

Video Games and Youth

Executive Summary

Video games are an increasingly popular medium, particularly with children and youth. They have become one of the primary sources of entertainment for youth with some potentially damaging consequences. Parent involvement and guidance is critical in helping children develop into adulthood in a society with what many call the excessive influence of video games.

Video games have changed significantly over the past decade. We have seen the rise of online multiplayer games, of different business models such as micro transactions, and most recently we have seen a boom in games dealing with augmented and virtual reality. Parents need to be aware of these advancements as well as older characteristics of video gaming in order to make calculated decisions for how they want their children to interact with video games and their surrounding culture.

Kids are attracted to video games for numerous reasons. Many franchises have content intended for kids and are marketed with toys and other forms of children's media. Video games can also provide a venue for children through which they can socialize with their peers. Playing games is also in itself a satisfying experience, designed to entertain and give players an accessible sense of accomplishment. These are just some of the reasons why children and youth are drawn to video games, but it can be difficult for them to recognize and understand potential risks associated with gaming.

For example, video games are often designed to be addicting and can lead children to spend excessive amounts of time playing, even neglecting other more important activities such as school work. Parents should also be aware of the way their children spend money on video games; many video games are employing new payment models and children are ill equipped to make rational purchases of virtual goods. The content of video games is also of concern; many games are created for mature audiences yet are still played by, and are very popular with, young players. Today's video game market is saturated with violent content while finding more wholesome and age appropriate content can be incredibly difficult. Parents also need to evaluate the messages within the games their children play. The industry views video games as art and a form of speech and their message will not always align with parents' beliefs and values. Parents should be aware of the online communities that have grown around video games, many of which are unsuitable for a child. Online culture is notoriously hostile and often sets a terrible example for children to follow.

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Background and Significance

- 65% of U.S. households own a device used to play video games.¹
- More than 90% of U.S. children play video games. When considering only adolescents between the ages of 12-17, this figure rises to 97%.²
- Research has shown children below the age of 8 playing video games a daily average of 69 minutes on handheld consoles, 57 minutes on computers, and 45 minutes on mobile devices.³
- More than 85% of video games contain some form of violence.⁴
- Online video game communities have largely normalized anti-social behavior. Abusive comments often do not receive criticism, making the behavior appear tolerable.⁵
- Anti-social behavior in online games, as well as in the internet in general, is widely acknowledged as a considerable problem, even by members of the industry.⁶

Player Motivations

- People play video games primarily for four kinds of reasons: to engage in a fun activity, to be sociable, to experience another world, and to cope with emotions.⁷
- Different games are designed to engage with players at different levels. This is to address the different needs players may have. There are games designed to encourage short play sessions and there are games designed to encourage longer, more dedicated sessions spanning hours on end.⁸
- Adolescents experience higher levels of distress than adults when excluded by peers. This leads to teens being incredibly susceptible to peer pressure and to them wanting to do what others do.⁹

¹ Entertainment Software Association. *The 2016 Essential Facts About the Computer and Video Game Industry*. 2016.

² APA Task Force on Violent Media. *Technical Report on the Review of the Violent Video Game Literature*. Technical Report. Washington DC: American Psychological Association, 2015.

³ Ibid.

⁴ Ibid.

⁵ Lin, Jeffrey. "More Science Behind Shaping Player Behavior in Online Games." *GDC 2015*. Riot Games, 2015.

⁶ Lewis-Evans, Ben. "Anti-Social Behavior in Games: How Can Game Design Help?" *GDC 2015*. Player Research, 2015.

⁷ Yee, Nick. "Motivations of Play in Online Games ." *Journal of CyberPsychology and Behavior* (2009): 772-775.

⁸ Clark, Oscar. "Spellbound: Asking Questions about Habit-Forming Game Design." *GDC 2015*. Unity Technologies, 2015.

⁹ Magliano, Joe. *Why Are Teen Brains Designed for Risk-taking?* 05 June 2015. 21 07 2016.

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- Research suggests that video gaming is a social activity for the majority of youth. The stereotype of “loner” gamers is not supported by how children play and share video games with others today.¹⁰
- Games are fundamentally embedded with rewards, either intrinsic or extrinsic. Playing a game can be an easy way for someone to feel like they are accomplishing something even if it is small.¹¹
- Children with depressive symptoms did not differ from other children in violent video game exposure, social play, or total time playing. These children, however, were more likely than others to report being motivated to play games to deal with emotions and because they had “nothing else to do”.¹²
- Research suggests players enjoy games that give them a sense of competence, autonomy, and relatedness. These elements are most commonly conveyed with the help of violent content, but researchers showed that reducing the level of violence did not reduce the level of enjoyment of players.¹³

Addiction

- Our brain rewards us with dopamine when it anticipates a reward. It wants us to learn how to reliably receive rewards, but can fail to understand randomness. This is a factor to why casinos and gambling can be addicting, and is used in video games with elements such as random loot drops and rewards.¹⁴
- Video games are often designed to keep players coming back again and again. This loop can become addictive for children and lead to spending excessive amounts of time playing, even to the neglect of other more important activities such as school work.
- Video games undertake what can be described as an act of seduction. They seek to excite players, filling them with anticipation for what will come next and a desire to play more. Games use an assortment of tricks to manipulate, persuade, and entertain players.¹⁵
- We often only focus on extreme cases of addiction, giving milder ones insufficient consideration. Events such as a man passing out after playing video games for three days

¹⁰ Ibid.

¹¹ Hopson, John. "10 Years of Behavioral Game Design with Bungie's Research Boss." Online Feature. 2012. Web.

¹² Ferguson, Christopher J and Cheryl K Olson. "Friends, fun, frustration and fantasy: Child motivations for video game play." *Motivation and Emotion* (2013): 37:154-164.

¹³ Madigan, Jamie. "The Psychological Appeal of Violent Shooters." 9 April 2013. *gamesindustry.biz*. 8 June 2016.

¹⁴ Pihl, Nils. "The Psychology of Freemium." *GDC China 2013*. Mention, 2013.

¹⁵ Clark, Oscar. "Spellbound: Asking Questions about Habit-Forming Game Design." *GDC 2015*. Unity Technologies, 2015.

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straight are newsworthy and grab our attention, but we can overlook such things as a child neglecting their schoolwork for playing video games.¹⁶

- Certain games are entertaining without habit-forming elements, but developers add them anyway in hopes of having a more engaged player base. Things such as collecting randomly dropped items, limited time events, daily bonuses, and other techniques are carefully designed and added to games in order to increase player retention.¹⁷
- Even within the industry, addictive practices whose purpose is to extend the longevity of a game have been condemned, sometimes being viewed as unethical and exploitive. Jonathan Blow, designer of *Braid* and *The Witness*, criticized the usage of reward schedules in games such as *World of Warcraft* to keep people playing through repetitive and terrible gameplay for profit.¹⁸
- Many of these elements and techniques, however, are things that can be found in activities outside games. For example, a “buy 10 lattes get 1 free” loyalty card at a coffee shop is a form of reward structure, but people don’t feel it is manipulative or too powerful to resist.¹⁹
- Once engaged, people continue to be engaged until interrupted by an outside force. This is, for example, why casinos and expensive stores avoid having clocks on the wall. Games employ a variety of tactics to try and keep players engaged. After finishing a round in some games, the next one starts automatically so that, when players want to stop, they have to really go out of their way to do so.²⁰

Design and Marketing

- A primary aim of game developers is to keep players engaged as long as possible, primarily to compete against other games and hobbies players could be spending time on.²¹
- Video games end up being a consumer product and as such are made to address needs and wants in the market.²²
- Freemium games are video games that are available and can be played for free but offer perks and premiums that enhance a player’s experience for a cost. Another term that is often applied to these games is F2P (free to play), but some implementations of it are viewed

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Hill, Jason. "Ethical dilemmas." *The Sydney Morning Herald* 20 September 2007. Web.

¹⁹ Hopson, John. "10 Years of Behavioral Game Design with Bungie's Research Boss." Online Feature. 2012. Web.

²⁰ Pihl, Nils. "The Psychology of Freemium." *GDC China 2013*. Mention, 2013.

²¹ Clark, Oscar. "Spellbound: Asking Questions about Habit-Forming Game Design." *GDC 2015*. Unity Technologies, 2015.

²² Ibid.

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negatively as P2W (pay to win) because the purchases players make affect the game so drastically. Particularly with these games, the industry relies on a low percentage of players spending a lot rather than the majority of customers spending a moderate amount. As such, games and marketing are designed to incentivize spending more in large chunks.²³

- Video games are made with limited scope and resources. Developers railroad users in a certain manner and reward them for it to create the illusion of a larger play space. Game designers create patterns of behavior reinforcement and reward. "The best magic trick in the world that we do in games is when the player chooses to take the left corridor when there isn't a right corridor, and not notice."²⁴
- Games often use tactics and tricks used in other industries to help boost sales and income. For example, many games now provide demos and free betas which resemble free samples in a grocery store.²⁵
- One reason game designers strive to maintain existing players is that it costs more to attain and engage new players than to retain current players, who are already willing to spend money on the product. People who have made a previous purchase are much more likely to spend more in the same game. It is in video game makers' best interest to maintain long term engagement.^{26 27}
- Many games today take their reward structures seriously, understanding that the way rewards are allotted affects how people play. It is important for game designers to consider and evaluate the contingencies of reward structures. The effects are there regardless of the developer's intentions.²⁸

Violence and Aggression

- Research consistently shows a correlation between violent video game use and an increase in aggression. These effects have been shown to have both immediate and prolonged impacts.^{29 30}
- The research reviewed also suggests that higher amounts to exposure are associated with higher levels of aggression and other adverse outcomes.³¹

²³ Pihl, Nils. "The Psychology of Freemium." *GDC China 2013*. Mention, 2013.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Madigan, Jamie. "The Psychological Appeal of Violent Shooters." 9 April 2013. *gamesindustry.biz*. 8 June 2016.

²⁸ Hopson, John. "10 Years of Behavioral Game Design with Bungie's Research Boss." Online Feature. 2012. Web.

²⁹ Anderson, Craig A. et al. "Longitudinal Effects of Violent Video Games on Aggression in Japan and the United States." *Pediatrics* (2008): e1067-e1072.

³⁰ APA Task Force on Violent Media. *Technical Report on the Review of the Violent Video Game Literature*. Technical Report. Washington DC: American Psychological Association, 2015.

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- Research has not concentrated on analyzing the effects of video games on the youngest of age groups, whether they affect people differently based on gender, or on analyzing the effects of more nuanced characteristics such as plot, morals, and production features.³²
- Good levels of communication between parent and child were found to help mitigate negative effects of violent video games. Particularly in younger children, the effects on aggression tended to be higher when there was poor parent-child communication.³³
- Boys were more likely than girls to prefer violent video games. Children who had a preference for violent games reported at a higher rate than others that they played games to deal with emotions.³⁴
- Games can be really fun and engaging without violent content. For example *Splatoon* is a critically acclaimed third-person shooter with little to no violence. Players compete by shooting paint at the environment rather than bullets at each other. Nevertheless, violence has repeatedly been proven to sell well and publishers tend to only greenlight games that resemble past hits, so the market is saturated with violent content.³⁵
- Gameplay systems in video games, mostly unintentionally, reward antisocial behavior while good behavior goes unnoticed, unrecognized, unrewarded and sometimes even punished.³⁶
- Research has shown that anonymity while acting as part of a group, characteristics often found in online games, incentivize antisocial behavior.³⁷

Online Culture

- Video games have gained an increase focus towards online interactions. All modern gaming consoles can connect to the internet and many games require a constant internet connection to even function. Video games requiring an online connection have become so common that

³¹ Ibid.

³² Ibid.

³³ Australian Government Attorney-General's Department. "Literacy review on the impact of playing violent video games on aggression." 2010.

³⁴ Ferguson, Christopher J and Cheryl K Olson. "Friends, fun, frustration and fantasy: Child motivations for video game play." *Motivation and Emotion* (2013): 37:154-164.

³⁵ Pihl, Nils. "The Psychology of Freemium." *GDC China 2013*. Mention, 2013.

³⁶ Lewis-Evans, Ben. "Anti-Social Behavior in Games: How Can Game Design Help?" *GDC 2015*. Player Research, 2015.

³⁷ Madigan, Jamie. "Anonymity and Antisocial Behavior." 10 February 2010. *The Psychology of Video Games*. Blog. 8 June 2016.

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a game's release date is considered to be when the servers go up rather than when the game is available at a store.³⁸

- Harassment and anti-social behaviors have largely been normalized on the internet by thinking they are okay in certain, compartmentalized contexts. For example, a frequent excuse for berating teammates with offensive language is that it is part of the game and the game's culture.³⁹
- Average players display mildly toxic behavior sparingly, while toxic players have more severe and frequent toxic behavior in games. Toxic behavior spreads easily, but shielding players from toxic behavior can decrease the frequency of it.⁴⁰
- Many online games provide the option to mute/block players partaking in toxic behavior. Instead of reducing foul and abusive language, however, this has made some players feel vindicated in their behavior since other players can opt out of experiencing it.⁴¹
- A tactic developers have used to combat toxic behavior is isolating antisocial players in a separate player pool from the general population. However, this can normalize their views as it seems that everyone else is partaking in the antisocial behavior.⁴²
- Virtual environments, such as video games, appear to foster antisocial behavior such as mischief and disregard for authority.⁴³
- Video game developers and prominent players are often looked upon as role models for player behavior, but it is not rare for them to have bad qualities. Some content creators are notorious for their toxic and inflammatory behavior.⁴⁴

Toxicity in online games refers to negative behavior, such as offensive language, cheating and cyberbullying, which negatively affects other players.

Electronic Software Rating Board Ratings

- The Electronic Software Rating Board (ESRB) is the video game industry's self-regulatory organization in North America. The ESRB "assigns age and content ratings for video games

³⁸ Handrahan, Matthew. "Overwatch and the death of the midnight launch." 3 June 2016. *gamesindustry.biz*. Web. 9 June 2016.

³⁹ Lin, Jeffrey. "More Science Behind Shaping Player Behavior in Online Games." *GDC 2015*. Riot Games, 2015.

⁴⁰ Lin, Jeffrey. "The Science Behind Shaping Player Behavior in Online Games." *GDC 2013*. Riot Games, 2013.

⁴¹ Ibid.

⁴² Lewis-Evans, Ben. "Anti-Social Behavior in Games: How Can Game Design Help?" *GDC 2015*. Player Research, 2015.

⁴³ Clark, Oscar. "Spellbound: Asking Questions about Habit-Forming Game Design." *GDC 2015*. Unity Technologies, 2015.

⁴⁴ Lewis-Evans, Ben. "Anti-Social Behavior in Games: How Can Game Design Help?" *GDC 2015*. Player Research, 2015.

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and mobile apps, enforces advertising and marketing guidelines for the video game industry, and helps companies implement responsible online and mobile privacy practices".⁴⁵

- ESRB ratings have three parts: the lettered rating category, short content descriptors, and a list of interactive elements.⁴⁶
 - The rating category suggests age appropriateness, for example the M rating stands for mature and means that the game it was assigned to is recommended for players that are at least 17 years old.
 - The content descriptors indicate what defined the assigned rating category and can also point out content that may be of concern to parents; they could include for example "Language" or "Suggestive Themes".
 - Finally, the listed interactive elements "inform about interactive aspects of a product, including the users' ability to interact, the sharing of users' location with others, if personal information may be shared with third parties, if in-app purchases of digital goods are completed, and/or if unrestricted internet access is provided".
- The ESRB rating system is designed to help parents manage the video game content their children are exposed to. What helps the system work as well as it does is how it is implemented and enforced by the rest of the industry.⁴⁷
 - Virtually all video game retailers refuse to sell games that have not been rated by the ESRB. It is also common practice for them to refuse to stock games rated AO, adults only, as only games with explicit sexual content or extreme and excessive levels of violence receive the rating.
 - It is common practice to not sell M rated games to minors, checking the ID of youth and requiring the presence of an adult if below age.
 - Video game console manufacturers do not support games that are not rated by the ESRB either, and modern consoles provide parental controls that can block out games based on their ESRB rating.
- The ESRB has also begun to offer rating summaries through a mobile app and its website. These provide a more detailed description of why a game is rated the category it is, for example including quotations so that parents can be more aware of the tone and content of the game's dialogue. Like the content descriptors, the summaries also include information

⁴⁵ Entertainment Software Rating Board. *ESRB Ratings*. n. d. 04 08 2016.

⁴⁶ Ibid.

⁴⁷ Ibid.

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about content that might be of interest to parents even if it did not factor into the designated rating.⁴⁸

- The ESRB rating system is as good a starting point for parents to become more involved with how their children interact with video games, but it should supplement rather than replace parent engagement and supervision.

Suggestions for Parents

- **Encourage your child to take breaks often while playing games.** Taking breaks from any activity can help make it more pleasurable. This is despite the fact that instinctively people often do not want to take breaks from pleasurable activities.⁴⁹
- **Develop time management skills with your child.** Help them keep track and even remind them of how much time they have spent playing games and how long different activities will be. For example, if you want them to stop playing in 20 minutes, make it clear that it is not okay to start a 30 to 40 minute activity.
- **Keep video game systems and internet accessible devices in public spaces at home.** This makes it easier to keep tabs on what they do in their free time and also gives you the opportunity to engage and share with them.
- **Give your child healthy and engaging activities other than video games.** If you are concerned about the time your child spends playing video games, figure out what motivates them to play and provide alternate activities that satisfy those motivations.
 - If your child is playing an online game to spend time with friends, organize activities away from the screen for them to do. With their friends they can visit the zoo, play a sport, participate in church youth activities, or even go out for some ice cream to socialize. Video games are not the only way your child can socialize with others.
 - If your child is interested in games because of the challenge they provide and the level of proficiency they require, try to find other challenging activities for them to master. Have them practice a musical instrument, perform arts and crafts, try cooking, or even participate in competitive sports.
 - Children that are more interested games' narratives could find interest in other media with engaging narratives. This includes books, comics, plays, and movies. Share and enjoy with your child some of the stories and media you grew up with.

⁴⁸ Ibid.

⁴⁹ Madigan, Jamie. "Why You Don't Burn Out on Candy Crush Saga." 7 October 2013. *The Psychology of Video Games*. Blog. 8 June 2016.

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- **Research the games your child wants before you buy.** Take an active part in which video games they choose by looking at reviews online, videos of gameplay, and evaluating the ESRB rating suggestions.
- **Use parental controls in your child's video game console or computer.** This will allow better management of what games and features they have access to. The ESRB website as well as many other online resources provide video instructions for how to do this. Parental controls can let you manage what ESRB ratings your child can play but they can also allow you to manage how your child can interact with others online.

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