Center Report

A Look at Gaming Culture and Gaming Related Problems: From a Gamer's Perspective

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Part I: Personal Experience

My interest in understanding video game addiction (particularly competitive online multiplayer games) and their effect on mental health and mental wellness among teenagers and young adults stem from my own experience and addiction to gaming in the past. Growing up my parents didn't allow me to play games until around late middle school. During high school I was extremely addicted to online multiplayer video games, in particular League of Legends. This was only possible due to my ability to access a computer on a regular basis.

When I was still in elementary school and even in middle school, games were mostly confined to consoles made by Nintendo, Play Station, or Xbox. Games were also very expensive, which increased the barrier to entry for someone like me who didn't have money to buy anything myself. Once I was in high school and had a computer to use, free-to-play (F2P) games such as League of Legends quickly became one of the main past times for me and my friends due to its accessibility. Additionally, smart phones became more and more popular during that time, so mobile games were also a source for my gaming addiction, but to a lesser degree.

Video games in general are fun and stimulating to play. Multiplayer games allow people to experience the thrills of competition in a leisurely environment. Additionally, many games allow users to connect with other people online (both friends and strangers), without having to leave the comforts of home. Being able to hang out with friends in a virtual space is an appealing reason for many students to play video games. I have a lot of good memories of playing both console games and online multiplayer games with my friends. Despite this, during my high school years and even now when I play occasionally, I can't help but notice how addictive the game can feel, and I worry about the "toxic culture" I see during games and in the gamer community as a whole.

Video games can heavily influence one's emotion; I often felt a disproportionate amount of anger and frustration when I played (compared to my other activities). Video game addiction and toxicity also impacted the lives of my friends. For me and most of my friends, our addiction stemmed initially from our competitive nature. We loved to win and hated to lose. It also was an escape from the stress and pressure we felt from school and other extracurricular activities. Eventually, we played multiple hours almost every day. Gaming became a lifestyle so engrained, that our daily and school lives were greatly impacted. I often fell asleep in class because I had played video games until 3 or 4 a.m. And, I didn't do my homework because I was spending all my time gaming. One of my friend's addiction to gaming led him to a downward spiral where he skipped classes and ultimately had to drop out of school.

Since multiplayer online gaming is a relatively new trend, many teachers in schools may not fully grasp the problems associated with video gaming and the gaming community/industry. While games often get a bad reputation for problems they don't necessarily cause, many underlying problems are overlooked.

My gaming world experiences seriously impacted my life and the lives of those around me, and as a result, I wanted to take a deeper look at the negative aspects of gaming that can lead to lifestyle imbalances and have an effect on academic performance and quality of life. This report gives an insider's perspective on gaming community and culture with the goal providing parents and teachers with a better understanding of positive and negative effects. Hopefully the information will allow those in leadership/mentoring roles to be better informed about gaming culture so they can help gamers achieve a more balanced lifestyle.

Part II: A Brief Look at Gaming History, Terminology, and Demographics

In an age where the internet and technology have made startling advancements, internet abuses and addiction are significant problems for many. The problems arise on many platforms (e.g., YouTube, social media, gaming, etc.). The focus here is on video gaming. While video games, in particular online games, often are lumped together with other internet addiction problems, there are nuances that frequently are overlooked or misunderstood.

In the past video games were primarily confined to console systems such as the Nintendo Entertainment System, Plays Station, Gameboy, etc. Nowadays, video games have expanded to other platforms such as computers and smart phones. Many games include competitive, online, and multiplayer features. Over the past 20 years, games like StarCraft, World of Warcraft, League of Legends, Defense of the Ancients (DotA), Count-Strike Global Offensive (CS:GO), Minecraft, Overwatch, and Fortnite (to name a few) have become some of the most popular online multiplayer games.
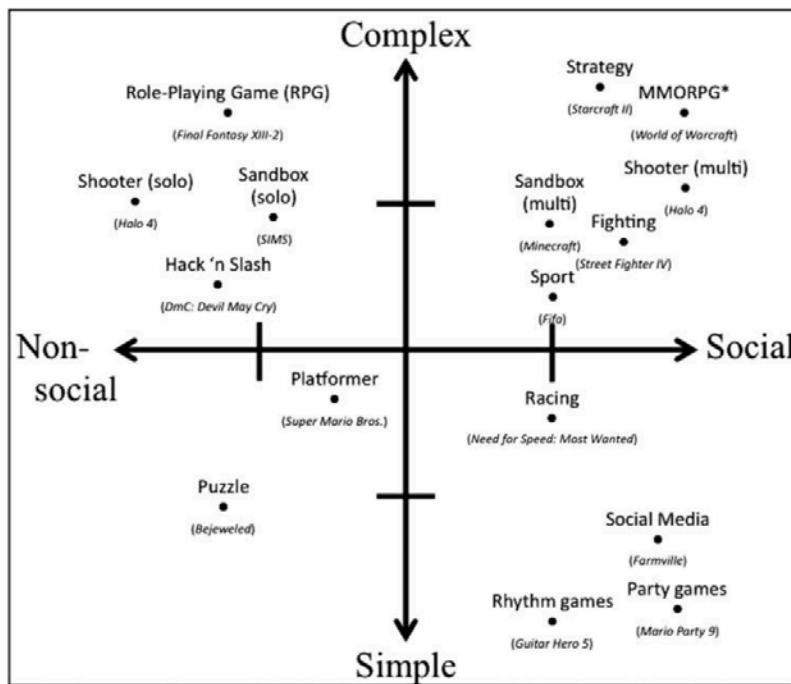
Until recently, video games were closely associated with nerd and geek culture. However, with the increase in popularity of Fortnite within the past two years, the gaming community has changed noticeably to include people who, in the past, would not be associated with the gamer community. Celebrities ranging from rappers to sport stars such as Drake, Juju Smith-Schuster, and Luka Doncic all play Fortnite. Having celebrities frequently featuring gameplay on their social media has changed how many people view video games. Online multiplayer games are becoming even more mainstream, and kids often play these games to keep up with the trends. (Note: since young people tend to look for the "next cool thing," the lifespan of online games seems to be getting shorter and shorter.) While the demographics of the gaming community has expanded, most of the fundamental issues that are ingrained in the "gaming culture" and the online multiplayer experience have not.

A Bit of History and Terminology

At first, video games were mostly single player and games on early console systems and were predominantly story driven. These games often featured fantastical elements that would immerse players into the gaming world, not unlike a novel. Although attempts to add network (internet) features to consoles occurred throughout the 1990's, online multiplayer gaming on consoles became significantly more common after the introduction of Xbox Live in 2002. Online gaming on computers also occurred in the late 1990's with games like Starcraft and Counter Strike. And within the last 10 years, mobile gaming on smartphones and tablets also has increased dramatically. The most common online types of multiplayer games are: massively multiplayer online (MMO) role-playing games (RPG) (often abbreviated as MMORPG), first person shooter (FPS), real-time strategy (RTS), multiplayer online battle arena (MOBA), and, more recently, battle royale/survival genre.

Additionally, many fighting games, sport games, and even puzzle games initially confined to couch co-op (i.e., two players on one console) now have internet capabilities, which allow players to compete with strangers online. These online multiplayer games fall into one of two categories PvE (Player vs Environment) and PvP (Player vs Player). The former is often found in MMORPGs or some shooters where players work together to fight computer-controlled enemies. While MOBA, FPS, RTS, and battle royale games mainly feature a competitive PvP environment, many games often contain both PvE and PvP capabilities. Below is a conceptual map of some main gaming genres taken from "The Benefits of Playing Video Games" by Grancic, et al (2014). My report focuses mostly on genres located in the top right section of the figure, especially competitive genres that require cooperation like MOBAs.

Figure 1

Conceptual Map of the Main Genres of Video Games (With Examples) Organized According to Two Important Dimensions: Level of Complexity and the Extent of Social Interaction Required

Note. The figure is not empirical but conceptual and is intended to demonstrate the variety of ways video games engage their users. Some genres have been necessarily excluded. The same game (*Halo 4*) was intentionally repeated to illustrate that many games have the option of being played in either a single- or a multiplayer mode. *MMORPG = massive multiplayer online role-playing game.

The way games have been monetized also has changed throughout time. In the past, most games were sold containing all content for a single payment. Currently, many online games are free-to-play (or have a relatively cheap cost), but embed in-game purchases that unlock new content, special items and perks, cosmetic items, and loot boxes. This trend has resulted in more people trying a game, and it enables game developers to hook more users. Games such as League of Legends and Fortnite use this process, which is a reason that their player base is so large. This business model has become the standard in the gaming industry and can be seen in the mobile game industry as well (and even with non-game apps).

Male/Female Demographics

When talking about gamer male and female demographics, it is important to note the difference between core gamers and casual gamers. Core gamers are made up of people who view gaming as a hobby or lifestyle. These people are extremely invested in gaming and spend most of their free time playing. When not actually playing, they often are reading about games or watching videos or live streams about games. Within the core gamer demographic, are hard-core gamers (i.e., those who are obsessed with gaming). Casual players don't play as often and usually play only mainstream games or just mobile games. Core gamers usually don't view casual gamers as real gamers and calling someone a "casual" frequently is meant as an insult.

According to Entertainment Software Association's 2018 recent report, 45% of gamers in the U.S. are female. However, among core gamers, males dominate, making the female statistic somewhat misleading. Moreover, the best estimates are that the most severe gaming problems generally involve young males. And, perhaps because of the disproportionate amount of male hard core players, misogyny is a frequent facet of game content and throughout the gaming community. Sexism and

inappropriate behavior towards females are commonplace. Players appear to conform to stereotypical masculine norms and tend to maintain a male dominant hierarchy. (It shouldn't be a surprise that nearly all pro gamers are men.) For more on these demographics, see the appended information and graphs.

Ranking Systems

Another aspect to understand about many online multiplayer games are player rankings. Games often include a ranking feature to further increase the game's competitiveness. Many video games award special items or badges that can be used in-game. Players tend to take great pride, often using their rank as a status symbol, and dominance hierarchies are common within groups of ranked players.

Systems ranking players are based on win records and originate from the Elo rating system that was initially created for chess. The system's main goal is to predict the outcomes of games based on how players are rated. When a higher rated player wins against a lower rated player (since this outcome was predicted), the higher rated player earns fewer rating points, and the lower rated player loses fewer points. If the lower rated player wins, the reverse is true. The aim is to move toward a rating that accurately reflects an individual's level of play.

Once a player has reached his/her current potential, then the player technically should not be able to climb higher and should experience a 50/50 win-loss ratio over a stretch of time. If the player is able to further improve on "rated/ranked" games, then their ranking self-corrects. This process of playing many games to move into a higher rank/rating is called "climbing" (sometimes players will also use the words "grinding to [a designated rank]").

Most gamers, even self-proclaimed casuals, care about how others perceive their rank, even if they don't actually care about the particular game itself. Because of this, many players succumb to forms of cheating, match fixing, or Elo boosting to get a higher ranking. (Elo boosting is when a player has someone of higher rank play their account in order to climb to a higher rating quickly.) Some gamers claim they are better than their rank suggests, and blame the system for making the climb difficult or tedious. Such cheating and blaming angers honest players, and it is not surprising that rank is the number one reason behind cyberbullying in games (Ballard & Welch 2017).

Part III: Gaming Disorder

Generally, when non-gamers think about gaming-related problems, the first thing that comes to mind is gaming addiction. Parents, in particular, are most concerned about this.

Casual gamers get mislabeled as "addicts" when they have developed a habit of playing games to kill time. Hard core gamers become addicted to games when it becomes a lifestyle consuming every aspect of their life.

Gaming disorder has become a designated mental disorder, with increasing attention over the past ten years (Wang & Lin, 2018). In 2014, Internet gaming disorder was added to the research appendix of the Diagnostic and Statistical Manual of Mental Disorders 5th Revision (DSM-5) as the only non-substance addiction (Petry et al., 2014). (Gambling disorder was moved to the substance use disorder category.) In 2018, gaming disorder was also recognized by the World Health Organization as a mental illness and has since been added to the 11th revision of International Classification of Diseases (ICD-11) (Rogers, 2018).

Gaming Disorder Characterized

Gaming disorder is defined as behavior "characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences" (World Health Organization, 2018). Petry, et al. (2014) state that, unlike general internet addiction, gaming disorder clearly shows an increase in risk for clinically significant issues. It has been associated with food and sleep deprivation, seizures, and even death among youths. Another study concluded that online gamers who played for more than five hours on a weekday had increased depressive symptoms, musculoskeletal symptoms (e.g. shoulder, back, and hand pain), and psychosomatic symptoms (e.g. headache, feelings of nervousness, irritation, and sleep problems) (Hellström et al., 2015).

Victor Fornari, a child and adolescent psychiatrist, states that "aggressive games involving teamwork and killing enemies tend to be the most addictive for young people" (reported in Rogers, 2018). Note that his description of gaming genre closely matches MMORPG, MOBA, and online shooter genres.

Research suggests that some youngsters classified as pathological gamers turned to games because of family conflict, neglect, or abuse (Da Charlie et al., 2011).

Hooking Players

While part of the addiction problem can be blamed on player problems and deficiencies (e.g., lack of self-control, poor time-management), developers of online games have embedded many features specifically to hook players. As mentioned, using the free-to-play business model attracts players.

Once a person has chosen to play, game developers use multiple psychological tactics to keep them playing and buying "virtual goods." For example, a common tactics is *endowment progress.* This involves providing players with artificial advancement in the game to enhance persistence (e.g., giving experience points or XP that help the player "level up"). Many gaming companies also place incentives along the way, such as a small reward every time a task is completed or a character/gaming account for leveling up. This tactic also rewards players for being loyal to a game and discourages players from leaving the game and having to start over again (Nunes & Drèze, 2006a, 2006b). Many

games also move "goal posts" where the game either keeps expanding so players can never really win or finish the game (this occurs in MMORPGs), or the game has seasons that reset everyone's progress/rank at the beginning of each cycle (found in MOBAs, online FPS, and battle royale genres). This makes it hard for players to stop gaming and can be compared to Facebook's infinite scroll feature that makes it difficult for users to stop scrolling (Fishman, 2018).

Adar (2015) has highlighted 7 psychological tactics used in games to hook users. He states:

> Gaming companies also incentivize players to buy many in-game cosmetic items by making them seem extremely appealing, or by artificially manufacturing an item's rarity/exclusivity. Additionally, many game developers use a loot box system that allows players to purchase, for all intents and purposes, a chance to get something (usually items) rare or desirable. This particular aspect of gaming is no different from gambling, and many countries have recognized this and taken steps to regulate this aspect of game.
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> Long gone are the days where games could just be great in order to generate revenue. Now, since 90% of games on the app store and Google Play are free, being a great game isn't good enough. Games must be addictive, habit forming and mind–boggling, so they can rise to the top over a myriad of other great, free games who compete on users' free time.
>
> Only games that encourage users to engage and spend regularly can survive.
>
> As such, current successful F2P games are a brew of persuasion techniques designed to achieve uncompromised engagement. Here's a short list of the most notorious persuasive methods and psychological tactics that are used in games: *Endowed Progress, Loss Aversion, Envy, Reciprocity, Scarcity, Triggering*, and *Endowment Effect*.

The increased attention to gaming as a problem around the world has led to recommendations that parents and school personnel restrict and more closely monitor gaming behavior (Rogers, 2018). It also has generated government regulation.

Government Regulation

Korea and China illustrate government efforts to regulate the gaming habits of youth or pressure gaming companies to include features that deter gaming addiction. In these countries, in order to play online games, players are required to register and verify their identity. This measure is taken to keep tabs on gamers who are minors.

In Korea for example, the Youth Protection Revision Act was passed in 2011which prevents those under age 16 from playing video games between 12:00 a.m. and 6:00 a.m. (Lee, 2011).

In China, many large gaming companies are pressured into implementing an "anti-addiction system" for teenagers under the age of 18. This involves tracking the gamer's play time to a set limit, after which, the gamer no longer can make significant progress or receive in game rewards (South China Morning Post, 2017). Recently, China has also taken major steps to regulate gaming content and internet access for youths (Niko, 2017; South China Morning Post, 2018).

In reaction, young people have used a number of strategies to work around the limitations, such as creating multiple game accounts and identity theft.

> *Without restrictions, computer games afford kids the ability to sneakily play video games without parents noticing. Many gamers, including myself, would switch the game screen very quickly (using Alt+Tab or Command+Tab controls on PC and Mac, respectively) to pretend we were being productive on our computers when parents came to check.*

One common question that non-gamers might ask is why gamers take games so seriously. The reality is that for many gamers their whole life has become invested in the games. Most of their friends play, and an in-game identity/reputation sometimes becomes worth more than one's real-world status. This makes game playing a high stakes event and a priority commitment.

To a causal player or observer, losing a game is just losing a game. But for hard core gamers, losing undermines their reputation and ranking. This not only increases the stakes of playing, but contribute to the vicious cycle of addicted game playing.

Furthermore, gaming allows people to escape from the real world. While gaming brings a sense of satisfaction to non-addicted players, one study suggests that gaming for addicted players is a way to relieve themselves of dissatisfaction in their daily life (Wan & Chiou, 2006).

> *In my own experience, gaming disorder has led to sleep deprivation throughout my high school years, as well as poor academic performance, eating habits, physical activity, and overall mental wellness. I was so addicted to games that basically during all my free time, the only thing I would think of was video game related things.*
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> *I remember being so consumed by my desire to play video games that I would have a lot of arguments with my parents, and I would also sneak in game time. Like any other addiction, I needed to get my "fix" at all costs, and if someone tried to take it away from me, I would become irrationally angry.*
>
> *Another problem I experienced was letting the game affect me emotionally. My in-game frustration would often bleed into my daily life and caused me to be extremely moody. My performance in-game would also affect my own perception of self-worth, since gaming was basically what defined me during high school.*
>
> *Many of my friends experienced these exact same issues, with some facing even greater mental and academic consequences due to this gaming addiction. One of my friends in high school got into to so many arguments with his parents over gaming that he actually ran away from home for a week, which seems extreme but shows that gaming disorder is not to be ignored. I've also seen elementary school kids throw temper tantrums when their parents take away the iPad or cell phone and tell the kids to stop playing mobile game. Clearly, growing gaming prevalence has increased the risk for children to develop gaming disorder at a relatively young age.*

Sunk Cost Fallacy for Competitive Online Games

One often overlooked factor that causes or worsens gaming addiction is the sunk cost fallacy. Because many competitive games implement a ranking system, players who lose frequently continue to play in hopes of attaining more wins or and improving their rank. This behavior, which is basically the practice of loss aversion, can really spiral out of control, especially when combined with the endowment progress effect mentioned above (Adar, 2015).

From personal experience during high school and my first year in college, I know that it's extremely embarrassing to admit to people that your rank is only silver (second worst rank at the time, third worst now) although you've been playing basically every day after school. It's like admitting that you're bad at the game even though you've invested so much time and energy into it.

I have witnessed people succumbing to the pressure of performing well countless times throughout the years, and everyone knows that this is one of the biggest reasons why players keep playing even if they don't really enjoy or care for the ranked system. For example, when I first came to UCLA, my roommate and I decided to check out the League of Legends club. All the people who showed up were quite invested in the game. During the first social event, my roommate and I would ask what people's ranks were. Most people would embarrassingly state that they were only in silver or bronze because they just played the game casually, when many likely had put a lot of time into the game.

This type of pressure created by the rank system and the shaming/teasing of players who aren't ranked high not only creates an environment that can foster toxicity, hurt feelings, and embarrassment, but also can make people obsess over their rank. This often results in them putting more time into playing in hopes of improving their rank and legitimize the time and effort they put into the game.

My brother personally, experienced this exact obsession when he wanted to get Diamond (one of the highest ranks) in a game to prove to others and to himself that he was good at the game after playing it for years. During the phase when he was most addicted, the anger and frustration he experienced from gaming had serious repercussions. During his "grind" to diamond, he put off doing homework, he skipped classes due to late nights of gaming, and he appeared emotionally unstable when he lost too many games and got demoted a few ranks. Additionally, the more games he lost, the worse he played. This, however, only made him want to play more to either break even or not get demoted. He was in a vicious cycle where he put more and more time into the game while only getting worse, and this made him feel terrible about himself.

I am confident in saying that a good portion, if not the majority, of hard-core players who care deeply about their rank experience similar problems and frustration and anger as they lose games and struggle in climbing.

Fueled by the sunken cost fallacy and a rank system that only allows a skilled minority to make substantial and satisfactory progress, hundreds of thousands of players are "hard stuck" in an addictive cycle. For example, around 50% of the player base in League of Legends (and other online games) are usually in silver rank or below (or the equivalent Elo for other games). Due to the nature of the Elo/rank system, a large number of average players never make satisfactory progress because they already have reached their maximum potential.

Even now, as a player who doesn't care aboutr my rank anymore, if I lose multiple games in a row, I can't help but want to play more to either break even (in terms of wins vs losses) or at least try and get one win before I end my gaming session. A typical scenario::

I want to play one game with my friend before I go to bed, and the game goes poorly, and we lose. My friend says that we can't end on a loss, so we play another game where we lose again. This time we tell ourselves that we'll just play one more and if we lose we'll stop. After we lose the third time, we conclude that we've already put too much time into gaming to end on such a bad note. We continue playing, sometimes for another 2 to 3 games until we get our first win. At this point, it is many hours past bed time.

Although we finally attained the goal of winning, which was supposed to give us a sense of satisfaction, the reality of the situation is that we have reduced the amount of sleep that night, with an impact on the next day. More often than not, we feel pretty upset by about our poor decisions. This cycle is worsened when winning no longer brings happiness.

Many people play games just out of habit. Winning doesn't really trigger much positive emotion, however losing usually triggers negative emotions. As a result, playing video games at this point becomes a lose-lose scenario for many gamers.

Part IV: Gaming Toxicity, Online Disinhibition, and Cyberbullying

While parents and teachers mainly focus on gaming addiction, toxic events that occur during games and in the gaming community can have negative outcomes on a young gamer's well-being.

Toxicity in games usually takes the form of abusive or negative language or behavior. In effect, this is cyberbullying (Blackburn & Kwak, 2014). Studies have shown that toxic language is found in 60% of matches for League of Legends and is "fueled by the inherent competitiveness of MOBA games" (Märtens et al., 2015). Researchers also have found that toxic language varies as the game progresses and it becomes clearer which team is going to win (Märtens et al., 2015). During the late stages of a game, the winning team usually experiences less toxicity, while the "need to shame and blame teammates" is much greater for the losing team (Märtens et al., 2015).

In many team games, voice chats are used to allow team communication and strategic coordination. However, because games often match up strangers online, intra-group conflicts arise, especially when the team is struggling (Kwak et al., 2015). As a result, chatting features also enable teammates to "flame" (verbally abuse) each other for either "messing up" or doing poorly. Players who play well (are ranked high) or think they are really good usually speak from a position of dominance and often taunt and harass other players for their poor performance. For MOBA/FPS gamers, this becomes a rite of passage, where beginners (noobs) are flamed/blamed when they first learn the game (despite the high complexity and learning curve for these games). And when the beginners improve, they usually feel like they now have the right to cyberbully others.

Another way in-game toxicity arises is through direct gameplay. For example, sometimes players intentionally play poorly so that the entire team loses or at the very least experiences difficulty (sometimes just for fun or because they are giving up). This behavior is usually called intentionally feeding or inting, for short. Some players even "rage quit" mid-game and leave teammates on uneven footing against the opposing team. All these behaviors can cause players on a team to be extremely frustrated and upset and can lead to more toxic behavior.

About Online Disinhibition

Suler (2004) presents a reasoned view of the positive and negative facets of the online disinhibition effect. He describes the phenomenon as one where internet users "say and do things in cyberspace that they wouldn't ordinarily say and do in the face-to-face world. They loosen up, feel less restrained, and express themselves more openly."

Benign disinhibition is seen as causing people to do relatively positive things, such as openly engage or do random acts of kindness. Toxic disinhibition is when internet users wield offensive language or display acts of anger and hate. (The tendency for people to engage in their pornographic addictions as well as the use of the dark web for illegal activity also falls under toxic disinhibition.)

Suler categorizes online disinhibition into six concepts: dissociative anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination, and minimization of status and authority. Here are excerpted brief descriptions from Suler that highlight the relationship between online disinhibition and gaming toxicity.

Dissociative Anonymity ("you don't know me"). This involves the concealment of one's identity afforded by the internet. Players can hide behind a username with no fear of being tracked down, especially if they are tech savvy and know how to hide their IP address. According to Suler:

> *When people have the opportunity to separate their actions online from their in-person lifestyle and identity, they feel less vulnerable about self-disclosing and acting out. Whatever they say or do can't be directly linked to the rest of their lives. In a process of dissociation, they don't have to own their behavior by acknowledging it within the full context of an integrated online/offline identity. The online self becomes a compartmentalized self.*

Dissociative anonymity within the gaming community is a huge contributing factor to online toxicity. Players often berate, belittle, bully, and threaten others with no fear of repercussions. Gamers often engage in toxic behavior because they are able to dissociate their poor behavior with their real selves. They view their toxic behavior as part of the gaming culture and readily dismiss their wrongdoings with little or no guilt. They buy into the collective identity that is "the anonymous and toxic gamer". For example, some people are civil and politically correct in person, but when they play videogames, they think it is funny to use racial slurs and know there is little likelihood of repercussions.

Invisibility ("you can't see me"). While dissociative anonymity grants players concealment of identity, invisibility refers to the lack of physical presence in a situation. According to Suler:

> *…the opportunity to be physically invisible amplifies the disinhibition effect. People don't have to worry about how they look or sound when they type a message. They don't have to worry about how others look or sound in response to what they say. Seeing a frown, a shaking head, a sigh, a bored expression, and many other subtle and not so subtle signs of disapproval or indifference can inhibit what people are willing to express.*

Suler further notes, "…invisibility gives people the courage to go places and do things that they otherwise wouldn't" (e.g., onto websites containing inappropriate or sexually explicit material). Invisibility also gives players even more freedom to act out without having to face real life repercussions and further allows users to compartmentalize their internet self. Dissociative anonymity and invisibility are the most obvious enablers of in-game toxicity.

Asynchronicity. This describes the delayed or lack of immediate reaction to someone's behavior on the internet. Suler likens asynchronicity to "…speaking to someone, [then] magically suspending time before that person can reply, and returning to the conversation when one is willing and able to hear the response." He further notes:

> *In a continuous feedback loop that reinforces some behaviors and extinguishes others, moment-by-moment responses from others powerfully shapes the ongoing flow of self-disclosure and behavioral expression, usually in the direction of conforming to social norms. In e-mail and message boards, where there are delays in the feedback, people's train of thought may progress more steadily and quickly towards deeper expressions of benign or toxic disinhibition to avert social norms. Some people may even experience asynchronous communication as "running away" after posting a message that is personal, emotional, or hostile. It feels safe putting it "out there" where it can be left behind.*

While this occurs less frequently in-game, this is a common problem for online forums, or any website that allows users to leave comments. Considerable toxicity occurs on gaming forums where asynchronicity allows people to pull off an "emotional hit and run."

Solipsistic Introjection. Solipsistic introjection can result in people thinking less about what they are doing. As defined by the Merriam Webster dictionary, solipsism is the "theory holding that the self can know nothing but its own modifications and that the self is the only existent thing". Since most forms of online communication are through text, Suler notes that it is common for people to subvocalize and project someone else's words/comments on themselves. He states that:

> *This conversation may be experienced unconsciously as talking to/with oneself, which encourages disinhibition because talking with oneself feels safer than talking with others. For some people talking with oneself may feel like confronting oneself, which may unleash many powerful psychological issues.*

Dissociative Imagination. This is described as people trying to or thinking they can separate their real life behavior from their internet behavior. For example, fantasy/role playing gamers may

subconsciously link their online behavior to their fictional character in the fictional world of a game. Anonymity, invisibility, and escapism that the internet provides worsen this problem and allow people to completely believe that their online self is not really who they are. Besides feeling safe behind their anonymity, some people feel no remorse because they have compartmentalized their online persona from their everyday self. Emily Finch, a criminal lawyer who studies identity theft on the internet, noticed that people often "…see cyberspace as a game in which normal rules of everyday interactions do not apply [and think] that they can adopt and shed certain persona simply by logging on and off" (stated in David, 2015).

Minimization of Status and Authority. This involves viewing the impact of one's real life authority as significantly reduced online and when playing games. This can happen because the internet affords invisibility and anonymity with respect to most indicators of real world status and authority. When gamers play online, they tend to view everyone as a peer, and solipsistic introjection further creates a sense that everyone else is probably just like them. Since normal social cues that mitigate against bad behavior are not present, it is easy to act out indiscriminately. The minimization of real-life status and authority enables gamers to put a higher value on in-game ranks than other criteria in creating a status hierarchy. Such an elevation of ranks is associated with a range of toxicity problems.

Online disinhibition not only can cause toxic behavior, but also can enable gamers to engage and get away with mischievous/deviant behavior (Suler & Philips, 1998). While deviant behavior is arguably not always toxic, it can elicit toxic responses from other gamers. Usually deviant players aren't trying to make their team lose; they just are not taking the game seriously and not cooperating and are annoying. Sometimes, however, they incite intra-team conflict and escalate team toxicity (Kwak et al., 2015). A common example is trolling (making random unsolicited and/or controversial comments on various internet forums with the intent of provoking emotional reactions from others).[1] Trolling in-game is extremely hard to crack down on because the behavior usually results in gameplay that is only subtly different from normal performance (unlike inting) (Martin, 2013). It is safe to say that more gamers engage in trolling behavior than toxic behavior; however, the act of trolling frequently leads to toxicity (e.g., blaming, flaming).

> *The competitive online gaming community has become known for its toxicity. Toxicity in games can be extremely brutal. In my experience, I could be doing well and minding my own business, then suddenly, a player starts blaming me for his/her poor performance. If s/he is playing with friends, they gang up to engage in cyberbullying. I'm usually on the receiving end, but I admit that I've been caught up on the other side as well.*
>
> *Players have different opinions about what constitutes as toxic behavior. Some who engage in such behavior don't think what they're doing is toxic, and they often double down and call people soft for being so easily offended or hurt.*
>
> *For the majority of players, it takes very little toxicity to ruin the mood. I could be playing well, and some random stranger starts affecting others or me personally through abusive language or inappropriate behavior. And when I was frustrated by someone else's mistakes or at my loss streak, I often took it out on others.*
>
> *Whether one is receiving or dishing it out, the toxicity is extremely harmful to one's confidence, self-worth, and other aspects of well-being.*

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[1] https://www.urbandictionary.com/define.php?term=Trolling

Toxicity in the Gamer Community

MOBAs and competitive multiplayer shooters, such as CS:GO, have a reputation for generating a toxic community. MMORPGs, such as World of Warcraft, tend to produce a relatively less toxic community because gameplay is centered around PvE elements, with gamer cooperation less pivotal. So, even though MMORPGs are online multiplayer games, the gaming is closer to that of a single player game (Chen & Duh, 2007).

With respect to famous gamers, some are known to behave so toxically that their poor behavior is almost a trademark of their brand. When they livestream their games or post their gameplay on YouTube, they display bad behavior that reinforces the blaming and flaming of other players. These streamers also often "troll" and encourage their fan-base to react immaturely in comment sections or livestream chats. And given their position in the gaming community, they often become the role models for regular and new players.

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Video Games and Violence

In recent years, video games have also been blamed for causing real-world acts of violence like school shootings. Many researchers have concluded that playing violent video games, just like watching violence on television, does correlate with an increase in aggressive behavior, cognition, and tolerance of violence (Anderson & Bushman, 2001). Some researchers believe that this correlation is proof of causation, while others suggest that gaming is more responsible for attitudinal (as contrasted with behavioral changes) with respect to violence and is a poor predictor of violent behavior (DeCamp & Ferguson, 2017; Wei, 2007).

As a gamer, I tend to think that those who act out violently have deep seated emotional issues. I believe that players who are drawn to real-life violence also choose violent video games and consume other forms of media that present excessive violence. I find support in findings from research reporting that family violence, innate/trait aggression, and male gender were predictive of violent crime while exposure to video game violence was not (Ferguson et al., 2008).

</div>

Part V: Misogyny in the Online Gaming Community

With so many teen-aged and mid-twenties male hard core gamers and so few females, many situations arise that reflect gender and power imbalances. Male players often seek the attention of the females in inappropriate ways, and misogynisitic behaviors are manifested.

For example, it is not uncommon for attention-seeking males to gift in-game items, use flattering remarks, provide extra help, and so forth. The downside of this seemingly positive behavior is that it degrades the game and patronizes female players and even leads some males to pose as females online.

Misogyny creeps in when online gaming requires cooperation and voice chatting by teams is an essential facet of the game. While males chat easily, females often are more cautious because of the frequency with which they are subjected to sexist slurs and put-downs (Brehm, 2013). The problem is so pervasive that a quick search on any gaming community forum will find comments such as:

> *Actually girls play CS:GO less because males and females are wired differently.*

> *It's cringeworthy as hell. I queue with a female friend of mine pretty regularly and almost every match it's GRILL?! GRILL?!* Honestly, I was starting to think we were starting to get past that women in gaming stereotype but then I see this shit in a game that demands a more mature attitude in order to play well.*[2]

*Gamer guys use girl and grill interchangeably. Grill is gamer slang used as a meme (use of this term usually is associated with immature boys).

> *We have a little gaming community and we know each other well. We have some girls also in our tribe. They really never talk ingame. No callouts and anything, because if they do, the shitstorm begins.*

In general, the gaming community tends to portray females as bad at gaming. This can make a female gamer self-conscious and feel excessive pressure to perform well. Researchers have noted as a significant theme that "female gamers felt that they were playing as a representation not of their own ability but were representing all female gamers," and that, even when female gamers do well, they often receive back-handed comments along the lines of "you're pretty good for a girl" (McLean & Griffiths, 2018).

Females, who often enjoy playing supportive roles, often are mocked for doing so because these roles are seen as relatively easy and inferior. And when female gamers play better than male pros, some in the gaming community assume they are cheating. All this exacerbates stress, pressure, anxiety, and perceptions of self-worth.

The stereotype about female players is reinforced by the failure of the first all-female pro team, *Team Siren,* in the League of Legends pro scene. Their failure has become one of the longest running jokes/memes within the gaming community.

At the same time, it appears that some gamer females play into male sexual fantasies and innuendo in online interactions. For example, a quick google image search of "gamer girl" produces images of females wearing provocative clothing. Whether produced by females or males, such images are oversexualized, sexist, and too often misogynisitic. Image problems are exacerbated by the fact that game developers tend to create hyper idealistic/unrealistic characters and archetypes for females and males (Tassi, 2012).

Although many gamers believe they can separate their in-game attitudes and behavior from the real-life actions, it remains a concern that the sexism online will bleed into everyday living.

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[2] https://www.reddit.com/r/GlobalOffensive/comments/3pc9qa/actually_girls_play_csgo_less_because_males_and/

I also wanted to address an even more unpleasant and extreme side of online misogyny that is usually associated with involuntary celibates, referred to by gamers as incels. Incels usually are white, heterosexual males who seem unable to find romantic/sexual partners. As a group, they tend to be extremely misogynistic, resentful, and have a reputation for encouraging violence. Most normal gamers disapprove and make fun of incel culture. However, the reality is that incels are in the gaming community and add to the problem of misogyny.

Finally, a mea culpa: In pursuing this report, my focus was on actively relating the major problems related to gaming. After writing this section, I realized that for most of my research, I was unaware that I was overlooking many problems surrounding the female gaming experience. I am an example of how deeply ingrained the problem is and how often female gamers and their struggles are marginalized.

Part VI: About Helping Those Affected

Parents, teachers, and society tend to blame the games for gaming addiction and toxic behaviors. However, the causes of addiction and bad behavior are complex and so are the solutions.

Those who are uninformed often reiterate negative stereotypes, make groundless claims that all video games are bad, and use terms such as "video game addict" to describe any gamer. In order to address the problems effectively, teachers, parents, and other who want to help must acquire a reasonable understanding of gaming culture, mechanics, and motivations. Helping without such understanding is a recipe for ensuring a lack of communication with gamers.

Gaming addiction can function as a coping response for stress, self-esteem problems, insecurity, neglect, abuse, and mental disorders (Maryland Addiction Recovery Center, 2016; Wood, 2008). Richard Wood's (2008) case study highlights the confusion surrounding the video game culture and addiction. In addressing help for those addicted, he stresses that the first step is to be certain that the person who is viewed as "addicted" to video games is actually addicted. Then, it is essential to move beyond directly attacking the symptom (i.e., gaming addiction). Rather than forcefully limiting or punishing game playing, the emphasis needs to be understanding and addressing deeper issues that may be leading to gaming addiction and on helping gamers improve coping skills (Wood, 2008).

Research findings suggest that cognitive behavioral approaches can play a role in changing adolescents' attitudes toward gaming (Chiou & Wan 2007; Chiou, 2008; Young, 2009). Such interventions help youngsters understand and address the "…clusters of cognitions that relate to: (a) the salience and over-valuing of gaming rewards, experiences, and identities, (b) maladaptive and inflexible rules about behavior, (c) the use of video-gaming to maintain self-esteem, and (d) video-gaming for social status and recognition" (Delfabbro & King, 2015).

Studies also report that some gaming addiction among young people stems from family relationship problems (Da Charlie et al., 2011; Schneider et al., 2017). To address these problems, family therapy has been recommended (Liu et al., 2015). And, where this is not an option, mentors are seen as a potentially positive influence.

With respect to preventing addiction, toxicity, cyberbullying, and misogyny in the gaming community, social emotional learning can play a key role, as can availability of a range of engaging leisure activities. Monitoring youngsters' game content and gameplay to identify and address problems is a given. A continuous need is to help young gamers internalize what is appropriate behavior in the nongaming world (Chiu et al., 2004).

Now more than ever, teachers, parents, and mentor figures should continue to educate themselves about online gaming in order to help young people navigate the negative aspects of this popular past time. This will help young gamers have a more positive gaming experience, achieve a more balanced lifestyle, and become more self-aware, while avoiding the pitfalls.
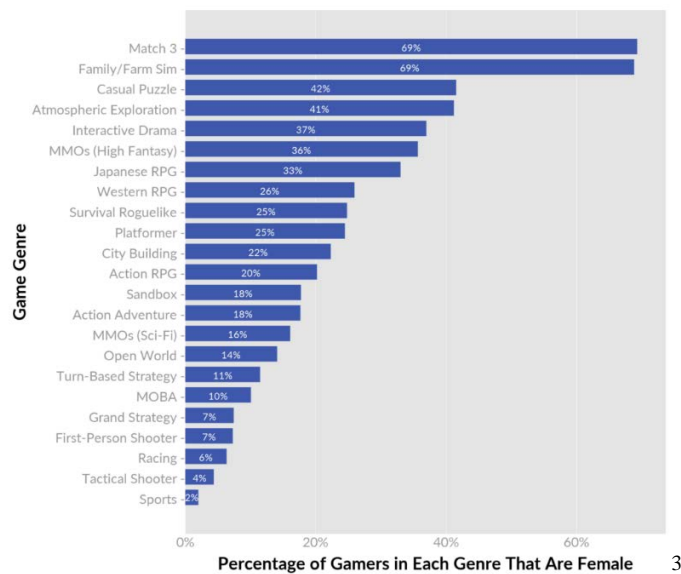
A Final Personal Comment

Since there is so much focus on the negative consequences of gaming and particularly gaming addiction, I want to reiterate the fact that for me gaming generally has been a source of fun and good memories. I still strongly believe that gaming is a great activity for friends who want to do something together to hang out, and it also allows people the ability to socialize and make friends with people on the internet. (There are a lot of nice people on the internet, and many have built life-long friendships.)

Additionally, many studies have concluded that video games can have educational and health/mental health benefits (Granic et al., 2014; Grey, 2015; Griffiths, 2002). For example, gaming can help develop critical thinking, communication, team working skills, hand-eye coordination, and social connections.
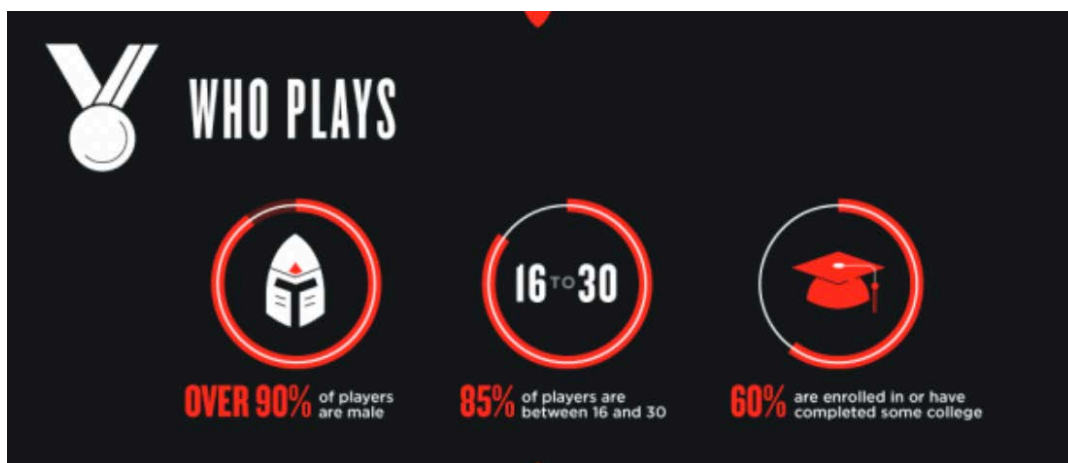
Despite all this, because of the negative facets I have discussed in this report, playing competitive online video games has turned into something that I (and others I know) enjoy less and less. The question at this time is: Can the problems highlighted be minimized and the benefits of gaming be maximized? I hope so!

Appendix -- More About Male and Female Demographics

The figure below, created by the game analytics consulting practice called Quantic Foundry, shows that most computer game genres are predominantly played by males. These games usually are strategic, competitive, or violent and also have a very small female player base. They also are genres closely associated with the core-gaming community. Nick Yee, the cofounder of Quantic Foundry, writes that, "a game dev we recently chatted with mentioned that some designers she works with still assume that only 5% of core gamers are women, and that the quoted 41% [the 2016 ESA statistic] of women are primarily casual gamers" (Yee, 2017).
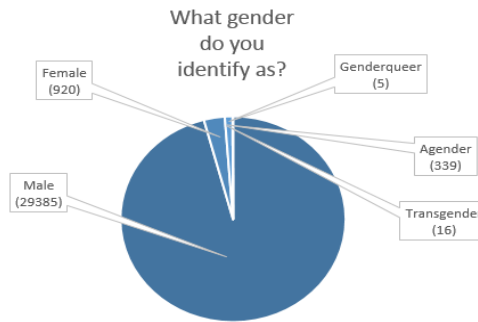

Additionally, infographics (figure below) from RIOT, the company that made League of Legends shows that over 90% of its player base is male. This infographic was released in 2012 and appears to be the last statistic of this kind that was reported by RIOT.

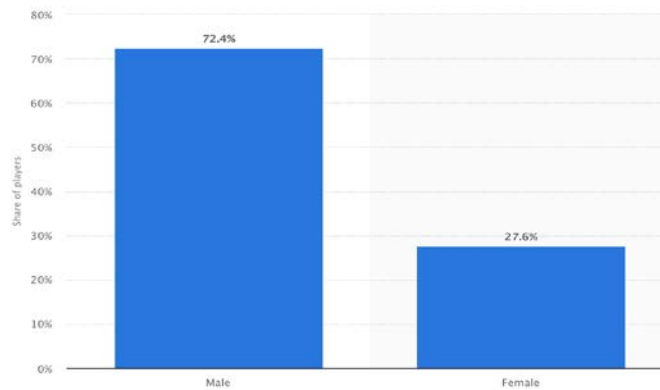
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[3] https://quanticfoundry.com/2017/01/19/female-gamers-by-genre/
[4] https://www.ign.com/articles/2012/10/15/riot-games-releases-awesome-league-of-legends-infographic

In 2015, user electricf0x from the DotA2 subreddit conducted a demographics survey of the DotA2 community on reddit. Below is the gender break down again showing that the MOBA genre is predominantly played by males.
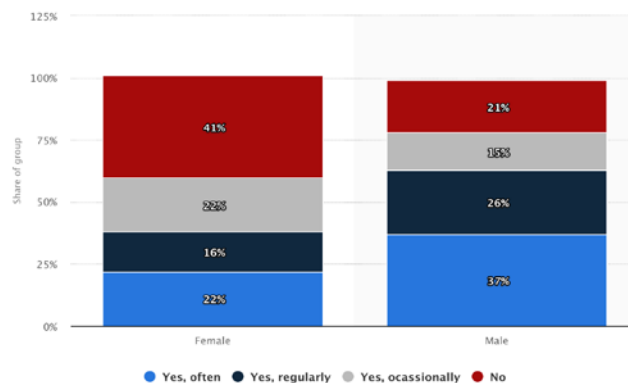

5

Fortnite, one of the most popular games within the last two years also has a male dominated player base, as seen in this recent statistic below (distribution in the U.S. as of April 2018). While Fortnite is not a MOBA, it is in the survival/battle royale genre, which is competitive and based around the third-person shooting game style.

6

Additionally, even for MMO games (which are less competitive), the data indicates that males make up the majority of the player base as seen below (this statistic was of U.S. players in 2016).

7

5 https://www.reddit.com/r/DotA2/comments/2ybvzq/results_of_demographics_survey_for_rdota2/
  https://imgur.com/a/gpfME
6 https://www.statista.com/statistics/865625/fortnite-players-gender/
7 https://www.statista.com/statistics/662234/share-gamers-play-mmo-games-usa-gender

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