

This article was downloaded by: [Orta Dogu Teknik Universitesi]

On: 15 February 2013, At: 02:44

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## Asia Pacific Journal of Education

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/cape20>

### Video games as moral educators?

Angeline Khoo<sup>a</sup>

<sup>a</sup> National Institute of Education, Nanyang Technological University, Singapore

Version of record first published: 12 Nov 2012.

To cite this article: Angeline Khoo (2012): Video games as moral educators?, Asia Pacific Journal of Education, 32:4, 416-429

To link to this article: <http://dx.doi.org/10.1080/02188791.2012.738638>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.tandfonline.com/page/terms-and-conditions>

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

## Video games as moral educators?

Angeline Khoo\*

National Institute of Education, Nanyang Technological University, Singapore

(Received 7 February 2012; final version received 27 May 2012)

The growing interest in video gaming is matched by a corresponding increase in concerns about the harmful effects on children and adolescents. There are numerous studies on aggression and addiction which spark debates on the negative effects of video gaming. At the same time, there are also studies demonstrating prosocial effects. This paper focuses on how video games, particularly massively multiplayer online role-playing games (MMOs and MMORPGs for short) that allow interaction with other players, can play a part in players' moral and character development. Although there are many games with moral content, the MMO game *World of Warcraft* (WoW for short) is used as an illustrative example because of its popularity, to demonstrate how players, through game content and game play, are confronted with moral dilemmas which demand decision-making, social obligations and responsibilities, perspective-taking and empathy, perseverance and delayed gratification.

**Keywords:** videogames; moral values; character education; benefits; *World of Warcraft*

### The popularity of videogames and growing concerns

According to the *Kids and Gaming 2011 Report* (NDP Group, 2011), 91% of children and teenagers in the US played video games in 2010, and that the gaming population of children between 2 and 17 years increased 12.68%, the fastest growth being among children between the ages of 2 and 5 years. There is also evidence that the amount of time that children and adolescents spend on gaming is steadily increasing (Colwell & Payne, 1997; Subrahmanyam, Kraut, Greenfield, & Gross, 2000; Anderson, Gentile, & Buckley, 2007). In 2011, the US National Public Radio (Sydell, 2011) reported that every week, 3 billion hours were spent in video game playing.

In Singapore, a survey conducted by the Parents Advisory Group for the Internet in 2004 (Khoo, Hawkins, & Voon, 2005) reported that 73% of the adolescents between the ages of 13 and 17 years played digital games. Another more recent study on Singaporean children and teenagers' video gaming patterns found that 83% of them reported playing video games for an average of 20.2 h per week. Boys played 22.1 h per week, compared to 18.2 h for girls (Choo et al., 2010). Today, with increased broadband penetration, we can expect this percentage to be higher. According to the report by Singapore's InfoComm Development Authority, about 84% of households had access to at least one computer at home in 2010. Amongst households with schoolgoing children, 96% had computer access at home, and about 82% of households had Internet access at home. Almost all of such households connected to the Internet used broadband. In fact,

---

\*Email: [angeline.khoo@nie.edu.sg](mailto:angeline.khoo@nie.edu.sg)

the home broadband penetration rate increased to above 190% (InfoComm Development Authority, 2011).

Both the increase in Internet and broadband use and the popularity of video games fuel growing concerns about how games are affecting players, particularly children and teenagers, for whom video gaming has become an integral part of their daily lives. Worries are exacerbated by media reports of how players have ruined their lives because of their obsession with their video games (Basu, 2009), and some reports have even suggested that games can cause players to confuse the real world with the virtual world (Sim, 2009) and worsens attention problems (Tan, 2012). There are also reports of players becoming more aggressive (Leow, 2009; Ng, 2012a), and even players becoming mentally ill as a result of their gaming habits (Tay, 2006). More recently, both a counselling centre that specializes in Internet issues and the Juvenile Court reported increasing cases of gaming addictions (Musfirah, 2011; Ng, 2012b).

While the media reports focused on the negative effects of video gaming, players presented very different perspectives. They described experiencing many benefits such as development of new friendships, better social interaction with friends, and learning about teamwork and leadership (e.g., Thompson, 2006; Knight, 2006; Gwee, 2008).

### **Negative and positive effects of video gaming: the need for a balanced perspective**

Negative effects of violent video games on players find support in many studies. Gentile and Stone's (2005) review of the research shows that violent video games can have both short-term and long-term effects. Many studies, including meta-analytic analyses, have demonstrated that children who play video games with violent content have increased aggressive cognitions and affect, lower empathy and prosocial behaviours, and exhibited higher levels of aggressive behaviours (e.g., Anderson & Bushman, 2001; Funk, Buchman, Jenks, & Bechtoldt, 2003; Uhlmann & Swanson, 2004; Farrar & KrcMar, 2006; Carnagey, Anderson, & Bartholow, 2007; Anderson et al., 2010). The relationship between video games and aggression is not without controversy. Critics constantly challenge the results as well as the methodology of these studies (e.g., Goldstein, 2005, Williams & Skoric, 2005; Ferguson, 2008).

Recent experimental studies confirmed the relationship between violent video games and aggression. For example, an experimental study (Bushman & Gibson, 2010) showed that men who thought about the violent game they played maintained their aggressive thoughts and feelings 24 hours later. Another study by Engelhardt, Bartholow, Kerr, and Bushman (2011) found evidence of desensitization. Brain patterns of players of violent video games are less responsive to violence, predicting increase in their aggressive tendencies.

Researchers have also been concerned about the addictive tendencies of video gaming among children and adolescents. There is evidence those who play video games excessively report symptoms such as impairment in normal social and occupational or educational functioning, tolerance, withdrawal, or relapse (e.g., Griffiths & Wood, 2000; Tejeiro Salguero & Bersabé Morán, 2002). Other effects include Attention Deficit Hyperactivity Disorder or ADHD (Gentile, Swing, Lim, & Khoo, 2012; Chan & Rabinowitz, 2006; Bioulac, Rafi & Bouvard, 2008), depression (Seay & Kraut, 2007; Gentile et al., 2011) and poorer relationships with the family (Chiu, Lee, & Huang, 2004). In Singapore, about 8.7% of children and teenagers who show five or more out of 10 symptoms of damage to family, social, school or psychological functioning, can be classified as "pathological players" (Choo et al., 2010).

While concerns about the negative effects of video gaming are indeed justified and supported by research evidence, the fact that games can have positive social and

educational benefits must not be overlooked. Several books (e.g., Gee, 2003; Prensky, 2006; Shaffer, 2006a) have been written on how video games can promote learning. Gee (2003) listed a total of 36 learning principles. He believed that the game world provides opportunities for creative solutions and problem-solving skills, and provided research evidence to support this. Squire's (2003) study of the game *Civilization III* found that students gained a better conceptualization of history, geography and politics and have deeper appreciation of different perspectives. In a study of *World of Warcraft* forums, Steinkuehler and Chmiel (2006) found that players showed scientific literacy in terms of understanding mathematical models, constructing social knowledge as well as using counter arguments.

Shaffer (2006a) provided many examples showing how epistemic games, (that is, games that allow players to think innovatively and creatively) enhance learning by providing opportunities for players to develop knowledge, skills, values as well as identities. Through simulation in epistemic games, players learn by making mistakes, appreciating perspectives and values of other players and experimenting with new identities. Shaffer built on Gee's "projective identity" (that is, the kind of character they want to be in the game, in addition to their real world and virtual identities), as well as Markus & Nurius' (1986) concept of "possible selves", to assert that in epistemic games, players not only learn what to do, what to think, but also what to be as a member of a community within the simulated environments of games (Shaffer, 2006a). He explained:

The ability of students to incorporate epistemic frames into their identities (or portfolio of potential identities) suggest a mechanism through which sufficiently rich experiences in technology-supported simulations of real world practices (such as games...) may help students deal more effectively with situations in the real-world and in school subjects beyond the scope of the interactive environment itself. (Shaffer, 2006b, p. 232)

More recently, Jackson and her colleagues (Jackson et al., 2011) found that the 12-year-olds in their study who played more video games are more creative in tasks such as drawing pictures and writing stories. However, their other forms of computer use are not related to creativity. In terms of social skills, Narvaez, Mattan, MacMichael, and Squillace (2008) showed that players who played helping games are more likely to describe the game characters in the story as having concern and empathy for others. Cross-cultural studies (Gentile et al., 2009) demonstrate that players of games with prosocial content can exhibit increased prosocial behaviour and empathy, and Whitaker and Bushman's (2011) experimental study found that playing relaxing video games can put players in a good mood, which in turn facilitates helping behaviour.

D. A. Gentile and J. R. Gentile's (2008) paper argued that games are excellent teachers for a variety of reasons. Games have clear objectives which are adapted to the prior knowledge and skills of each player. Games motivate players with exciting activities that provide an "adrenaline rush" as well as challenge players with problems that can be solved in multiple and creative ways. Stages of play are organized in successive levels of difficulty and "scaffolded" in such ways that players are encouraged to practise and master their skills. Both extrinsic rewards (e.g., better armour and weapons) and intrinsic rewards (e.g., sense of achievement) are attainable for every player. D. A. Gentile and J. R. Gentile (2008) also expressed concerns that players learn how to act aggressively from playing violent video games.

However, video games can also be equally good teachers of prosocial behaviours, and as such, they do have a role in character education and in promoting moral values. These arguments are based on the premise that the transfer of learning from the virtual game environment to the real world is possible.

### The reality of the virtual world

What is the nature of the game environment? How “real” is this virtual world to players? Can players’ experiences in the game environment have any relevance in their real or physical world? Book (2004) argued that virtual worlds are often extensions of reality rather than escapes from it. She listed six characteristics of virtual worlds, namely, shared space that allows users to participate in it at the same time, graphical user interface that depicts space visually either in 2D or 3D, immediacy of interaction in real time, interactivity that allows users to develop their own content, persistence, and a community that allows formation of social groups. Later, Bell (2008) added to the definition to include the representation of players as avatars, and defined the virtual world as “a synchronous, persistent network of people, represented as avatars, facilitated by networked computers”. Similarly, Thomas and Brown (2009) defined virtual worlds as:

... persistent, avatar-based social spaces that provide players or participants with the ability to engage in long-term, joint coordinated action. In these spaces, cultures and meanings emerge from a complex set of interactions among the participants, rather than as part of a predefined story or narrative arc. At least in part, the players are the ones who shape and to a large extent create the world they inhabit. (p. 2)

For players of MMOs or MMORPGs, the virtual environment of the game world is especially real. Yee (2006a) first studied players of these games and found immersion to be one of the three major motivations of play (the other motivations being achievement and social interaction). Those immersed in the game world enjoy discovering things in the game that other players do not know about. They take pleasure in customizing the appearance of their characters, and they create personas in their game characters to role-play stories in the game. Immersion also allows them a means of escaping from the problems faced in the real world. For such players Yee (2006b) described the game world as:

... places where alternative identities are conceived and explored. They are parallel worlds where cultures, economies and societies are being created. They are environments where the relationships that form and the derived experiences can rival those of the physical world. They are new platforms for social science research. They are places where people fall in love, get married, elect governors, attend poetry readings, start a pharmaceutical business and even commit genocide. Whatever MMORPGs are, or will become, one thing is clear. They are not just games.

For Hartman and Vorderer (2009), the virtual game world is real enough for players of violent video games to the extent that they have to engage in the process of moral disengagement. This process allows players to enjoy their violent game-play without guilt. Players do perceive non-human characters in the game world as social entities. Many studies are cited showing evidence of anthropomorphism with game characters. Due to automatic social perception processes, players behave towards non-human or computer-generated characters as if they are human and social beings, even to the extent of showing empathy for these characters. Thus, if they have to commit any form of virtual aggression (that is, any action with the intention of harming other social characters, causing these characters to want to avoid the harm), they are likely to feel guilty. Thus, as Yee (2006b) has pointed out, the game is not “just a game”.

In fact, Game FAQs (2011) found that 75% of the players polled reported that they do feel a little guilty about killing someone in the game. Thus, players of violent games have to manage their moral concerns in order to enjoy playing these games. Hartman and Vorderer (2009) argue that the process of moral disengagement allows players to see their violent actions as justifiable. Players actively rationalize and provide reasons for their action, such as: They are fighting for a just cause, or stating to themselves that they are

merely playing a game. Also, games provide moral disengagement cues that help players to separate their actions from their own moral standards. Such cues, for example, an alien attack on Earth, provide legitimate reasons for fighting.

Hartman and Vorderer (2009) tested this moral disengagement hypothesis in a series of experiments. The results of their study confirmed that fighting and killing in the game help to reduce guilt and negative feelings if players can defend their actions and argue that their actions are for a just cause. In other words, players of violent games do feel less guilt and have fewer negative emotions after playing a violent game if their acts of virtual violence can be justified.

Another experience of the reality of the virtual world is documented in the interview study of 42 video game players (Ortiz de Gortari, Aronson, & Griffith, 2011). Players experienced what the researchers call “Game Transfer Phenomena” (GTP). This occurs when elements in the video game become associated with real-life events that have effects on the players’ moods, thoughts and actions. In other words, game elements become infused with the players’ real lives. GTP can be involuntary or automatic or intentional. When used intentionally, players use the games as tools for entertainment, for modeling game content and in daydreaming. Their research also shows that video games sometimes triggered intrusive thoughts, sensations, impulses, reflexes, optical illusions and dissociations.

The argument of transfer between the real and the so-called virtual might be rendered moot because according to Thomas and Brown (2009), players are both their game character and real-world person at the same time. In other words, they are in their personal real-world identity as players, as well as their game identity as avatars. This is made possible through what Thomas and Brown call the “networked imagination”, which is simply defined as the imagined reality that is constructed and shared by all the players who are connected in the game world through their play, but physically separated in the real world.

The online community of players who form a social group, known as the “guild” in *World of Warcraft*, is one example of this “networked imagination”. Members of the guild come from different countries but in the game, they interact with each other in the same virtual space. The guild functions like a social organization with members having its own hierarchical system and set of rules. Members quickly develop a sense of guild identity, reinforced through guild chat which allows members to communicate with each other on a regular basis. Some guilds also use voice communication software such as Ventrilo or Teamspeak to talk to each other in real time. There are also guild websites and forums where members discuss game issues as well as real-life concerns. In the guild, players adopt the identity of their game characters as well as interact with each other in their real-life identities. Thomas and Brown (2009) explain that through “conceptual blending” players are able to co-exist in both the virtual and the real world simultaneously.

These virtual worlds of games constitute entirely new learning environments, one in which the learning process is “inverted”. Instead of learning *about* a topic or concept first before learning *to be* as in traditional models of learning, players engage with the virtual worlds by learning “to be”, through immersion in their characters. This learning “to be” is facilitated through the player’s interactions with other players who make up the online community in the game.

### **Character education through video games**

Through GTP and the conceptual blending of both virtual and real worlds, experiences of players in the games can have effects and consequences in the real world. If players can

learn aggressive behaviours through games, it is just as possible for them to acquire different perspectives, develop empathy and sharpen their moral reasoning through these games.

Kohlberg (1984) believed that moral development takes place through the cognitive processes of moral reasoning. The goal of moral education is to help individuals progress from early stages of moral reasoning to the higher stages. Briefly, these stages are:

Pre-conventional: Moral values in terms of personal needs

Stage 1: unquestioned obedience

Stage 2: “what’s-in-it-for-me fairness”

Conventional: Moral values in meeting others’ expectations and social obligations

Stage 3: interpersonal conformity

Stage 4: responsibility of the “system”

Post-conventional: Moral values determined through reasoning based on universal principles of justice and human rights

Stage 5: principled conscience

These stages of moral development can be observed in players’ motivations and playing styles. Pre-conventional players play to advance their own goals – what is good or bad play, and what is right or wrong in the game are defined in terms of winning or losing. Players in the conventional stages tend to play according to the rules of the guild and have learned to put the interests of guild members above that of self. In the post-conventional stage, players may choose to break or redefine the rules in favour of decisions that reflect deeper understanding of human rights and universal principles.

Kohlberg (1984) advocated the use of moral dilemmas as the educational tools to facilitate moral reasoning and foster moral development. One example of a story that involves moral dilemmas in *World of Warcraft* is the story of *Arthas* (Love4Starcraft, 2010). In the story, plague-infested grain had already been distributed to all the villages of Stratholme when Prince Arthas arrived with his army. Anyone who consumed the grain would be turned into undead creatures and recruited into the army of the Plague Lord Mal’Ganis. Arthas made the difficult decision to kill all the villagers, including those who were still healthy, to prevent the spread of the plague to the other villagers, and to stop the increase in the numbers of the Undead. Was he acting on utilitarian principles (doing the greatest good for the greatest number of people, or avoiding the greatest amount of suffering for the greatest number)? Can his actions be justified? Members of the author’s guild debated this issue in their guild forum, extending the discussion to a possible real-life scenario, depicted in the movie *Outbreak* in which the US military had decided to obliterate towns infected with a deadly airborne virus.

Moral dilemmas are sometimes faced by players who have to negotiate between their game identity and their real self. Khoo and Hall (2010) document the experience of one player, whose character Ennova had orders as a Death Knight to kill innocent villagers. The process of moral disengagement described by Hartman and Vorderer (2009) and the moral lessons she derived from this experience are described below in her account:

But standing there in New Avalon with my sword in hand, and the villagers cringing before me and pleading for their lives, I found myself unable to press the keys on my keyboard and execute the task of killing them. Yes, I was fully aware that this was all part of the game. My Death Knight had become me, and I did not feel it was fun to do this quest.

Nevertheless, the quest had to be done or my Death Knight could not level up. So how did I complete the quest? I found a solution – I waited for some of the villagers to attack me first, then I could kill them in self-defense. Yes, this took much longer, (and laugh if you must), but

I felt much better about it. By the time I had to kill Lady Eonys, it wasn't so hard anymore. I had become desensitized. Aha, I had become evil.

What was on my mind while I was doing this quest? I was thinking of all the massacres that had taken place in history, how soldiers had to obey orders from their superiors – did it begin like this? (Khoo & Hall, 2010, p. 108)

Ryan and Lickona (2008) expanded Kohlberg's (1984) moral reasoning theory to include moral knowing – in other words, cognitive strategies that have been decided upon after careful and systematic weighing of the pros and cons of each decision. Their model of character education includes two other components: affect and action. Affect refers to our emotional commitment we hold to our values which become part of our moral identity. It also includes conscience and empathy. Affect is the motivation that translates moral knowing into action. Action comprises three elements – the will to weigh choices and take action, competence to listen, communicate and take the appropriate action, and finally, habit that develops into character. However, character development cannot take place without interaction with others. Ryan and Lickona (2008) explained that character development takes place through membership in communities where we take on roles, learn perspective-taking and conflict resolution and commit ourselves to responsibilities and relationships.

In *World of Warcraft*, players' relationships with others in the guild constitute this community which has the potential to help develop moral values and character. Most guilds have officers who help organize and manage the running of the guild. Disagreements and conflicts are often discussed and debated in guild chats in the game, as well as outside the game through guild forums. Many guilds are formed with the aim of enhancing players' enjoyment of the game, which not only include interaction but also achievement of game rewards through difficult battles with enemies in raids. Raids are groups of more than five members, organized to battle tougher enemies. Successful raids yield prized rewards such as high-quality armour or weapons, much coveted by players.

Some guilds place achievement and rewards on a high priority. Hence, members of such guilds value high performance and tend to be less tolerant of those who do not play well enough to meet the expected standards. Other guilds, especially those whose aims are to foster social interaction and friendships, would place a higher value on teamwork, cooperation and patience. It is through such game experiences as raids that players best learn social skills and develop moral reasoning.

*Leeroy Jenkins* is a classic example of a raid, captured on YouTube (Noobinc, 2006) and widely circulated among *World of Warcraft* players some time ago. It is a good illustration of what not to do in a raid. The player Leeroy was not around when the leader of the raid gave precise and detailed instructions on how best to fight the enemies and explained the strategies the team had to adopt. The players were to be especially mindful not to step on the dragon eggs scattered all over the dungeon, or they will face attacks by numerous dragon hatchlings. When Leeroy returned to the game, he headed straight into the dungeon and did exactly what the raid leader told the group not to do. This resulted in the massacre of the entire raid group.

Although the video was circulated mainly because players find it funny, it has some value for the teaching of social skills and character education. Leeroy's teammates in the game were understandably upset and many were angry enough to curse and swear at him. To what extent was Leeroy to be blamed for the annihilation of his raid group? After all, he was not around when the instruction to avoid the dragon eggs was given, but he should have known better not to rush in without consulting the leader. What should he have done instead, and how should he respond to the team's remarks? How should you react if you



were one of Leeroy's teammates? If you were the leader of the raid team, how would you help the team members manage their frustrations and anger?

In raids, a good team player has to strike a fine balance between satisfying individual needs and group or guild needs. The choice between self or other is illustrated in the game's looting system. After the enemies have been defeated, players can share the loot through the system that allows them to choose Need, Greed or Pass. Players should only select Need if they can make use of the items, and the system gives them a higher chance of getting the loot compared to those who choose Greed. Items that their characters cannot use can be sold for gold. More advanced players are expected to sacrifice their chances of making gold by "passing" or giving up the loot for other less equipped players. Guild or raid leaders can also bypass the system and choose to allocate the loot to players whom they felt deserved them. Different perceptions of who has higher priority over the loot often results in conflicts. For example, should players who have higher records of attendance but are less skilled have priority in the share of the loot over those who are very skilled players but have poorer attendance records? Guild members are very quick to sanction those who make selfish choices. How much tolerance should be given to members who infringe the guild rules, and should repeated offenders be expelled from the guild?

Conflicts in the guild can arise from a variety of issues. Such occasions can promote greater understanding, better communication and opportunities to build better relationships. One example cited in Khoo and Hall (2010) is the account of *Luvalot*, an "officer" in her guild:

We had a member of the guild who was unhappy and was thinking of leaving the community as he felt the direction of the guild was changing. This member was very concerned that his voice was not being heard and his opinions were not being taken seriously. I communicated with this member for a while, and eventually requested that this member talk to me on our Vent server so we can discuss the concerns verbally. The guild has a website and a means to send private messages to individuals. However, I find that on many occasions, the written word or text is taken out of context and interpreted differently than it was intended.

This member and I talked and addressed all of the concerns that were brought forth. We have always taken the concerns of members seriously and that not everything is as it appeared to be. Often, when it may seem that issues are not being addressed, they in fact, really have. In the end the member took it on faith that his concerns about the guild were being addressed, and today, he is still an active member of the guild. (p. 98)

Character education through Noddings' Care Ethics (Noddings, 2010) emphasizes taking action through modelling, dialogue, practice and confirmation. According to Noddings, care must be demonstrated in relationships with others, and as it can be expressed in different ways. How we express our care for others needs to be explored and evaluated through our conversations with them. Caring becomes a habit or "mentality" through practice and reflection. Finally, confirmation is the process of encouraging the best in others and helping them develop a better self. Such an opportunity arose for *Enyia*, another player documented in Khoo and Hall (2010):

I did not like him at first, but it was hard to ignore him. Whenever he logged into the game, he would often brag about how fast he was levelling his character. He loved showing off to guild members all the gear and loot he had acquired, giving little credit to who had sacrificed time and effort to help him. What I was most put off about him was the way he craved attention and tested our patience by leaving and rejoining the guild again, and again, and again.

One evening, I found him sitting alone outside the bank in Ironforge... I was surprised by what he said next. "People in the guild don't like me. I tried hard to make them like me. I thought if I showed them how good a player I am, people would like me for it. But why don't they like me? Do you know why, and can you please tell me?" I was tempted to tell him what

I thought, but instead, I said, “Why do you think they don’t like you? How did you behave towards them?”

He was quiet for a very long time. I thought he had gone offline. Then suddenly, he said, “I have been obnoxious. I was always asking for help and when I offered help, it was all about my ego. It was me, me, me all the time.” After another long pause, he continued, “What I can do about this?”

... This incident is one of the more memorable ones for me. I too, had gained some measure of self-awareness and a new perspective. I had judged him by his behaviour, which I believed to be stereotypical of players his age. I had failed to see that beneath all his actions is a teenager who wanted to be liked and who needed affection from others, but who just didn’t know how to go about getting it. (pp. 104–105)

The character and moral education frameworks of Kohlberg, Lickona and Noddings are also discussed in Koo and Seider’s paper (2010). They summarized three ways in which video games can promote prosocial learning. Firstly, through stories, characters, as well as graphics and sounds, video games act as message transmitters. Players of games with prosocial messages can learn to imitate and enact desirable helping behaviours. Secondly, through the game’s interactive system, players take on different roles and personas, make their own choices and reflect on their values. Finally, games are social practices. Players can discuss and debate on their actions through their interaction among other players.

### **Opportunities for citizenship education**

Besides having virtual and projective identities in the game environments and real-world personal identities, players are at the same time also members of their real-world social identities when they interact with each other as members of social groups. As explained by Social Identity and Self-categorization Theories (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), one’s social identity is made salient by the very presence of other social identities. In other words, our “in-group” cohesiveness is enhanced by the presence of “out-group” others. Our national identity becomes the source of national pride when we compare ourselves favourably with other nations. Hence, playing with players of other nationalities has the advantage of making us more aware of our own national identity. The author became more aware of her Singaporean identity in social situations in the game world where non-Singaporeans are present. On several occasions, she was asked by her American counterparts in the game about the education system in Singapore, particularly about Singapore students’ performance in mathematics and science in the Programme for International Student Assessment (PISA). On other occasions, she had opportunities to address social stereotypes about Singapore (“No, Singapore is not in China”, and “Yes, we are allowed to chew gum”).

In the game world where there are people of different nationalities interacting with each other, players have opportunities to put into practice what is learned in Social Studies at school, and in doing so, enhance their national identity and pride.

### **Link between play, reflection, values and behaviour**

Many acts of aggression – physical, verbal, as well as relational (with the intention to harm relationships), are often performed without much thought by players keen to advance in the game. Moral reasoning and actions do not occur spontaneously unless initiated by someone, either in the game through the chat system or on the guild forums. For example, a quest involving inflicting pain to extract important information can spark debates about

the nature or form of interrogation used. For games to act as moral educators, moral agents are needed to act as catalysts for such moral discussions and debates. These moral agents can make use of unpleasant events in the game like “ganking” – when higher level players bully or attack lower level players, preventing them from enjoying the game (see Stoyq, 2006, for an example) – as opportunities to learn social skills. Ganking is a form of cyber bullying. Discussions could include questions like – how to respond if you are being ganked? How would you manage your anger? Do you get your higher level guild members and retaliate? What kind of consequences would result from these actions? Koo and Seider (2009) also pointed out that character education would not be able to tell if players who show positive behaviours in the game are acting because they are trying to gain advantages in the game or as true expressions of virtue. Thus, the intercession of moral agents is needed to help players make the connection between their game play and moral values and prosocial actions. Good guilds have members who act as moral agents to help establish a culture of caring through their playing styles. In such guilds, members act as role models, demonstrate concerns for each other and help each other become not just better players but better persons in real life too.

Regardless of their motives, players can learn a whole variety of social skills through interaction with other players. By understanding contrarian viewpoints, they adopt perspective-taking and learn to accept and appreciate differences. The chat channels in the game constantly display various forms of communication which can serve as positive and negative examples of communication. Through the responses of others, players can learn to be assertive, yet tactful. They learn to share their achievements without being boastful or egoistic. In raids, much tolerance and patience are required, especially when playing with players who are less skilled and prone to make mistakes. Nordlinger (2010) argued that games do expose children to ethics in a controlled environment, and that their interactions in the virtual world can help them think about real-life experiences and learn about human nature. He gives a detailed example in an interview for WoW insider (Poisso, 2010):

When young teenage males are in a raid, they often act either condescending or overzealous – for instance, a tank rushing into a dangerous crowd without regard for his teammates or a mage lecturing a healer for not responding quickly enough. Through empathy or playing a few alts, you often get to see literally what wearing another’s shoes provides. A tank with a healer alt is often more patient. A mage that also has a tank often can appreciate the challenge of holding agro . . . a simple lesson to see things from another’s perspective.

Self-regulatory skills are needed to manage anger and frustration, to sacrifice self-interest and consider the needs of guild members. Players are also required to act responsibly by planning ahead in making preparations before a raid. They learn cooperative skills in working as a team, and to trust other members to do their part.

## Conclusion

Game developers have been encouraged to develop moral content that include not just non-linear good and evil choices but more complicated ones that involve a matrix of complex and ambiguous choices without clear good or bad answers (Kirithem, 2010). Many such games are already available. For example, Schulzke (2009) illustrated how the game *Fallout 3*, which presents more complex moral choices according to Aristotelian moral concepts, encourages players to think about their actions in the moral world and make the connection to their behaviour in the real world. Non-player characters in the game also react to the players’ responses, making them aware of the consequences of their

choices. Staines (2010) also demonstrated how *Ultima IV* and *Mass Effect* are able to engage players in moral choices within a Neo-Kohlbergian framework which includes moral judgement, moral sensitivity, moral motivation and moral action.

In future, we hope to see more players involved in moral discussions with their peers. Character education would certainly be more creative if teachers present moral dilemmas in commercial games in their classes. By playing with their children, parents would not only benefit by having a better system of monitoring but have the opportunity to transmit values and enhance relationships and family bonding. All parties interested in working towards minimizing the harmful effects of videogames and enhancing their benefits can play a part either by actively playing the games themselves or by encouraging discussions with players on their game experiences. Video games can indeed be useful tools for moral and character education.

## References

- Anderson, C.A., & Bushman, B.J. (2001). Effects of violent videogames on aggressive behaviour, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological Science*, *12*(12), 353–359.
- Anderson, C.A., Gentile, D.A., & Buckley, K. (2007). *Violent video game effects on children and adolescents: Theory, research, and public policy*. New York, NY: Oxford University Press.
- Anderson, C.A., Shibuya, A., Ihori, N., Swing, E.L., Bushman, B.J., Sakamoto, A., . . . Rothstein, H.R. (2010). Violent video game effects on aggression, empathy, and prosocial behavior in Eastern and Western countries. *Psychological Bulletin*, *136*(2), 151–173.
- Basu, R. (2009, August 29). Game over. *The Straits Times* (Singapore), p. D8.
- Bell, M.W. (2008). Toward a definition of “Virtual Worlds”. *Journal of Virtual Worlds Research*, *1*(1), 1–5.
- Bioulac, S., Rafi, L., & Bouvard, M.P. (2008). Attention deficit/hyperactivity disorder and video games: A comparative study of hyperactive and control children. *European Psychiatry*, *23*(2), 134–141.
- Book, B. (2004, October). *Moving beyond the game: Social virtual worlds*. Paper presented at State of Play Conference 2, New York Law School. Retrieved from [http://deby.net/FILES/3d/ARTICLES/movingbeyondthegame-socialvirtual worlds.pdf](http://deby.net/FILES/3d/ARTICLES/movingbeyondthegame-socialvirtual%20worlds.pdf)
- Bushman, B.J., & Gibson, B. (2010). Violent video games cause an increase in aggression long after the game has been turned off. *Social Psychological and Personality Science*, *2*(1), doi: 10.1177/1948550610379506
- Carnagey, N.L., Anderson, C.A., & Bartholow, B.D. (2007). Media violence and social neuroscience: New questions and new opportunities. *Current Directions in Psychological Science*, *16*(4), 178–182.
- Chan, P.A., & Rabinowitz, T. (2006). A cross-sectional analysis of video games and attention deficit hyperactivity disorder symptoms in adolescents. *Annals of General Psychiatry*, 5–16.
- Chiu, S.I., Lee, J.Z., & Huang, D.H. (2004). Video game addiction in children and teenagers in Taiwan. *Cyberpsychology & Behavior*, *7*(5), 571–581.
- Choo, H., Gentile, D.A., Sim, T., Li, D., Khoo, A., & Liau, A.K. (2010). Pathological video-gaming among Singaporean youth. *Annals of the Academy of Medicine Singapore*, *39*(11), 822–829.
- Colwell, J., & Payne, J. (1997). Negative correlates of computer game play in adolescents. *British Journal of Psychology*, *91*(3), 295–310.
- Engelhardt, C.R., Bartholow, B.D., Kerr, G.T., & Bushman, B.J. (2011). This is your brain on violent video games: Neural desensitization to violence predicts increased aggression following violent video game exposure. *Journal of Experimental Social Psychology*, *47*(5), 1033–1036.
- Farrar, K.M., & KrcMar, M. (2006). Contextual features of violent video games, mental models, and aggression. *Journal of Communication*, *56*(20), 387–405.
- Ferguson, C.J. (2008). The school shooting/violent video game link: Causal relationship or moral panic? *Journal of Investigative Psychology and Offender Profiling*, *5*(1–2), 25–37.
- Funk, J., Buchman, D.D., Jenks, J., & Bechtoldt, H. (2003). Playing violent video games, desensitization, and moral evaluation in children. *Journal of Applied Developmental Psychology*, *24*(4), 413–436, doi: 10.1016/S0193-3973(03)00073-X

- Game FAQs (2011). *Poll of the day: Do you ever feel guilty about some of the bad things you have to do to characters in the games you play?* Retrieved from <http://www.gamefaqs.com/poll/index.html?poll=4602>
- Gee, J.P. (2003). *What video games have to teach us about learning and literacy*. New York, NY: Palgrave Macmillan.
- Gentile, D.A. (2009). Pathological video game use among youth 8 to 18: A national study. *Psychological Science, 20*, 594–602.
- Gentile, D.A., Anderson, C.A., Yukawa, N., Saleem, M., Lim, K.M., & Shibuya, A. (2009). The effects of prosocial video games on prosocial behaviors: International evidence from correlational, longitudinal, and experimental studies. *Personality and Social Psychology Bulletin, 35*(6), 752–763.
- Gentile, D.A., Choo, H., Liau, A., Sim, T., Li, D.D., Fung, D.S.S., & Khoo, A. (2011). Pathological video game use among youth: A two-year longitudinal study. *Pediatrics, 127*(2), 319–328.
- Gentile, D.A., & Gentile, J.R. (2008). Violent video games as exemplary teachers: A conceptual analysis. *Journal of Youth and Adolescence, 37*(2), 127–141.
- Gentile, D.A., & Stone, W. (2005). Violent video game effects on children and adolescents: A review of the literature. *Minerva Pediatrica, 57*(6), 337–358.
- Gentile, D.A., Swing, E.L., Lim, C.G., & Khoo, A. (2012). Video game playing, attention problems, and impulsiveness: Evidence of bidirectional causality. *Psychology of Popular Media Culture, 1*(1), 62–70.
- Goldstein, J. (2005). Violent video games. In J. Raessens & J. Goldstein (Eds.), *Handbook of computer game studies*. Cambridge, MA: MIT Press.
- Griffiths, M., & Wood, T.A. (2000). Risk factors in adolescence: The case of gambling, video game playing and the Internet. *Journal of Gambling Studies, 16*(2), 199–225.
- Gwee, S. (2008, January 1). Video games boost family bonding. *Digital Life, The Straits Times (Singapore)*, p. 11.
- Hartman, T., & Vorderer, P. (2009). It's OK to shoot a character: Moral disengagement in violent video games. *Journal of Communication, 60*, 865–890.
- InfoComm Development Authority (2011). *Facts and figures*. Retrieved from <http://www.ida.gov.sg/Publications/20061130175201.aspx>
- Jackson, L.A., Witt, E.A., Games, A.I., Fitzgerald, H.E., von Eye, A., & Zhao, Y. (2011). Information technology use and creativity: Findings from the children and technology project. *Computers in Human Behaviors*. Retrieved from <http://news.msu.edu/media/documents/2011/11/33ba0f16-a2e9-4d36-b063-2f540f115970.pdf>
- Khoo, A., & Hall, M. (2010). *Welcome to our world: Connecting parents with gamers*. Singapore: McGraw-Hill.
- Khoo, A., Hawkins, R., & Voon, F. (2005, September). *Aggressive, addicted or both? A study of digital gamers in Singapore*. Paper presented at the Safety and Security in a Networked World: Balancing Cyber-Rights and Responsibilities Conference, Oxford. Abstract retrieved from [http://www.oii.ac.uk/research/cybersafety/extensions/pdfs/angelina\\_khoo.pdf](http://www.oii.ac.uk/research/cybersafety/extensions/pdfs/angelina_khoo.pdf)
- Kirithem (2010, April 16). *Video games and moral choices* [Video file]. Retrieved from [http://www.youtube.com/watch?v=6\\_KU3IUx3u0](http://www.youtube.com/watch?v=6_KU3IUx3u0)
- Knight, M. (2006, July 6). Learning to be leaders. *CNN International*. Retrieved from <http://edition.cnn.com/2007/TECH/07/04/Onlinegames/index.html>
- Kohlberg, L. (1984). *Essays on moral development: Volume 2. The psychology of moral development*. San Francisco, CA: Harper & Row.
- Koo, G., & Seider, S. (2010). *Video games for prosocial learning*. Retrieved from [http://people.bu.edu/seider/Consolidated%20papers/Prosocial%20Learning%20in%20Video%20Games%20Final%20Version\\_Ko.pdf](http://people.bu.edu/seider/Consolidated%20papers/Prosocial%20Learning%20in%20Video%20Games%20Final%20Version_Ko.pdf)
- Leow, S. (2009, October 12). They fly into a rage over online games. *The Straits Times (Singapore)*, p. B5.
- Love4Starcraft (2010, November 16). *Warcraft Movie: Arthas' full story / The Lich King ~ part 1* [Video file]. Retrieved from <http://www.youtube.com/v/KNdRibJEvLQ>
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*(9), 954–969.
- Musfirah, H. (2011, February 7). More gaming addiction cases at counselling centre. *Today (Singapore)*, p. 4.
- Narvaez, D., Mattan, B., MacMichael, C., & Squillace, M. (2008). Kill bandits, collect gold or save the dying: The effects of playing a prosocial video game. *Media Psychology Review, 1*(1).

- Retrieved from [http://mprcenter.org/mpr/index.php?option=com\\_content&view=article&id=35&Itemid=12](http://mprcenter.org/mpr/index.php?option=com_content&view=article&id=35&Itemid=12)
- NDP Group (2011). *The video game industry is adding 2–17 year old gamers at a rate higher than that age group's population growth*. Retrieved from [https://www.npd.com/wps/portal/npd/us/news/pressreleases/pr\\_111011](https://www.npd.com/wps/portal/npd/us/news/pressreleases/pr_111011)
- Ng, J. (2012a, April 15). He threatened dad with knife over gaming. *The Sunday Times (Singapore)*, p. 43.
- Ng, J. (2012b, April 15). Juvenile Court sees more game addiction cases. *The Sunday Times (Singapore)*, p. 1.
- Noddings, N. (2010). Moral education and caring. *Theory and Research in Education*, 8(2), 145–151.
- Noobinc (2006, May 4). *Leeroy Jenkins* [Video file]. Retrieved from [http://www.youtube.com/watch?v=Zll\\_jAKvarw](http://www.youtube.com/watch?v=Zll_jAKvarw)
- Nordlinger, J. (2010). Virtual ethics: Ethics and massively multiplayer online games. In K. Schrier & D. Gibson (Eds.), *Ethics and game design: Teaching values through play* (pp. 102–108). doi:10.4018/978-1-61520-845-6.ch007
- Ortiz de Gortari, A.B., Aronson, K., & Griffith, M.D. (2011). Game transfer phenomena in video game playing: A qualitative interview study. *International Journal of Cyber Behavior, Psychology and Learning*, 1(3), 15–33.
- Poisso, L. (2010, January 12). Fifteen minutes of fame: Philosophically speaking. *WoW Insider*. Retrieved from <http://wow.joystiq.com/2010/01/12/15-minutes-of-fame-philosophically-speaking/>
- Prensky, M. (2006). *Don't bother me Mom – I'm learning!: How computer and video games are preparing your kids for 21st century success – and how you can help!* St Paul, MN: Paragon House.
- Ryan, K., & Lickona, T. (2008). Character education: The challenge and the model. In L.P. Nucci, L. Narvaez & T. Krettenauer (Eds.), *Handbook of moral and character education*. New York, NY: Routledge.
- Seay, A.F., & Kraut, R.E. (2007, April/May). *Project massive: Self-regulation and problematic use of online gaming*. Paper presented at the SIGCHI 2007 Proceedings Conference, San Jose, California. Abstract retrieved from <http://repository.cmu.edu/cgi/viewcontent.cgi?article=1106&context=hcii>
- Schulzke, M. (2009). Moral decision making in fallout. *Game Studies: The International Journal of Computer Game Research*, 9(2). Retrieved from <http://gamestudies.org/0902/articles/schulzke>
- Shaffer, D.W. (2006a). *How computer games help children learn*. New York, NY: Palgrave, Macmillan.
- Shaffer, D.W. (2006b). Epistemic frames for epistemic games. *Computers & Education*, 46(3), 223–234.
- Sim, B. (2009, September 11). He skips meals, baths for game yet says he's okay. *The New Paper (Singapore)*, p. 5.
- Squire, K. (2003). *Videogames in education*. Retrieved from [http://www.skatekidsonline.com/parents\\_teachers/Video\\_games\\_in\\_education\\_Updated.pdf&pli=1](http://www.skatekidsonline.com/parents_teachers/Video_games_in_education_Updated.pdf&pli=1)
- Staines, D. (2010). Videogames and moral pedagogy: A Neo-Kohlbergian approach. In K. Schrier & D. Gibson (Eds.), *Ethics and game design: Teaching values through play*. Hershey, PA: IGI Global.
- Steinkuehler, C.A., & Chmiel, M.U. (2006). Fostering scientific habits of mind in the context of online play. In *ICLS'06 Proceedings of the 7<sup>th</sup> International Conference on Learning Sciences* (pp. 723–729).
- Stoyq (2006, June 15). *WoW – Ganking lowbies 101* [Video file]. Retrieved from <http://www.youtube.com/watch?v=AJPjiq-Hklo>
- Subrahmanyam, K., Kraut, R.E., Greenfield, P.M., & Gross, E.F. (2000). The impact of home computer use on children's activities and development. *The Future of Children: Children and Computer Technology*, 10(2), 123–144.
- Sydell, L. (2011, April 11). *How to save the world, one video game at a time* [Audio podcast]. Retrieved from <http://www.npr.org/2011/04/11/135248010/how-to-save-the-world-one-video-game-at-a-time>
- Tan, J. (2012, March 11). Extended video gaming “worsens attention issues”. *The Straits Times (Singapore) Prime*, p. 3.
- Tay, S. (2006, October 8). Mad about gaming, mad from gaming. *The New Paper (Singapore)*, p. 5.

- Tejeiro Salguero, R.A., & Bersabé Morán, R.M. (2002). Measuring problem video game playing in adolescents. *Addiction*, 97(12), 1601–1606.
- Thomas, D., & Brown, J.S. (2009). Why virtual worlds can matter. *International Journal of Media and Learning*, 1(1), 37–49.
- Thompson, C. (2006, July 23). Saving the world, one video game at a time. *The New York Times*. Retrieved from <http://www.nytimes.com/2006/07/23/arts/23thom.html>
- Turner, J.C., Hogg, M.A., Oakes, P.J., Reicher, S.D., & Wetherell, M.S. (1987). Rediscovering the social group: A self-categorization theory. Oxford: Basil Blackwell.
- Uhlmann, E., & Swanson, J. (2004). Exposure to violent video games increases automatic aggressiveness. *Journal of Adolescence*, 27(1), 41–52.
- Whitaker, J.L., & Bushman, B.J. (2011). “Remain calm. Be kind.” Effects of relaxing video games on aggressive and prosocial behavior. *Social Psychological and Personality Science*, 3(1), doi: 10.1177/1948550611409760
- Williams, D., & Skoric, M. (2005). Internet fantasy violence: A test of aggression in an online game. *Communication Monographs*, 22(2), 217–233.
- Yee, N. (2006a). Motivations for play in online games. *Cyber Psychology and Behavior*, 9(6), 772–775.
- Yee, N. (2006b). *The daedalus gateway. The psychology of MMORPGs. Imagining future worlds*. Retrieved from [http://www.nickyeec.com/daedalus/gateway\\_futureworlds.html](http://www.nickyeec.com/daedalus/gateway_futureworlds.html)