, the avatar in the middle is about to say something; this is known because his hands are lifted up and he appears to be typing on an invisible keyboard, the Second Life animation to show someone is typing text. The picture on the right shows a typical Second Life scene; four avatars are shown – an octopus, a humanoid cat and two humans, one lying on the bench.

Table 1. Second Life user statistics, taken from Chesney *et al.* (2009)

Country	Percentage of residents
United States	31.19
France	12.73
Germany	10.46
United Kingdom	8.09
Netherlands	6.55
Spain	3.83
Brazil	3.77
Canada	3.30
Belgium	2.63
Italy	1.93
Australia	1.48
Switzerland	1.29
Japan	1.29
Sweden	0.95
Denmark	0.88
Age band	**Percentage of active users**
13–17 (Teen grid)	1.24
18–24	27.46
25–34	38.78
35–44	21.00
45+	11.52

Note that the Teen Grid is entirely separate from the main grid and inaccessible to the authors; therefore, no one of this age was involved in the study. The average age of main grid residents is 33.

reasons (such as those studied by Van der Heijden, 2004), whereas Second Life is used for both utilitarian reasons (commercial and educational) and hedonic reasons. In this respect, Second Life griefing (and in fact, other Second Life behaviours) deserves attention separate from griefing inside gaming worlds, where some work has already started (see for instance: Foo & Koivisto, 2004; Kuecklich, 2004; Smith, 2004). From an information systems (IS) point of view, it may be more important to consider Second Life because if three-dimensional interfaces do become ubiquitous, they will probably be closer to Second Life than to gaming worlds. Already, some companies are experimenting with using Second Life as a platform to facilitate group work (Ward, 2007). As an example of the direction Linden Lab may be planning for their technology, Jeff Bezos, the founder of Amazon, is one of the financial backers of Second Life, and Philip Rosedale has pointed out that whenever someone visits Amazon, there are thousands of other shoppers on the site with them. He has expressed opinion that it would be a good thing if all those shoppers could both see and interact with each other (Rushe, 2006).

Like other communication channels, Second Life can be characterized according to its 'richness' (Daft & Lengel, 1986). Richness is determined by a medium's ability to transmit

non-verbal cues, varied language and a sense of personalness, and provide immediate feedback (Fulk *et al.*, 1995). Daft *et al.* (1987) present a media richness hierarchy that incorporates four media classifications: a face-to-face meeting, a telephone call, addressed documents such as a letter, and unaddressed documents such as a notice on a bulletin board. The authors claim that users should choose the communication medium that has the correct richness for the information that needs to be communicated. This 'correct richness' depends on message ambiguity – essentially, they claim that a potentially ambiguous message needs a richer medium. Support for whether a potentially ambiguous message needs a richer medium is mixed. An alternative idea is based on media features, but it would seem that media choice is not as simple as richness versus features, and that there is a complex interplay of factors at work. In an examination of this issue, El-Shinnawy & Markus (1998) look at email and voice mail and find little support for either theory. However, an examination of Second Life's richness and features is helpful to position the technology. Second Life's richness is high, and it can be placed below a face-to-face meeting, but above a telephone call – voice input/output makes Second Life as rich as a phone call, plus it has additional visual cues such as body gestures. Second Life's feature list (as a communication channel) is also high and varied. The technology is capable of approximating instant messaging, email, a telephone call, limited body language and other visual cues (a chart could easily be displayed on a surface and pointed to, for example). The richness of Second Life, and the features it offers, supports Rosedale's assertion that Second Life is trying to approximate First Life. Therefore, we might look to First Life bullying, harassment and abuse to gain insight into Second Life griefing, as well as the literature on cyberbullying and griefing in multi-player computer games. Existing work on the causes, casualties and coping strategies of these behaviours is now examined.

Bullying, cyberbullying and griefing

The definition of bullying is not universally agreed but is usually characterized by aggressive behaviour in a relationship of imbalanced power, which happens over a prolonged period of time (Olweus, 1991; Smith & Thompson, 1991). The imbalance of power often comes from the victim being physically weaker, by being outnumbered, or by being subordinate in an organizational hierarchy. Bullying takes place in relatively social groups in which the victim has little possibility of avoiding their tormentors (Salmivalli *et al.*, 1996). Some writers make a distinction between direct (overt) bullying and indirect (covert, relational) bullying (van der Wal *et al.*, 2003). Direct bullying describes all physical and verbal aggression such as hitting, kicking, making threats and throwing insults. Indirect bullying forces the victim into social isolation by ignoring them, spreading rumours and talking about them behind their back (Rivers & Smith, 1994).

Bullying has been identified in almost identical form, all over the world (Smith & Brain, 2000). In the literature on aggressive behaviour, the term harassment encompasses bullying but is wider in scope (Rayner & Hoel, 1997). The most common form in the literature is sexual harassment, defined generally as the unwanted and unwelcome behaviours of a sexual nature that make the victim feel uncomfortable (see http://www.equalityhumanrights.com for a legal

definition). Often, no objective measure of what exactly does and does not constitute harassment can be made, but it is assumed that people 'know it when they see it' (Rotundo *et al.*, 2001).

The term abuse means to treat someone (or something) in such a way as to cause harm. It encompasses many of the same elements of bullying and harassment, and, depending on your point of view, harassment can be seen as a form of abuse, or abuse as a form of harassment. In the mind of many people, abuse is more serious than harassment, and the distinction between the two is one of severity, although this is not universally accepted. Unlike bullying, abuse can be a one off event (for instance, saying something offensive to a stranger), or prolonged (as would be the case in stalking). It is not universally agreed which of these applies to harassment (Brodsky, 1976).

There are a number of distinctions between bullying, harassment and abuse, and Second Life griefing. For one, with griefing, the bully is not physically present, which may make it seem less threatening. In addition, the griefer will not normally know the identity of the user they are griefing and vice versa. The victim can end the grief at any time by (1) disconnecting from Second Life; (2) moving to a private area; and (3) entering the world with a new avatar. However, by doing these, the victim is denying themselves, respectively, (1) access to the world; (2) access to a part of the world; and (3) access to their original avatar and the reputation built up in its name.

Second Life griefing is closest to cyberbullying. For example, in schools, rumours are often spread by mobile phone text messaging rather than notes in class, mobile phones are used to take and share pictures from changing rooms, and websites such as (the now defunct) schoolscandals.com are used to spread vicious gossip (Paulson, 2003). These types of activities are often grouped under the label 'cyberbullying'. Cyberbullying has been described as '[a]n aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself' (Smith *et al.*, 2008). These electronic forms of contact include email, instant messages, text messages, blogs and websites. Although the bully may not be physically present, they are potentially able to reach their victim at any time and copies of exchanges can reach a wide audience. A term related to cyberbullying is flaming, the act of an online community sending negative messages, 'flames', to someone who has broken implicit or explicit rules. There is no agreed definition of what constitutes a flame, leaving some to simply state 'flaming is in the eye of the beholder' (Thompsen & Foulger, 1996); however, often, authors agree that it is characterized by profanity, obscenity and insults that inflict harm (Reinig *et al.*, 1998; Alonzo & Aiken, 2004). Flaming is not always considered to be cyberbullying as a flame is not necessarily intended to be destructive but may be a genuine attempt by the flamer to educate others (McKee, 2002).

Some work has examined unacceptable behaviour in multi-player computer games, which is also sometimes known as griefing (the term is not unique to Second Life). What constitutes computer game griefing is different from Second Life griefing – for instance, killing another player is allowed, even encouraged in many gaming worlds, whereas attacking another resident in Second Life can result in a ban. Even so, this work may provide insight here.

In one of the earliest and most comprehensive examinations of why people play multi-player online games, Yee (2002) lists 'grief' (or competing unfairly) as a motivation. Griefing in multi-player games has been defined as '[i]ntentional harassment of other players . . . which utilizes aspects of the game structure or physics in unintended ways to cause distress for other players' (Warner & Raiter, 2005, p. 47). Some authors and, indeed, some gamers themselves simply equate griefing with cheating, which is to say, anything within the game's rules is acceptable, but behaviour outside of this, such as exploitation of loopholes (or bugs) in the environment, is griefing. Such loopholes do exist – Guest (2007) tells of one Everquest 2 player who found that he was able to buy an item, make multiple copies of it and sell it to as many buyers he could find. The view that griefing equals cheating is not universally accepted; as Foo & Koivisto (2004) point out, killing another player may be within the rules, but repeated killing of the same character would be considered griefing.

Second Life does in fact have a set of community standards that could be analogous to a game's rules. Known as the Big Six (see: http://secondlife.com/corporate/cs.php for more detail), they are the behaviours that are forbidden and are:

1 Intolerance; this is defined as actions that marginalize, belittle or defame individuals or groups.
2 Harassment; examples are communicating or behaving in a manner which is offensively coarse, intimidating or threatening, making unwelcome sexual advances.
3 Assault; this is the equivalent of First Life physical abuse and in-world, it means to push a resident.
4 Disclosure; this is perhaps seen as the most serious and refers to disclosing information about a user (such as their First Life name or First Life location).
5 Indecency; this could be swearing, nudity or the depiction of sex or violence in a so-called 'PG zone'.[1]
6 Disturbing the peace; examples include repeated transmission of undesired advertising content, the use of repetitive sounds, or other objects that intentionally slow server performance.

It should be noted that not all six apply universally throughout Second Life, for instance, in areas where fighting games are played, or mature areas where sexual content is allowed. When a resident breaks the Second Life community standards, or the terms of service, another resident can file an abuse report – a short description of the incident which is sent to Linden Lab customer service. Toward the end of 2006, Linden Lab received close to 2000 abuse reports every day (Daniel Linden, 2006). About 6.5% of logged-in residents report abuse each month (Second Opinion, 2006). Abuse reports can lead to account suspension.

Considering the impact of these behaviours, a substantial amount of research has found that victims of school and workplace bullying experience negative well-being (e.g. Boulton & Smith, 1994; Niedl, 1996; Hawker & Boulton, 2000; Hoel *et al.*, 2004). Negative outcomes have also emerged for individuals experiencing cyberbullying (e.g. Ybarra, 2004; Patchin &

[1]Nudity, sexual content and profanity are not allowed in a PG zone.

Hinduja, 2006; Ybarra *et al.*, 2006). Most of the work in this area has focused on school cyberbullying, and, therefore, the victims are young (recall from Table 1, all users of the Second Life main grid where the research was conducted, are 18 or older). Victims have reported being frustrated and angry, and claim an impact on home and school life (Patchin & Hinduja, 2006). In the workplace, both Overell (1998) and Welch (1997) found that receiving flame messages can increase stress-related illness. In a study of bullying (including cyberbullying) in the workplace, Baruch (2005) showed that the negative outcomes of bullying exist regardless of the communication medium (face-to-face or email); outcomes such as an increase in anxiety, an intent to leave the organization and a decrease in job satisfaction and performance were all evident.

Motivations of cyberbullies and griefers

Across the school and workplace bullying domains, explanations for the causes of such behaviour have tended to focus on organizational and individual/social factors. These explanations could be useful when thinking about why griefing occurs. Fitzgerald *et al.* (1997) examined the antecedents of sexual harassment in organizations. They found it to be a function of two factors: organization factors that communicate tolerance of harassment, and job characteristics such as gender ratio and nature of job tasks. An organization that is perceived by its employees to tolerate harassment will breed harassment, and females are more likely to be harassed in jobs where they are in a minority or doing tasks traditionally performed by men. Smith *et al.* (2003) suggest that in both school and working contexts, the culture of the organization and the structure/management of day-to-day activities play a role in bullying. For example, organizations where clear-cut procedures are not in place, where management responsibility is unclear and where management are poor conflict resolvers are breeding grounds for bullying (Einarsen *et al.*, 1994; Vartia, 1996; Seigne, 1998; Einarsen, 1999). However, individual factors have also been shown to play a contributory role in workplace bullying with researchers suggesting that low self-esteem, unassertiveness, introversion, lack of friends and sociometric rejection may pre-dispose an individual to be a target of bullying (Coyne *et al.*, 2000; Hawker & Boulton, 2000). Individual characteristics have also been researched in relation to perpetrator pre-disposition (e.g. Ashforth, 1994; Seigne *et al.*, 2007).

The Second Life environment might also contribute to negative behaviour. A lot of work on why negative behaviour may manifest itself during Computer Mediated Communication (CMC) has focused on the notion of deindividuation and may explain why someone who would not bully in First Life, might grief in Second Life. The literature in this area has discussed how people write comments to online fora (Alonzo & Aiken, 2004), blogs (Chesney, 2005), personal web pages (Stern, 1999) and flame messages (Grosvenor, 1998) containing content that, it is reported, they would never speak out loud to someone standing in front of them.

Deindividuation theory (Festinger *et al.*, 1952) proposes that when individuals are submerged in a crowd, their identifiability is lowered and their consideration of the consequences of their actions is diminished so that they lack accountability. When applied to CMC

in Second Life, the theory suggests that when people enter the world, they feel anonymous and detached from First Life; they will be less inhibited and say and do things they would not say and do in First Life. Joinson (2001) studied the impact of visual anonymity on CMC, which is relevant to Second Life as residents cannot see each other, they can only see each others' avatars. When participants were visually anonymous, they exhibited higher levels of self-disclosure. Joinson's explanation for this is that, with visual cues (i.e. when participants can see each other), there is heightened public self-awareness, which leads to relative social inhibition, whereas with no visual cues, there is heightened private self-awareness, which leads to increased self-disclosure. This is especially true when coupled with a reduction in self-presentation concerns (communicators do not have to worry about how they look). Reduced social cues theory models behaviour during communication as being dependent on social context cues such as nodding in agreement or looking sceptical (Joinson, 2003). The theory predicts that removing social cues, such as all aspects of identity, will allow communication to be more 'free' and social standards will become less important (Kiesler *et al.*, 1984). This is because the attention of those involved in the communication will not be split between the message and each other but will be entirely focused on the message. If social context cues are weak, communication will be weakly regulated and behaviour will be less inhibited (Joinson, 2003).

However, the situation appears more complicated than this. Postmes *et al.* (1998) conducted a meta-analysis of 60 deindividuation studies and concluded that no support was found for increased anti-normative behaviour due to deindividuation. That is, CMC does not lead to less inhibited communication. However, it may affect communication. In fact, Postmes' meta-analysis showed that deindividuated individuals complied more strongly with the situational norm than individuals who were identifiable. This means that deindividuated individuals will tend to go along with group behaviour, whereas individuals who are identifiable tend not to go along with the norm so readily. Reicher (1982) predicted this finding and argued that anonymity does not make an individual lose awareness of their identity but shifts their awareness away from personal identity to social identity. An individual's social identity is them perceiving themselves as part of a social group. Someone whose awareness is focused on his social identity will take on the group's norms and behave in a manner accepted by the group. These ideas have been formulated into the Social Identity model of Deindividuation Effects (SIDE) for interaction via computers. SIDE depends on the assumption that a unique personal self is the basis of all rational action and that CMC can serve to impede the operation of such selfhood (Reicher *et al.*, 1995). SIDE has some empirical support (for example, Douglas & McGarty, 2002). How the group norms and rules develop in the first place is determined, in part, by the technology itself and, in part, by how the group uses the technology (Poole & DeSanctis, 1990).

Second Life is a new technology to many users, who have never met one another and are anonymous to one another, and use is non-mandatory. We can picture these group norms developing over time within and between groups of users and the judgement of whether behaviour is acceptable or unacceptable stemming from these norms. According to SIDE, new users are drawn into, or accept, these norms through deindividuation.

Coping strategies

Like the rest of the literature on bullying, research looking at the coping strategies of victims is split between school bullying and workplace bullying. Coie *et al.* (1991) listed the strategies 7–9-year-old male victims can use as: escalating the aggression, defending oneself, attempting to resolve the conflict, ignoring the bully and submitting to the bully. Submission was most common, with defending as the second most frequent response. Salmivalli *et al.* (1996), studying older children (12–13), found three strategies – counter-aggression (standing up to the bully), helplessness and nonchalance (acting like they do not care). Actions of teachers (who in Second Life might be considered analogous to Linden Lab or possibly onlookers) in response include ignoring the incident, facilitating peer resolution, discussing the incident with the entire class, telling the victim to 'be tough', comforting the victim and reporting the incident to a higher authority (Bauman & Del Rio, 2006). Limper (2000, p. 128) outlines the following strategies:

1 Help for the child who is being bullied in the form of advice and (in some cases) social skills training.
2 Help for the bully in the form of social skills training or a course in coping with aggression.
3 Help for the silent majority in the form of mobilizing this group.
4 Help for the teacher, providing background information about the phenomenon, such as signs, causes, consequences and concrete (preventive and curative) ways of tackling it.
5 Help for the parents in the form of background information and advice.

A common coping strategy used by victims of workplace bullying is to leave the organization (Quine, 1999). Djurkovic & McCormack (2006) report that managers should be trained to deal with bullying and foster an anti-bullying culture both formally (policies and procedures) and informally (e.g. as a role model).

RESEARCH METHOD

Data for this study were collected by observation and focus group. Prior to the start of the project, one of the authors spent around an hour a day in-world for nearly 6 months, getting to know the interface and the accepted culture of residents. During this time, we negotiated with Linden Lab for permission to perform our study, in accordance with their rules for researchers (which are in fact no longer in force). At the end of this period, two of the authors carried out the non-participant observation part of the study. For 5 days in one week, behaviour was observed for 3 hours each day: 1 hour early in the morning, one in the afternoon and one in the evening. This timing allows for the international nature of Second Life as users are spread across the world (Table 1). The avatar of one of the authors would go to an area where a group of residents were gathered, sit down and watch what happened. The results of the observation are given in the Observation section.

At about the same time as the observation, an in-world office was set up (Figure 2). This was intended as a place where online synchronous focus groups could be run with reasonable

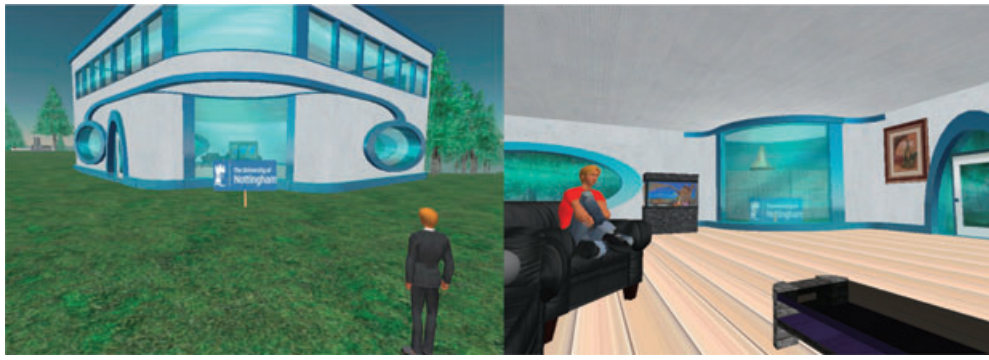

Figure 2. The in-world office.

privacy for participants. Whenever anyone entered the office, they were automatically given a note card explaining what the focus group was about, what information would be recorded and what their rights were. To summarize these rights: information that was collected was initially associated with the avatar's name but was then analysed anonymously. Participants were free to leave the project at any time, either during or after the focus group, and if they chose to do so, all the information they had contributed would be deleted. The idea was that people would assemble downstairs, have an opportunity to ask any questions and resolve any outstanding issues then go upstairs for the actual discussion.

To run the focus groups, three people were actively involved, using two PCs and a data projector. The first person was the focus group facilitator who guided the discussion as any focus group facilitator would, except that everything they wanted to say was typed by the second person who was controlling the in-world focus group facilitator (the avatar shown in Figure 2). The third person was controlling a second avatar, through the second PC. This avatar stood in the focus group room and recorded a video of what was going on. They were also on standby to take over in case of technical problems with the first PC, which would result in the loss of the in-world facilitator. All participants were aware of who this second avatar was. The second PC was projected onto a wall for the facilitator to clearly see what was going on. An object (designed to look like a flip chart) was created by one of the authors which would email the text of the conversation out of Second Life for analysis, negating the need for transcription (the focus groups were run before voice input/output was available).

To create the sample, it was decided to randomly choose an area, teleport to it and ask the first person to be seen, in a private message, whether they would take part, and then move on to another area. Typically, around 30 residents were invited to get enough people to run one focus group. Participation was voluntary and all participants, who were aged 18 years or over, gave consent for their data to be collected.

A picture from one of the focus groups is shown in Figure 3. To test the method, a pilot focus group was run about educational opportunities in Second Life. Table 2 shows a section of the

Figure 3. A focus group. The avatar standing at the back is videoing the proceedings.

Table 2. A sample conversation log

[3:02] PARTICIPANT 1: classes in SL can help in education such as technology and graphics due to modleing and scripting can help with I.T.
[3:02] MODERATOR: Do you think only technology subjects are appropriate to learn here?
[3:03] PARTICIPANT 1: no . . . it also teaches math as in what angle to put an object and how much you need to turn it. but that is basic maths.
[3:03] PARTICIPANT 2: Appropriate is not the word I would use.
[3:03] PARTICIPANT 3: well, everyone learns to be polite
[3:03] MODERATOR: What word would you use?
[3:03] PARTICIPANT 2: Possible yes. Practicable if there is such a word.
[3:04] MODERATOR: Yes.
[3:04] PARTICIPANT 4: may i help.
[3:04] PARTICIPANT 2: Anything really if one puts his mind to it.
[3:04] PARTICIPANT 3: I suggest technology subjects are largely innapprpriate.
[3:04] PARTICIPANT 1: but their not.
[3:04] PARTICIPANT 3: better suited for arts.
[3:04] MODERATOR: Why PARTICIPANT 3?
[3:05] PARTICIPANT 1: technology helps everyone in some way. with out it there would be no computers with no computers no SL.
[3:05] PARTICIPANT 3: because this place is all about expression. . . . it is a visual medium.

conversation that took place during the pilot study, to illustrate what a conversation log looks like. Avatar names have been removed and the in-world time (which is the Pacific time zone) is shown in square brackets.

The focus group data were analysed using Interpretative Phenomenological Analysis (IPA; Smith & Osborn, 2003). IPA is a qualitative technique used to gain insight into the experiences

of individuals and to examine how individuals interpret their experience of a phenomenon. These data are then reinterpreted by researchers to draw out themes and linkages between these themes to answer broad research questions. The aim is not to try to create an objective view of the phenomenon (Smith *et al.*, 1999). The technique is similar to grounded theory in that the researcher does not start the interpretation of data with hypotheses which he or she intends to test. IPA is therefore an exploratory tool that is data driven rather than theory driven (Shaw, 2001). Analysts attempt to capture and understand the meanings in the data that reveal the respondent's psychological world, something that comes from a sustained engagement with the data and a process of interpretation (Smith & Osborn, 2003). After individuals' experiences are analysed in this way, connections between the themes are sought, constantly checking the raw data to confirm these emerging overarching or superordinate themes. In this way, the hermeneutic circle is closed (Klein & Myers, 1999).

An interesting point to consider is whether we are researching residents or users (the term 'resident' referring to an avatar and 'user' referring to the human controlling the avatar). They are not necessarily the same. Turkle (1995) discusses one of the appeals of virtual worlds as being the ability of a user to change themselves, with change of gender being discussed most. For example in one study of a Japanese virtual world, many tens of thousands of users were found to be swapping gender (Turkle, 1995). The approach taken here was that we were collecting information from residents about acts performed by residents and the effect on other residents. No data were collected on participants' First Life.

OBSERVATION

During the observation sessions, observation sheets were created by two observers independently to detail any griefing that was observed. A description of each incident was recorded along with the location and type of behaviour. These types were the 'Big Six' and were coded using the numbers given in the Bullying, cyberbullying and griefing section. When the observation sheets were examined for inter-rater reliability, there was 79% agreement on whether an act of griefing had occurred and what type it was. The agreement expected by chance was 28% and Cohen's kappa was calculated to be 0.71, which indicates a good level of agreement. The counts of each behaviour that were coded by the two observers are shown in Table 3. Even though, for this study, only a tiny fraction of Second Life was observed, all of the 'Big Six' were witnessed. Examples of each of these are given in here to illustrate how the authors interpreted them and the sort of behaviour discussed in the focus groups.

1 Intolerance. Two residents with swastikas on their chests were talking in extreme terms about how different races offended them, in a public area. One resident was seen to make fun of another resident's clothes. Another resident made derogatory comments about Americans and dressed up as a chimpanzee to mock the US.
2 Harassment. Verbal harassment was observed.
3 Assault. Bombings and shootings were witnessed.

Table 3. Counts of observed griefing; Type 1 through 6 refers to the numbers given to the 'big six' in the Introduction

		Observer 2						
	Type	1	2	3	4	5	6	Totals
Observer 1	1	**2**	0	0	0	0	1	3
	2	0	**1**	0	0	0	0	1
	3	0	0	**2**	0	0	1	3
	4	0	0	0	**1**	0	0	1
	5	1	0	0	0	**8**	1	10
	6	0	0	0	0	0	**1**	1
	Totals	3	1	2	1	8	4	19

The diagonal in bold shows agreement, the numbers above and below the diagonal show disagreement.

4 Disclosure. We observed two residents discussing a user's sexuality, and heard one resident complain of being banned from Second Life for a time for mentioning a user's real name in another conversation (Note that this second incident was not coded as griefing as we did not observe it).

5 Indecency. In PG zones, we repeatedly witnessed nudity and swearing.

6 Disturbing the peace. In one area, music from a television programme popular in the UK in the 1980s was played repetitively, to the annoyance of the residents there. In another, an object became attached to a resident which they could not remove, which repeated the words 'banana phone' audibly every few seconds.

FOCUS GROUPS

In all, four focus groups were run with a total of 14 residents. Four superordinate themes emerging from the data are presented next and discussed in the Discussion section (note that quotations have been edited for grammar, punctuation and spelling).

The nature of griefing

This theme reflects the perception of residents on what griefing actually is within the context of Second Life. All but two of the participants had direct experience of griefing, which they saw as unacceptable, persistent behaviour which disrupts the ability to enjoy Second Life. Residents talked about griefing having some form of intent and persistence, and were clear that accidental aggression (e.g. accidentally bumping into someone) was not considered griefing. They felt that the behaviour should not be tolerated within Second Life. 'Unacceptable, totally. [S]ometimes avatars appear invisible to others due to lag, so [pushing] may be accidental but if they constantly follow you pushing you then you know it's griefing' (SM).

Some of the participants ran businesses in Second Life and felt that griefing did more than just disrupt enjoyment but interfered with income-generating work: 'It means to me not being able to finish products on time because someone likes to bomb my shop. And that costs real money in the long run' (JS). Two participants took the view that griefing was only harmless fun: 'I was caged once when I first got to SL, I thought it was funny, and moved on' (JE).

Griefer motivation

Participants described a number of motives that may explain why griefing occurs. The first, asserting power through knowledge sees knowledge of Second Life (the controls, norms, scripting language etc.) as power which can be exerted over others who lack this knowledge, typically those new to the world. Furthermore, mixed perceptions and attitudes to using Second Life, as well as its being a 'safe environment' for griefing were also considered motives for griefing.

Asserting power through knowledge

There was a strong experience that griefers are driven by their need to assert power. This same motivation is found in First Life bullying. In the context of First Life bullying, the victim is weaker than the bully in some way. In Second Life, this weakness translates as lack of knowledge about the virtual world, which prevents the victims from being able to defend themselves from griefers. As a simple example, if an avatar sits down on a surface (a chair or on the floor), it becomes impossible for them to be pushed. Someone who knows this fact can use it to deal with an assault. Griefers were seen as trying to assert their knowledge over those who lack it: 'there's some smart cookies here that take pride in their ability to do things that others can't' (SM). Participants in two of the focus groups felt that the power differential is focused on new residents or 'newbies' because they are 'naive maybe, easy prey' (SM). One resident in particular had experience of being griefed as a new resident: 'when I was a newbie there was group of 4: two girls and 2 boys [and] they would throw me around. They destroyed my first house and fired at me. After I read what I could do [to protect myself, I] put up [a] wall'.

Second Life as a game

This theme illustrates the differing perspectives on why residents use Second Life, which was raised in three of the focus groups. There is a conflicting view among users, between those who see Second Life as a game and those who do not. 'It really depends on whether this is a game or not. I am fascinated by the potential for it to be much much more. But if some folks are treating it as just fun, then others who have a different perspective find it harder to achieve their goals' (HY). This leads to friction as some residents treat Second Life as a means to work or socialize, while others act according to gaming norms: 'I think some people think of SL like other games such as World of Warcraft and think idea is to destroy everything' (VK) and 'I think here it's a problem because its a mix of both play and work. Some of us are working to make

real money. Others are just here to play' (JS). Those with the view that Second Life is a game were also those who did not see griefing as a problem: 'as much as we would like to play 'make believe' and pretend that real people are under attack. . . . it is just a virtual world, real rules can and do not apply' (JE).

Second Life as a safe environment

The central tenet running through this theme is the notion that Second Life may promote griefing as a 'safe' and easy environment to bully in: 'The suspension of cultural norms and societal rules in general. People see the internet as a free for all. And, I'd say I agree with [XS] about pent up anger being expressed in a no consequence environment' (TV). Participants felt that griefers were helped by a sense of anonymity. This links back to the organization causes of bullying which included an environment that tolerates it, and to SIDE which suggests that anonymity will affect communication. On the victim side, there was some suggestion that the consequences are less severe in Second Life; '[it's] much worse in [real life], in SL [you] can log off or go somewhere else in-world' (VK). This is similar to victims of workplace bullying dealing with the problem by leaving the organization. However, both cases involve the victims denying themselves something they likely value.

Shared responsibility to control

This theme reflected residents' perceptions that all stakeholders in Second Life share a responsibility to control and reduce cases of griefing. Managing griefing was seen as the responsibility of the developers (Linden Lab), individual avatars and the community of residents.

Developer's responsibility

In three of the focus groups, participants suggested that Linden Lab should take a lead in controlling griefing. 'Griefing happens all the time because the Lindens can't do anything about it, really' (SR). One example of something that Linden Lab does do to prevent griefing was described as 'sometimes they disable scripts if a problem appears. Like someone setting off a bomb to crash grids. [D]isabling scripts stops that' (JS). The suggestion that Linden Lab should intervene is in line with the literature on workplace bullying, which places a responsibility on management to prevent and resolve problems.

Individual responsibility

Suggestions about individual actions that could be taken to control griefing included 'griefing the griefers' and ignoring them. However, no one was keen on counter-aggression: 'You know that saying, "An eye for an eye leaves us all blind?" That's what keeps me from retaliating' (XS). One participant said that fighting back was 'not why I am in SL' (HY). Both of these

strategies are given in the literature on coping with bullying, which also includes other ideas which were not raised in the focus groups (for example attempting to resolve the conflict).

Community responsibility

The community response included the suggestion that residents should club together to ban/restrict griefers' freedom (something that has in fact now been implemented): 'like Las Vegas banned from all clubs if [they] cause trouble in one' (RR); '[We] could share information with others to prevent bullies from getting in, if they find more and more places they are banned [they] might give up'. (VK). This suggests that the Second Life community would be happy to police itself. In two focus groups, participants went further than this, proposing some sort of official Second Life police force, but in each case, this was met with scepticism: 'that's ridiculous. You can already report abuse. Are you really suggesting that they hire real people that wear badges and uniforms to make sure that you don't get put in a cage, or pushed away from your project? You can report abuse, what more do you want?' (JE).

Relationship between First and Second Life

The relationship between First and Second Life theme contained two sub-themes. First, the notion of whether the resident and user are the same. Opinion was divided on this. The following two quotations illustrate one side of the argument, which the majority of residents agreed with: 'I am somewhat the same in [First Life] as in SL. Except not as thin' (VK) and 'my avatar is reflecting my will, and directly performing my acts. In my case, if you are harassing my avatar, you are harassing me' (HY). The following two quotations illustrate the other side: '[i]t is not an individual, it is an avatar, think about it' (JE) and '[a]re you all exactly the same people on here as what you are in RL? I'm not. In [First Life] I'm shy and can't talk to anyone except one friend and my fiancé. In SL i feel as though i am someone else'. (KP).

The second sub-theme explored interaction between First Life and Second Life: MB: 'I don't know if you are from USA, but there seems to be a problem here with kids taking guns to school. And using them. Where do they get the ideas? (Give you a hint?) Games' (MB). Another participant suggested that, '[i]f someone is being bullied in [real life] they may use SL as an escape. If they were then to be bullied in SL then i think it would be much worse for them' (KP). The following dialogue shows more First and Second Life interaction:

> VK: that's interesting [RR] do you think people take out [real life] frustrations in SL? (VK)
> RR: Yes I do. Some people' (RR)

This theme reveals a complex interplay between users and their online personas, which can bring the impact of griefing out of the virtual world and into the user's First Life, something mentioned dramatically in the Introduction which discussed several suicides and deaths caused by virtual world events. It appears that for some users, their Second Life stops at the computer, whereas others find it harder to 'switch it off'.

DISCUSSION

Using a cross-disciplinary approach with a quantitative and qualitative methodology, this paper has explored the concept of griefing in Second Life. As seen in the number of abuse reports Linden Lab now receive each day (discussed in the Background and Context of the Study), and given that all of the Big Six were readily observed by the authors, and the fact that almost all the focus group participants had direct experience of it, griefing appears to be common. The analysis of in-world synchronous focus groups highlighted emerging themes relating to how residents view griefing, why they feel griefing occurs and what interventions can be implemented to control this behaviour.

The first two objectives of this paper were to identify griefing behaviours in virtual worlds and examine similarities and/or differences with behaviours seen in other contexts, and to examine the perceptions of victims on the impact of such behaviour. Based on the focus group themes, we propose a definition of griefing as: 'intentional, persistent, unacceptable behaviour which disrupts a resident's ability to enjoy Second Life and which may have negative consequences for the resident both in Second Life and First Life. Mostly this behaviour is directed at a resident who cannot easily defend him or herself'. This definition also reflects the key elements of school, workplace and cyber bullying. Within these definitions, bullying is characterized as a repeated, persistent act involving a systematic abuse of power where a victim is in an inferior position. Given this, griefing can be framed within the general bullying domain and can be considered as an extension to the phenomenon of cyberbullying. As with bullying, both direct (e.g. verbal abuse) and indirect (e.g spreading rumours) griefing are possible in Second Life.

The literature revealed that the following are frequent outcomes from bullying and cyberbullying: negative well-being including stress-related illness, feelings of frustration, anxiety and anger, and an impact on home, school and work life. As discussed in the Second Life environment sub-theme, the participants perceive that consequences of griefing are less severe than bullying. We did not uncover any cases of ill health caused by griefing, but some participants discussed feelings of frustration and anger, and we found negative effects on First Life. The impact on First Life was seen in the feeling that residents and users are one and the same (recall 'if you are harassing my avatar, you are harassing me').

To examine the question of why griefing occurs and suggest possible options to combat such behaviour (Objective 3), the focus groups revealed three contributing factors. The first motivation is that griefing occurs because the griefers want to show off their superior knowledge of Second Life to those who lack this knowledge. This was seen in the 'asserting power through knowledge' sub-theme. It is this superior knowledge that leads to the imbalance in the relationship between griefer and victim, common in all forms of bullying.

The second motivation is that people grief because of the online gaming culture that brings the fighting of other virtual worlds such as World of Warcraft, into Second Life. This differing view between those who see Second Life as a game and those who see it as something more causes problems. Those who see Second Life as a game do what they would do in many other

games, and attack the people they meet, conflicting with those who want to do business or socialize.

The last motivation comes from Second Life being a 'safe' and easy place to grief. Antecedents to bullying, discussed in the Background and Context of the Study, include organizational and individual factors. These organizational factors are the make-up of the group and an environment that allows it to go on, which includes loose management structures that do nothing to prevent it. The view that came out in the developer's responsibility to control sub-theme (presented in the Shared responsibility to control section) is that Linden Lab are unable or unwilling to prevent griefing. This is actually entirely in line with Linden's philosophy for Second Life, that residents have freedom to take on any 'life' they like and that people who choose to grief have the right to do so. As such, they have not introduced many technical controls to forcibly control griefing. Allowing users to ban certain avatars from entering their land and preventing the creation of self-replicating objects, which can crash the servers, are examples of controls they have put in place. Aside from technical controls, the Big Six are an attempt to shape the society for everyone's enjoyment, with punishments for offenders (suspension of account for instance). However, griefers can easily circumvent a ban by entering the world with a new account. Deindividuation features of Second Life did come up in the focus groups as contributing to the safe environment for griefers. All of this support the assertion that the environment is a safe place to grief. As the focus group participants discussed, the environment is also a safer place to be griefed, with less severe potential consequences than other forms of bullying. It may be that the griefers realize this and think that their actions are unlikely to cause any lasting harm. Individual factors that can lead to becoming a victim of bullying include low self-esteem and unassertiveness. Individual psychological factors such as these do not come into play in griefing with the only victim characteristic identified as the inability to defend oneself due to lack of knowledge/experience of Second Life.

These motivations and the shared responsibility to control theme suggest potential strategies for coping with griefing. The first is gaining enough experience of the world to be able to defend oneself. This could incorporate several of the strategies discussed – counter-aggression (by using your experience to fight back), defending oneself (for example, using your experience to get out of a cage) and ignoring the bully, (for example, using your experience to block a griefer's messages). Respondents were reluctant to use 'griefing the griefers' (counter-aggression) as a potential coping strategy, but the other ideas were seen as acceptable. This attitude is another stark difference from other online communities where starting a 'flame war' is a normal retaliation to a flame.

The developer's and community's responsibility sub-themes also suggest coping strategies. It was felt that Linden Lab could introduce technical controls to prevent griefing, but as we have seen, they are not inclined to do so. The community responsibility seems more positive and more likely to be effective, and it was interesting to see that some respondents suggested this and the others supported it. As stated earlier, this sort of thing has already begun – the banning of griefers from multiple areas has already been implemented (although is not yet well known; see www.slbanlink.com). That the community is ready and willing to band together is encouraging for the future of virtual worlds.

Regarding who the likely targets and perpetrators are, the likely targets are residents less experienced than the griefers. All that can be said about the likely perpetrators given the data collected so far is that they are more experienced users than their victims.

CONCLUSION

Drawing on work from IS, occupational psychology and computer science, this paper has examined the phenomena of unacceptable behaviour, or 'griefing', in the massively multi-player online virtual world Second Life. By observation and a series of in-world focus groups, we collected data to identify griefing behaviours and their impact, examine why they occur and how to combat them, and identify who the likely targets and perpetrators are. Findings show that griefing is unacceptable, persistent behaviour typically targeted at inexperienced residents by those with more knowledge of the virtual world. A potential strategy for coping with griefing is for the community of users to use the controls available to them (land controls for instance) to collectively deal with troublesome avatars. The findings may have implications for similar virtual worlds that currently exist and, perhaps more importantly, those that do not yet exist, as many commentators believe that 'Second Life-like' environments will become one of the main interfaces through which people will access information in the future. In addition, the paper makes a methodological contribution demonstrating that 'in-world' research is both possible and valuable.

The main limitation this study has is in its ability to generalize results to other virtual worlds, whose communities may not be adequately represented by the experiences of the sample of Second Life users reported here. Further research should address this using quantitative methods.

Perhaps importantly for bullying research in general, virtual worlds offer the potential opportunity to collect data from perpetrators, something which is often unavailable to bullying researchers. Given the anonymity that the Second Life interface offers, and based on our experiences interacting with users, it looks likely that griefers would be willing to be involved in future research.

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