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Child and adolescent social gaming: What are the issues of concern?

Over the last year, there have been an increasing number of media reports about the potentially exploitative and/or addictive nature of various types of social game that can either be played via social networking sites or be played after downloading apps from online commercial enterprises such as *iTunes* (Griffiths, 2013a). Most social games are easy to learn and communication between other players is often (but not always) a feature of the game, and they typically have highly accessible user interfaces that can be played on a wide variety of different devices (e.g., smartphones, tablets, PCs, laptops, etc.). According to Church-Sanders, (2011) there are eight different types of social gaming (see Table 1), most of which can (and are) played by children and adolescents.

In my own household, the two most popular games played by my family at the moment are the competitive casual games *Candy Crush Saga* and *4 Pics, 1 Word* (both highly popular games across the UK more generally). In fact, at the time of writing this article, the most popular game being played worldwide on *Facebook* was *Candy Crush Saga* (CSS) with over 133 million people playing monthly. Most players of CSS appear to be adult but around 10% of players are thought to be adolescents. Clearly, most people that play social games find them fun and enjoyable to play with little or no problem. However, I have been receiving an increasing number of emails from parents, teachers, and the press about some of the more negative aspects of social gaming.

Table 1: Social networking games by genre (from Parke et al., 2013, adapted from Church-Sanders, 2011)

Genre	Features	Examples
Role playing games	Use the social graph (a player's social connections) as part of the game	*Parking Wars, PackRat, Mobsters, Fashion Wars, Mafia Wars, Vampire Wars, Spymaster*
Management/nurturing games	Main gameplay involves socializing or social activities like trading or growing	*YoVille, Pet Society, FarmVille, Cupcake Corner, CityVille*
Turn-based card, board and parlour games	Played within a social context or with friends	*Farkel Pro, Monopoly*
Virtual currency gambling	Games which would otherwise be played in a gambling context	*Texas Hold'Em Poker, Bingo, Slots*
Competitive casual games	Often word-based with friends only leaderboards	*Words with Friends, Scramble, Scrabble*
Dating and Flirting	Aim to meet (or dump) people	*Friends for Sale, Human Pets, Chump Dump*
Sports games	Based on real-life sporting activities	*Premier Football, Tennis Mafia, FIFA Superstars*
Virtual jokes	Gimmicky games that tend to be popular when initially launched then fade in popularity	*Pillow Fight, Kickmania, Water Gun Fight*

There are arguably three main concerns relating to adolescent social gaming that have been aired in the national media. Firstly, there are concerns about the way games companies are making money from players by making them pay for in-game assets, in-game currency, and/or access to other levels within the game. Secondly, there are concerns about how engrossing the games can be that have led to various news reports claiming that a small minority of people appear to be "addicted" to them. Thirdly, there have been concerns that some types of social games are a gateway to other potentially problematic leisure activities – most notably gambling. This latter issue was covered in a previous issue of *Education and Health* (see Griffiths, 2013b). Therefore the rest of this article looks at these two remaining issues.

Exploitative practices in social gaming

Almost anyone that has engaged in social gaming will have played 'freemium' products. Freemium social games give free access to the game being played, but players must pay for so-called 'premium' services. A recent review on social gaming and gambling by Parke, Rigbye, Parke and Wardle (2013) defined 'freemium' games as:

"A business model in which users of the service (in this context, game) usually play for free but are encouraged to pay: for extended game play; to compete with others/status; to express themselves; to give virtual gifts; and to obtain virtual goods which are valuable due to their scarcity" (p.16).

In games like CCS, players are not charged to advance through the first 35 levels but after that, it costs 69p for another 20 levels. Players can avoid paying money by asking their friends on *Facebook* friends to send them extra lives. Players on CCS are encouraged to buy 'boosters' such as virtual 'candy hammers' for around £1. Although this does not appear to be much money, the buying of in-game assets and items can soon mount up.

In 2013, many news outlets covered the story of how two boys (aged just six and eight years of age) spent £3200 on their father's *iPhone* buying virtual farm animals and virtual farm food with real money at £70 a time (Talbot, 2013). Another case involved a ten-year-old boy who ran up a £3,000 bill on the game *Arcane Empire* on *iTunes* (Gradwell, 2013). As a consequence of these and other high profile cases, the UK Office of Fair Trading is now investigating whether children and adolescents are being unduly pressured and/or encouraged to pay for in-game content (including the upgrading of their game membership and the buying of virtual currency) when they play free games.

I have noted in a number of my more general writings about games played via social networking sites that 'freemium' games are psychological 'foot-in-the-door' techniques (see Griffiths, 2010a) that lead a small minority of people to pay for games and/or game accessories that they may never have originally planned to buy before playing the game (akin to 'impulse buying' in other commercial environments). I've also argued in a number of articles that many of the games played on social network sites share similarities with gambling especially as they both involve in-game spending of money (e.g., Griffiths, 2010b; 2013b).

Although social gaming operators need to be more socially responsible in how they market their games and how they stimulate in-game purchasing, parents themselves also need to take responsibility when letting their children play social games or allowing them to download gaming apps. Simple measures that can help stopping children unwittingly buy in-game items for real money include:

(i) not giving children access to online store passwords
(ii) personally overseeing any app that they download
(iii) using parental controls on phones and tablets
(iv) unlinking debit/credit card cards from online store accounts (i.e., do not store payment details with online stores)
(v) actually talking with children themselves about the buying of in-game extras

'Addiction' to social gaming

In my interviews to the national press and online media (e.g., Foster, 2013; Hall, 2013; Pressmen, 2013; Rose, 2013) about what makes games like CCS attractive and potentially addictive, I have noted a number of different

aspects. Games like CCS are gender-neutral games that have a 'moreish' quality (a bit like eating chocolate), and as such may appeal more to girls than boys (although I know boys among my own children's peer group that play CCS). Social games like CCS and *Farmville* take up all the player's cognitive ability because anyone playing on it has to totally concentrate on it. By being totally absorbed, players can forget about everything else while engaging in the activity. These are some of the psychological consequences of other more mainstream chemical addictions (e.g., alcoholism) and behavioural addictions (e.g., gambling addiction).

At their heart, social games are deceptively simple and fun but can be highly rewarding on many different levels (e.g., psychological, social, physiological, and financial). As I argued in a previous article (Griffiths, 2013), social games like CCS and *Farmville* may not seem to have much connection to gambling, but the psychology used by the games developers is very similar. People cannot become addicted to something unless they are being constantly rewarded for engaging in the activity. Like gambling and video game playing more generally, the playing of social games provides constant rewards (i.e., behavioural and psychological reinforcement) that in a small number of instances could result in a person becoming 'addicted' to the game they are playing.

Even when games do not involve money, most social games introduce players to the principles and excitement of gambling. Small unpredictable rewards lead to highly engaged, repetitive behaviour. In a minority, this may lead to addiction (Griffiths, 2013b). Basically, people keep responding in the absence of reinforcement hoping that another reward is just around the corner – a psychological principle rooted in operant conditioning and called the partial reinforcement extinction effect – something that is used to great effect in both slot machines and most video games (Griffiths, 2010b). At present there is little empirical evidence that social gaming is causing addiction-like problems on the scale of more traditional online games (e.g., *World of Warcraft, League of Legends,* etc.), although researchers are only just beginning to research into the social gaming area.

Looking ahead

In a previous article on social gaming I argued that the introduction of in-game virtual goods and accessories (that people pay real money for) was a psychological masterstroke (Griffiths, 2012). It becomes more akin to gambling, as social gamers know that they are spending money as they play with little or no financial return. The real difference between pure gambling games and some free-to-play games is the fact that gambling games allow you to win your money back, adding an extra dimension that can potentially drive revenues even further.

The psychosocial impact of social gaming on adolescents is only just beginning to be investigated by people in the field of gaming studies. Empirically, we know almost nothing about the psychosocial impact of these games, although as I noted in my previous *Education and Health* article (Griffiths, 2013b), research suggests the playing of free games among children and adolescents is one of the risk factors for both the uptake of real gambling and problem gambling.

Parke et al. (2013) recommended that stricter age verification measures should be adopted for social games particularly where children and adolescents are permitted to engage in gambling-related content, even where real money is not involved. I would add that age verification should be carried out in any game that requires the spending of money (even if it on virtual assets and items). Social media has enabled (and arguably encouraged) children and adolescents to spend money in-game and there is certainly some evidence that the techniques used to monetize social games have resulted in a minority of children and adolescents spending large amounts of money.

To date, there is less evidence that youth are developing addictions to social games although this is more due to the fact that scientific research has yet to study such activity. Given the growing evidence on adolescent online video game addiction and adolescent social networking addiction more generally (e.g., Kuss & Griffiths, 2011; 2012; Griffiths, Kuss &

Demetrovics, 2014), there is no reason to suppose that a small minority of children and adolescents would not develop an addiction to some types of social gaming.

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