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"It feels more real": An Interpretive Phenomenological Study of the Meaning of

Video Games in Adolescent Lives

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Abstract

The pervasiveness of video gaming among adolescents today suggests a need to understand how gaming affects identity formation. We interviewed 20 adolescents about their experiences of playing, asking them to describe how they used games and how game playing affected their real-world selves. Adolescents presented a complicated developmental picture: gaming placed players into virtual worlds that felt "real"; games were used to practice multiple identities; and gaming, often undertaken within a world of hyper-violence, provided stress relief, feelings of competence, and relaxation. Gaming occurred in complex "virtual" but "real" social arenas where adolescents gathered to interact, emulate and develop identities.

What is known or assumed to be true about this topic:

Social and environmental contexts are essential factors shaping identity development in adolescents, yet little is known about whether and how playing video games may affect these factors. In 2015, 72% of adolescents played video games and spent a daily average of 1 hour 21 minutes playing. Previous research has shown a relationship between media exposure to risk-taking behavior imagery and subsequent uptake of that behavior, suggesting the power of media to shape normative behavior among adolescents.

What this article adds:

The aim of this article is to examine, from the perspective of adolescent video game users, the experience of frequent engagement in virtual worlds and to explore whether and how these complex immersive video game environments may figure in adolescent self-perception and identity development. Despite the potentially profound effect of video game participation on adolescent development, little attention has been directed to these processes. This study suggests that a portion of adolescent identity work is happening via gaming, affording adolescents "virtual" space to develop, test and manipulate possible identities.

"It feels more real":

An Interpretive Phenomenological Study of the Meaning of Video Games in Adolescent Lives

Social and environmental contexts are essential factors shaping identity development and sense of self in adolescents,¹⁻³ yet little is known about whether and how playing video games may affect these factors. Historically, adolescent development has taken place entirely within the "real" world, where family, school and friends form the ecological context within which adolescents learn and develop. ⁴⁻⁶ Experimentation in everyday life, allowing for creative role and identity development, has long been available in such formative activities as theatre, sports, scouts and community groups. However, the advent of the internet and video games affords adolescents greater opportunity to construct agentic virtual selves who can interact fluidly in virtual "worlds." Video games present a fundamental shift in opportunities for social experimentation, role performance and relationship construction for adolescents. The pervasiveness of video game use among adolescents ⁷ suggests a need to understand how participation in virtual worlds affects the developmental processes of identity formation. Despite the potentially profound effect of video game participation on adolescent development, little attention has been directed to these processes. Instead, most research on video game use has addressed the much more limited question of how involvement affects attitudes, beliefs, and practices regarding risk behaviors.⁸⁻¹¹

The aim of this article is to examine, from the perspective of adolescent video game users, the experience of frequent engagement in virtual worlds and to explore whether and how these complex immersive video game environments may figure in adolescent self-perception and identity development. We report findings from a qualitative study describing how adolescent video game players perceive themselves in relationship to the games they play and the factors that motivate them to play extensively. Using interview data, we examine how adolescents use video games to shape, hone and transform their emerging identities and how aspects of game design appeal to the developmental stage of adolescents.

Background

Adolescent development and video games

Adolescence has been characterized as a time of intensive identity development. ¹²⁻¹⁶ Adolescents seek out new experiences, have strong emotions, develop senses of selfworth, establish important relationships outside of the family and engage in exploring various potential selves.¹⁷ In the United States, adolescents between the age of 13-18 spend significant time using online electronic media, including video games. In 2015, 72% of adolescents played video games ⁷ and spent a daily average of 1 hour 21 minutes playing.¹⁸

Previous research has shown a relationship between media exposure to risk-taking behavior imagery, such as smoking or drinking, and subsequent uptake of that behavior,¹⁹⁻ ²⁴ suggesting the power of media to shape normative behavior among adolescents. Research on the effects of video games on adolescent development has primarily focused on violent game play and its relationship to aggression.^{9-11,25,26} A recent meta-analysis suggests that exposure to violent video games is causally linked to increased aggressive behavior, aggressive affect and aggressive cognition.⁸ For example, exposure to the violent action game *Grand Theft Auto IV* predicts higher levels of moral disengagement.

However, research also indicates that playing video games may have positive consequences: improvements in a range of visual-spatial skills, increased knowledge and skills when educational games are played, improved activity levels with exercise games, increased empathy with prosocial games, and feelings of achievement, friendship and community.²⁸⁻³⁰ Together this research indicates gaming has complex multi-faceted effects on adolescents.

Video games today

The most striking difference between video games and traditional media is that video games are interactive. Players act on elements presented to them and the game changes based on the players' actions. Video games are played on varied platforms, including consoles, handheld gaming devices, computers, smartphones and tablets, allowing gamers to play everywhere. Players may experience being on a virtual battlefield, going into space, exploring the "past" or a version of the future, or playing in a fantasy world limited only by the affordances of the game and their imaginations. Many games have multiplayer modes, allowing players to play with friends either in the same room or physically far away, as well as with people they have never physically met, creating new ways for people to interact and be with others. Video games also serve as social media, with some games hosting large, interactive virtual communities.³¹

Methods

Framework

This was an interpretive phenomenological (IP) study. In IP, interpretation draws from Martin Heidegger's conceptualization of 'being-in-the-world', which understands people as inseparable from the context of their lives.^{32,33} Heidegger argues that a person's possibilities are shaped by the worlds they inhabit, that worlds are not only geographic, but are also constituted by interests and concerns, and that a person may co-inhabit several worlds.^{32,33} IP researchers gain a deeper understanding of the nature of everyday experiences by exploring both the content and the context of participants' actions, by studying persons, events and practices in their own terms in order to understand the participants' worlds.³⁴ These explored worlds consist of meaningful sets of relationships, practices and language situated both in time and place.³²⁻³⁴

Heidegger also posits that there are three ways of being-in-the-world: ready-tohand, unready-to-hand, and present-at-hand.^{32,33} Ready-to-hand is the practical general intuitive sense (pre-ontological) of being, which people exist in most of the time. In this state, the world is taken-for-granted and in a state of normalcy. This familiarity with the world is constitutive for humans. If there is breakdown, however, and something is not functioning as expected, it becomes noticed, and unready-to-hand. When one actively reflects on and studies something, such as when faced with a completely new task, they are in the present-at-hand mode.

Participant selection

A convenience sample of adolescents was recruited from a large west coast metropolitan area via flyers placed on publicly accessible message boards and snowball sampling. Participants were initially screened for eligibility via telephone. Inclusion criteria were: aged 13-21, able to speak and write English, and self-reported video game play for at least two hours a day on most days during the past year. Parental consent and participant assent were obtained for participants under 18.

Procedures

In-person, individual semi-structured interviews were conducted in locations selected by the participants. Interviews lasted between 30 minutes and 1.5 hours, were audiotaped and transcribed verbatim. During interviews, participants were given a demographic survey, asking age, race/ethnicity, stage in school, hours per day spent playing, age they started playing video games, favorite games over time and current favorite games. Using open-ended interview questions, adolescents were asked to describe life experiences with school, friends and family, their favorite video games, instances of game play that stood out for them, and to reflect on what gaming meant to them. Five adolescents were observed while playing games of their choice and fieldnotes were taken.

Data were coded using an inductive approach focused on identifying narratives, themes, and strong exemplars as described by Benner.³⁴ Initially, raw data were read multiple times and sections coded with direct descriptors based on researcher understanding of the dialogue. Portions of data were shared with other qualitative researchers to refine code development. NVivo software was used to facilitate data management. ³⁵ Using IP methods, three narrative analytic strategies were employed to interpret the data: paradigm cases, thematic analysis and exemplars.^{34,36} Paradigm cases were strong illustrations of the concern under study, clarifying meaning and leading to understanding. These cases were seen in their entirety, with researchers moving from part to whole, checking that interpretive findings flowed from the data. Thematic analysis allowed for within-case and cross-case examination of the data. Meaningful patterns, stances and concerns were considered, with an understanding that lives were ambiguous, inconsistent and messy.³⁴ Exemplars were used to illustrate and convey the meaning of the various aspects of a paradigm case or thematic analysis. Together, these strategies were designed to provide the basis for entering practical worlds and understanding socially embedded knowledge. As findings emerged, they were also shared with other qualitative researchers for feedback and refinement. Study procedures were approved by the authors' university Committee on Human Research.

Findings

Participants

A total of 20 participants had a mean age of 17.7 (SD 2.7), ranging from 8th graders to college juniors. Seventy-five percent were male. Participants played video games a mean of 3.8 hours/day (SD 1.2) and started gaming at age 6.5 (SD 2.9). Reflecting the sampling area, the participants were racially diverse. See table 1 for characteristics of individual adolescent study participants.

Themes

Adolescents presented a complex picture of the effects of video gaming on their lives. Identified themes included (1) gaming as emplacing players into virtual worlds that can temporarily assert ascendency over the real; being-in-the-game-world; (2) gaming as vehicle to practice, extend and hone identity, including gender identity and the enmeshment of virtual and real life; (3) gaming as liberation: freedom, empowerment, control, feeling good, relaxation and stress relief; and (4) gaming as aggression release: the experience of violence.

Gaming as emplacing players into virtual worlds that can temporarily assert ascendency over the real: Being-in-the-game-world

Gaming was an important part of participants' lives and was used to fill a variety of social and entertainment needs. Video games were immersive, performative environments, wherein participants entered, engaged with the "game world" and overcame obstacles to emerge victorious, or, alternatively, became frustrated and angry. (See supplemental appendix A for list of games played by participants.) Participants spoke of game worlds as somewhere they would "go" to have fun, have experiences they could not have in the real world, relieve stress, engage in relationships, gain skills and increase feelings of self-worth. Playing created a space in which they entered a state of engaged practical activity while the "real world" dropped away around them, with the experience often eliciting strong emotion. When asked how he felt in the game world, Tom, age 19, stated: "Feel good, like nothing really matters". (All names are pseudonyms.) Games also elicited frustration. During an observation, a 13-year-old gamer playing *Grand Theft Auto V*, repeatedly tried to complete a mission that had a goal of killing a rival motorcycle rider. He became so frustrated with his inability to make the kill that he stopped playing, laid on the floor and cried, saying repeatedly that he "hated" the motorcycle rider (Conner, age 13).

Participants accepted video games as created, their real-life creators receding into the background and the conditions of game play taken-for-granted. The platform supporting play (computer, console, etc.) became a tool that allowed access to the game content but was otherwise transparent. The content constructed the world in which the gamer played, but was rarely questioned or problematized: it was mere background to the activities of the games. For example, several of the participants discussed "grinding," the repetitive killing of monsters to increase skills and move up levels. Participants described doing this repetitive work without complaint or question, "just part of the game" (Ellen, age 21). When players entered the game world, they learned skills and limits necessary to successfully navigate and interact with the game environment and took deliberate actions to increase their chances of success. For example, Ellen described getting her avatar virtually drunk prior to grinding, which decreased the avatar's dexterity, thus making practice more arduous, allowing Ellen to become even more skillful. The game world was then ready-to-hand with the limits and rules invisible to players, accepted as the reality for that game.

The structural constraints of these virtual worlds were, if anything, even more taken-for-granted than those of the real world. Only one participant questioned the specific limits, boundaries and the capabilities of the technology, noting that he was limited in *Call of Duty: Modern Warfare* games to predesigned customizations for his character, "It's what the game designers want you to be." He noted the contrast with role-playing games (RPGs), where the customization was "limitless" (Ryan, age 20). Participants were aware that games were designed, as several expressed desires to become professional designers, but once they entered the game world, this awareness receded and their experience was unreflective.

Immersion in the game was an important element of playing. One participant, reflecting on his experience with a first-person-shooter game:

During [final] exams I bought a game called *Far Cry*, and it was this game and it just like sucked me in and I played like 12 hours straight 'cause it was just so

good... I just felt like I couldn't stop... I felt like I was like in the world (Tom, age 19).

Tom described complete engagement with the world of the game and experienced his role in the conflict as vital. In the game space, he had important roles to fulfill and goals to meet and the immediacy of these superseded his need to study in the real world. His role as a college student moved to the background as he became his character during his time in the *Far Cry* world. Tom was "worlded" by the game, with his possibilities, interests and concerns shaped by the world of *Far Cry*. While from a psychological standpoint one might interpret this as avoidance behavior, such an interpretation fails to capture the way games offer reassurances of competence and contribute to assuaging the anxieties that studying for exams may provoke. Another participant, discussing the game *Halo* stated:

When I play the game I feel like I'm part of the game itself, you know. Instead of a character in the game, it feels more like I'm part of the game trying to be able to advance more of the story line. So when the person in the game shoots someone, I feel like I shoot someone. And when a player in the game gets shot, it just feels like I get shot and as the game progresses it just makes me feel more part of the game itself rather than being in this world (Joel, age 18).

Joel described both a transformative and transportive gaming experience in which he experienced himself as actually being in the game and the game temporarily became the world in which he resided. The boundaries between the real world and the game world dissolved and, while he was physically sitting in front of the screen, he was experientially coping with the world of *Halo*. Living in these multiple worlds, both real and virtual, and

the ability to move in and out was something that gaming participants took for granted.

This sense of "thereness" was something that nearly every participant described. While players were always already present in the real world, the thereness of the game had the ability to move players so that they inhabited both spaces at once, and were both here and there. When deep into a game, players described a sensation in which the real world was muted and took considerable effort to return into. The game was not just pixels on a screen for players, but a universe with its own rules, ways of being, and challenges extended and accepted. Players went into game worlds and returned with narratives that described their experiences and the ways that games meshed with their lives.

Gaming as vehicle to practice, extend and hone identity, with lessons learned flowing into real life

By having a virtual life in games, participants practiced identities, learned and developed new social skills and took risks, such as experimenting with gender norms. Because of the ability to create a virtual self to match imagination, and not necessarily bodily reality (either their own, or the one imagined by the game designers), gaming served as a "practice world" for participants to develop skills, identities, attitudes and characteristics that could be transferred to real life.

Historically, identity locus has been with the physical person, but in video games, participants develop parts of their identity by manipulating and changing their virtual selves unrestrained by physicality. Participants identified differences and similarities between their actual selves and their game characters, often noting that their characters had a superior personality, greater skills or a better body. Participants moved in and out of these various aspirational personas with fluidity, their characters blending into and informing their actual lives, experiencing the ability to shift identity as liberating and identity extending. Character creation, development and refinement appeared to be part of a highly personal experience. When describing their character's activities, participants often spoke in the first person, indicating the intense personal involvement and identification they had with their characters. John, a 13-year-old boy attending Catholic school, described his character in the game *Star Wars, The Old Republic:*

Well, I kind of look like a demon. Not like Darth Maul, because he's a Zabrak, but I'm a Sith pure blood. I have this red face, with chin spikes. And then I have some jewelry. I have a master named Darth Varis, and I am training to become a Sith. And you're in the Sith Academy and then you have this rival dude and you're both competing to be Darth Varis's apprentice. So then, eventually, he comes after you and you have to kill him, because you're a Sith and that's the kind of things you do.

John inhabited his Sith character, doing things that he knew Siths did, like killing rivals and training as an apprentice. He was careful to draw distinctions between his character and others, pointing out his differences and what made him unique. John spoke easily and confidently about being a Sith, clearly having spent many hours engaged in learning to be his character so that his Sith identity was ready-to-hand and he could shrug on that identity easily upon game entry.

Sam, age 18, discussed why he always picked silver for the color of his light saber when playing *Star Wars* games: "I still like to picture myself in games as a really good guy. I might not be like that in real life, but it's nice to be able to be that good in games." Sam's *Star Wars* character represented something better than he perceived himself to be, his aspirational identity. Likewise, Brian also carefully designed his character for the game *Fallout*, building up intelligence and strength points. Brian's characters were idealized versions of himself through which he visualized and set goals:

Then I got to the point where I started to think 'I'm like a character.' I started going to the gym more so I could be strong like my character. I started to study and read and all this more and tinker with stuff so I could be smart like them (Brian, age 20).

Rather than Brian's "real" self shaping the game self, here Brian described eventually striving in real life to become more like the person he found himself able to be in the game: strong, well-educated, smart. Meaning and motivation flowed between actual and virtual worlds, both informing and influencing each other. Creating avatars thus allowed participants to practice certain ways of being without having to claim these identities as immediately their own. They could practice making ethical decisions that would be either acceptable or unacceptable in the real world, use judgment, practice being a hero or antihero and experience how these roles might feel, all in relative safety, since they were only "playing a game."

The game environment was a place to try out leadership, assertiveness and other social skills. Lisa, age 21, leader of a 40-person guild within the massively multiplayer online game (MMOG) *Mabinogi*, described what she perceived as the difference between her online avatar and her actual self:

Definitely my character I think looks better than I do in real life. [Laughter] Well, no, it's kind of like I'm a different person, like I'm more confident [online] and stuff. Like people can look up to me more. Like I'm more of a leader than a follower. I'm more of someone that would do things and not just say I'm going to.

Lisa's discussion of her avatar, like Brian's discussion above, appeared to promote comparative reflection on the distinctions between the presented self of the game and that of "real life." By trying out leadership skills in a one-off environment, she could experiment, winnow and hone skills that she might use later in real life. One male participant, who stated he was extremely shy in high school and had no close friends, described his avatar's more aggressive personality:

I'd say I'm [as his avatar] more outspoken, and more sarcastic. And I'd say I'm also a bit more chauvinistic. But mostly jokingly. Basically, I'm a bit more rude, I guess. Yeah, slightly more. Compared to me, I am more silent and more polite, (Victor, age 20).

The game again opened an aspirational space where the person-as-avatar could take risks and be more aggressive in social interaction. The avatar's world was one in which such jokes and "rudeness" were apparently tolerated if not encouraged. By contrast, Victor's real-life world was experienced as silencing, requiring a politeness that precluded the "rude" jokes that his avatar liked. Victor went on to discuss how he used the social interaction skills he practiced during game play to make friends and expressed pleasure about his expanding real life social circle.

Gender Identity

Participants also experimented with gender and age. Assuming a different gender identity in actual life is often fraught with danger and stigma, but because of the ability to

create a persona separate from one's real-life self in gaming, it is a much more available option in the virtual world. Maria, a 15-year old girl, expressed shock the first time she played *Grand Theft Auto* at the portrayal of women in the game, saying "there's a lot of girls half-naked." However, rather than question the game, she said that she figured that the game "must be for adults or for guys, you know?" Another female participant explained why she chose to play as a male:

In my case, I decided after I was 14, that being a girl online was really boring. Either people looked down on you, or other people would react differently. You know, most of the people online that are playing these kind of games are guys. So when they know that there's a girl online, suddenly you get all this special attention, and I didn't like that. So I think starting from when I was around 14, I made a male persona on those games, and then I would introduce myself as a boy. I would pretend I was 16. And it was really interesting, because I found that people online, when they think you're a guy, there seems to be more comradeship, camaraderie. They would treat you like a fellow brother, a player, like that, instead of, you know, a girl that you wanna date (Ellen, age 21).

In games, Ellen perceived that there were multiple ways of being a boy: a fellow brother, a player, a comrade. Females, however, were defined by the single relationship they could have with males: a dateable girl. Interested in playing the game on an equal footing, Ellen chose to play as the gender that was not othered, permitting her more freedom and flexibility. Playing the game as a male character allowed Ellen to engage in "normal" game play, rather than the niche play to which she perceived female characters were limited. Changing virtual gender created new social spaces where real-world girls could enjoy play but be insulated from socially uncomfortable or risky situations, and allowed them to experience respect as a peer with males. Male participants, on the other hand, generally played as males. When asked if he had ever had a female avatar, Adam, age 18, responded,

Not a single one, 'cause in every game I like to connect with my character. I like to feel like I am them. That's why in games where I get to choose my gender, I never choose a girl 'cause I don't feel like I'm them. It just feels weird to not be me in the game.

Samuel, age 18, confided that if he chose a female avatar, he was concerned that she would scream when she died, and ruin "the whole first-person immersion thing." Both Samuel and Adam felt that selecting a female character would be a barrier to full involvement with the game because a female would do stereotypically female things like scream or behave in a weaker fashion, even if they controlled the character, suggesting that within the taken-for-granted game world, to be female was to be lesser-than.

Only one male participant disclosed that he had played as a female character. Brian, age 20, in the game *Street Fighter*, said he had selected that character because she was nimble and matched his style of play. He went on to say that when he played against his co-workers and beat them they were surprised by his avatar choice and told him, "Wow, okay. I didn't know she could do that." In this case, choosing a female allowed Brian to display his specialized knowledge of the game to his co-workers, and his choice was unusual enough to elicit surprise from other players. However, in this game world at least, designers apparently provided a less stereotypical option for female characters, one whose qualities provided advantages rather than creating barriers. While females often used games for gender experimentation and to alter the social tensions of inequalities, male participants mostly preferred more stereotypically masculine avatars. Being a male version of themselves helped them engage in the play experience and maintain fidelity, whereas female participants often felt the need to change gender to decrease their visibility among the male players, become "one of the guys" and "get more respect" (Maria, age 15). Participants' comments and gameplay largely reflected commonly held mainstream gender norms, demonstrating the fluidity in which hegemonic societal norms can move through video games, each reinforcing the other.

The enmeshment of virtual and real life

To characterize game worlds as purely practice worlds, however, would not be adequate. Though these worlds served as practice arenas for adolescent development, they also functioned as a certain kind of reality. Participants clearly did not physically go into the game-created worlds, but their avatars did. Characterizing these purely as artificial or fictional practice worlds obscures the vibrancy that adolescents reported experiencing while playing in them. One participant described playing *Duke Nukem* with her younger brother, and afterwards, acting out the shooting scenes:

I remember I played Duke Nukem with my youngest brother...Right after, we got little Nerf guns with no bullets in it, and we pretended to go around and shoot monsters we were seeing in the house. So we would run around. He came and he pointed the gun, and he went, "Bang," and I went, "Why'd you shoot me?" He said, "I saw a monster." And I thought it was a hilarious thing because it looked like he was shooting me (Laurie, age 20). This type of play seems to mirror old cops-and-robbers types of play, but with the added elements of the immersive environment of a realistic, violent video game. Laurie and her younger brother transferred and modeled behavior from the video game into the real world, engaging in real world play that mimicked the game. Another participant, after having played *Grand Theft Auto*, described how she perceived real world motorcycles differently after watching them used in the game in a theatrical and provocative manner:

When we get outside and then you could just envision yourself like you would see a motorcycle pass by and I'd be like, "Look a motorcycle, a motorcycle." And I'd be "Oh man, I could do so much stuff with a motorcycle", not realizing that you'd have all these limitations. So you'd really be stuck in the real world, just wishing you could do all this stuff. And my friend won't let me drive his car and then you'd be like, "Man, I wish I could have like a motorcycle" or you just pull up and be like boom, boom, boom [made shooting gestures with her fingers]. Just like in the game 'cause it was fun (Anna, age 18).

Anna could ride motorcycles in the game, making them maneuver in ways not possible in real life, but doing so created desires for possibilities not previously considered, and frustration with the constraints that real life imposed. For participants, the stories, imagery and activity in the games affected how they subsequently perceived the actual world, which seemed dull by comparison, missing the excitement of enacting risky behavior such as motorcycle weaving or random aggression.

Other participants talked about how playing games actively shaped their personalities, identity development and desires. Several found it difficult to make friends in the real world and noted how gaming assisted with their social skill development.

MMOG, representing 12.5% of the games discussed by participants, provided particularly seductive virtual worlds in which to practice. In these worlds, participants craft avatars to represent their ideal selves, and create community via play in a world limited only by the parameters of the game and the imagination of the players. The vivid experiences of these virtual worlds contrasted with the limitations of teen life:

Definitely online you have more – any sort of emotion is – it feels more real. But online, you have a bit more freedom. There's more activities you can do. I mean, back in middle school, I couldn't drive. We couldn't – we didn't have money to go anywhere. We couldn't watch any movies or anything like that. So getting together in real life, even though it was thrilling, it was also kind of boring. Online, it gives you a lot more chances to, you know, have something to do, and then maybe later on when you get back together in real life, we actually have something to talk about (Ellen, age 21).

Ellen's rapid-fire changes in tenses reflect the ease with which she moves between virtual and 'real' worlds. Gaming was experienced as allowing participants to fill gaps in their real-world lives—lack of money or other resources, limited autonomy, even lack of new topics to discuss with friends. For real life to be interesting, money, mobility, and entertainment were required, assets not readily available to Ellen, except in the game. In the game, however, these were all at her disposal, making Ellen wish real life could imitate her game world.

Participants also discussed how their virtual gaming communities were highly significant to them. Lisa, describing her role as guild leader, commented,

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Well, [I] make sure I'm active and interact with my guild-mates. Make sure that, you know, I'm there when they need me, like 'cause they need help sometimes doing quests and getting stuff, like items. So I help them with that, make sure I help (Lisa, age 21).

Having played various MMOGs since her middle teens, Lisa described a time in her life where the gaming community was more important to her then her real-life friends, stating,

Well, it was during a time when I felt like my friends couldn't really understand how I felt. And then when I talk to my friends online it's like, 'cause they couldn't – they said they went through the same thing basically, so they said that they could relate. And it felt like, "Oh, okay, so I can relate to them more than my real life (friends)'cause they understand." (Lisa, age 21).

In the game world Lisa mattered, was needed and was understood. It was a sanctuary, a place of friends who helped her through adolescence, and gave her the opportunity to become a leader. Gaming, and all that it entailed, was a formative part of Lisa's identity development, shaping the way she related to the real world.

This aspect was further exemplified by the relationships that participants formed while gaming in virtual worlds. While none of the partners shared physical space, game relationships involved genuine emotions and commitments. For example, Lisa described her online husband, whom she had known virtually for the past seven years and communicated with up to five hours a day: "Yeah, I've married a few guys [in games]. But there's only one of them I've been really close to... I would say he would be a candidate for real life if we could meet." Victor, age 20, described his virtual wedding and subsequent breakup with a woman who lived in another country:

And yeah, and my friends that we knew at that time all showed up [to the virtual wedding] and were like, "Congratulations." Pretty much like an actual real one. And but that lasted for about over a year until I guess she needed - she didn't want to play anymore, I guess, and she had other real life things going on for her, so she decided to leave the game. I was really pretty crushed because I guess that relationship was kind of pretty close to me, and I really enjoyed that time with her, and I was pretty hurt when she decided to leave for good. Like she even stopped blogging online, and I couldn't communicate with her anymore.

The intimacy formed through the virtual marriage was clearly real -and its loss devastating- even though the wedding occurred in-game and the two never actually met in real life, revealing the way these gaming worlds create new forms of closeness that participants like Victor yearned to extend and continue even when play ended. The emotions engaged were genuine.

Gaming as liberation: freedom, empowerment, control, feeling good, relaxation and stress relief

The variety of games played by participants provided various levels of bounded agency, depending on the game. Most games rewarded increasing skill and time spent, allowing participant avatars to become more powerful and better able to move through the game's challenges. Open world games, such as GTA, allowed participants to freely roam the created world, with Anna describing it as a place "that has no limits." Other, more linear games, such as the *Metal Gear Solid* series, provided a storyline for the participant to work through, making choices along the way, and depending on the choices, leading to several possible endings.

Participants discussed this sense of freedom, empowerment and control that game playing gave them. They were clear in differentiating between the real and game worlds, with the game world a place where "no one controls you" (Maria, age 15), you "can do anything that you want" (Tom, age 19), "you can control people" (Mark, age 16), and "there's a story to it, but you have your freedom" (Laurie, age 20), whereas in the real world there were constraints and rules to follow. Samuel, age 18, talked about how he enjoyed the agency gaming afforded:

Like if you're playing a game like *Heavy Rain*, you do all sorts of things that you may not have want – it's – you really feel like you're controlling these peoples' lives and sometimes you feel like you are them, and sometimes you feel like you're playing God with them. Having that kind of power over someone is kind of interesting.

Here Samuel seems to struggle with articulating the feeling of radical freedom that this game affords, allowing him to do things he might not really want to do in real life. Few other spaces in adolescents' lives allow them such control over others. Samuel perceived that in the game, he could make characters bend to his will, a responsibility that felt godlike. For Samuel, for whom high school had been a struggle and peer relations difficult, to have such power was likely exhilarating and perhaps also anxiety producing.

Participants repeatedly spoke of how the game world allowed them to do things that they could not do in real life. Asked to describe a usual day, participants reported that they would get up, go to school, do homework, eat, engage with friends, parents and others and then go to bed, with it all to be repeated the next day. Their real worlds were bounded by schedules, grades, parents and peers, their agency constrained by expectations and rules. Yet, when they entered the game world, these restrictions were lifted and their roles shifted. They became people of importance engaged in "big events that are exciting" (Adam, age 18). One 8th grader, asked about what it felt like to play a role-playing game, said:

Well, in the avatar world, I have less restrictions as to what I would do. And I usually find myself playing the friendly hit-man game, player style. Inside of like the Elvish Scrolls games, because those, I would say, they feel very real to me... I don't do very many exciting things in the real world, but the avatar world is supposed to be exciting, because it lets you do things that you normally couldn't or wouldn't do... So you're always trying to stop something that's really big happening and you're being a very important person (John, age 13).

Games provided a way for John to feel significant and necessary, thus building his selfconfidence. By developing skills at being "a friendly hit man" John gained feelings of competency, mastery and control not normally accessible to a 13-year-old boy.

In a ready-to-hand gaming state, participants reported feelings of relaxation and stress relief and sought further game play to continue those feelings. Game play brought a sense of relaxation and calm coupled with feelings of competence and mastery. Joel said:

Oh, I've played this game called Halo... and when I play that game it takes out the aggression in me. It just takes out the stresses of schoolwork and stresses of family and stuff... Well, yeah. It gives you more confidence. It makes me feel like more than I am. It makes me feel more important. It makes me feel more relaxed than real life.

By creating feelings of empowerment, competence and control, video games created a space where adolescents were able let go of their worries and fully engage with the game. For Joel, these feelings contrasted with how he felt in his real life, where he did not always feel competent and confident in his dealings with the real world. The space created by video games took Joel to a place where he felt he could be his best self. Adam, age 18, echoed this idea of the game world as a refuge from real life:

It's really just 'cause in my game life, I don't have to think about everything else.

I only have to think about what's in the game. I can just forget everything else for the moment and then just live in the world that I'm playing, basically.

Adam identified the video game space as a place where he could live and have a game life. When he played video games, he reconstituted himself in that world and *was there* mentally and emotionally, even though he bodily remained in the real world.

Part of that well-being was a feeling of accomplishment and self-valorization. Being able to escape from real-world insecurities and complete a game, beat a level, best the foe, provided adolescents with a sense of achievement. This strong driver was often cited as one of the things that participants most enjoyed about game playing. One participant described what he felt as a young boy just learning to game:

It took me over a month of trying over and over. But then when I finally got it, I was like, "Yes, I can't believe I got that far. Look at me." Apparently, those kind of games are actually really hard, and being able to be someone who can actually

beat a hard game made me feel like, "I guess I'm really good at this." I found something that I'm good at (Victor, age 20).

However, a few participants discussed how this sense of accomplishment did not always translate well into their real lives. Joel, after describing how accomplished he felt when he completed a mission, wryly stated, "except it is not true, I am not in their shoes, I'm just a kid playing a video game." But then he qualified the statement again, saying, "But it makes me proud of myself. Oh, I accomplished something." Ellen, after describing how she had spent thousands of hours during her high school years developing her virtual skills in various MMOGs, said:

So I mean, even if we learned how to do alchemy online, there's nothing you can do about it in real life. Or if you killed the greatest monster in the game, well, so what? I mean, you might be able to tell your friends in real life about it, you know, you might have an hour or two of discussion about how you did it, or you know, how cool it was. But afterwards, everybody just resumes, you know, we're here, we're eating, we're doing homework.

The resumption of the mundane everyday world of adolescence meant losing the sense of being in a heroic narrative. While in the game world, adolescents were experiencing ready-to-hand competence and fluidity, feelings of power and freedom, and identities crafted to be ideal, making the return to the real world that much more jarring.

Gaming as aggression release: the experience of violence.

In video games, many of the players' interactions require violence to progress in the game. Because of the valorization of weapons and their connection to game success, one of the activities that many participants found particularly relaxing and fun was virtually shooting people, aliens and other identified enemies. Patrick, age 13, describing what he liked about playing the sniper character in the M-rated game *Team Fortress 2*, stated: "If someone is in one spot for about five seconds, I can kill them...It's fun. You can't do it in real life, so you might as well in the game."

Participants reported that when they felt stressed, they could enter the game world, kill game characters and feel a release of tension. Because killing was often one of the goals of the game, doing so well created feelings of agency and success. Tom, age 18, described feeling of virtually killing as "cathartic," but was careful to distinguish between the release of aggression in the game and a similar action in the real world:

Especially if you've had a hard day, someone's giving you a lot of grief. You're pissed off so you go shoot virtual people in the face for a while and you feel better instead of actually going and shooting real people in the face. That's not fun at all. Joel, playing with a group of eight online friends unknown to him in real life, found that spending time shooting each other allowed the group to talk about individual concerns. This group, connected by their ability to virtually kill one another, had provided emotional support to Joel when his dog died by allowing Joel to shoot them without fighting back. Joel said, "I just felt bonded by their presence in a way." The primacy of virtually killing each other linked the players together and became another way to communicate feelings and demonstrate sympathy in a situation of loss.

Some participants expressed ambivalence about the amount of killing in most games. Brian, age 20, mentioned that when he first started playing the *Call of Duty* game, "it's kinda like distressing 'cause it's just like you go around and shoot people, you

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throw stuff, explosions, all that stuff." However, he soon became "engaged" with the game and no longer felt uneasiness. He expressed pride in his skills:

It gets to a point where you kinda get really competitive. You wanna keep your kill/death ratio at a good – I mean you want to be higher than your GPA [grade point average], pretty much was the joke at the time. Like, "Oh, my KD [kill/death ratio] was better than my GPA." It was real funny.

Laurie, after stating that she was not into games with violence, went on to describe a game in which the player rode around in a car and tried to kill other characters: "I loved this game so much." In fact, 10 of the 17 games that Laurie enjoyed playing involved killing or seriously hurting opponents, making it clear that even if Laurie did not like violence, it still was part of her gaming world. Perhaps this was because the most popular video games have violence as the core mechanism of game play, leaving limited opportunity for other types of interaction.

Discussion

The worlds of video gaming constitute complex social arenas in which adolescents gather to play, make meaning and socialize. Such play is an important part of adolescent life, creating situations where they practice skills, test out ideas and create, develop and manipulate identity in an environment of relative safety. The boundaries between the virtual and the real are fluid and often collapse as adolescents move easily between them. Many adolescent participants, when they enter the game world, experience themselves as truly within the game. When they move out of the game, they exit as they would from real geographic space, taking with them memories, emotions, and the sense of having been somewhere. Multiple studies have indicated that players respond to images in video games in terms of dopamine release, as if they were experiencing the situation in real life. ³⁷⁻⁴⁰ Moreover, adolescent participants often indicate that their actual world seems impoverished compared to the opportunities and excitement available to them in the virtual worlds.

Adolescents experience game worlds uncritically, as places where they go to feel good about themselves, feel powerful, demonstrate mastery, cope with stress and to know that they matter. They do great things, save worlds, are strong and powerful, make difficult decisions, and usually are extremely good looking. Adolescents also experience games as boundary transcending. They transcend gender, ethics, bodies, personality and the mundaneness of everyday life. For example, in a study of 119 online game players, 57% had engaged in gender swapping.⁴¹

While players inhabit game worlds, it is false to consider these worlds as separate from the real world. All games are always already grounded in the real world, created by humans, using available technology, skills and imagination. Games reflect, amplify, challenge, distort, extend, and/or reify what already exists in real life. Possibilities for game worlds are rooted in the imaginations of designers and limits are created by the technology available and the design possibilities not considered and/or invisible. So, while game worlds may seem to have offered a radically free experience for the adolescent players, this is illusory. Virtual experiences are engineered so that players are challenged, possibly frustrated, but given enough success to keep them engaged and coming back. Yet ultimately, although these game worlds are created from, reflect, and interact with the actual world, they provide only the illusion of radical agency. Limits exist, but the adolescent participants are usually unable to see them. The world created by the designers is the received view, almost a view from nowhere, accepted as the reality for that game.

Because many game players accept the dimensions of the created world as real while playing, game companies are uniquely positioned to inculcate game-normative values among players. Video games present a "supernormal" world where everything seems enhanced and larger than life. Studies have indicated that both animals and people, when given the choice, prefer supernormal stimuli to actual stimuli. ⁴² For the game players, the real world pales in comparison. Fleming, Lee and Dworkin, in their work on masculinities, consider how media encourage consumers to buy into these aspirational identities, but most people find it difficult to measure up in real life, thus opening possibilities for marketing and behavior changes among consumers in efforts to become more like these media-driven created identities.⁴³ Players inhabit their characters, but often feel that their character is better than they are in real life. Players learn from, manipulate and strive to be like their game characters. In this way, video games reinforce or modify existing stereotypes, but also give players the opportunity to try on new roles and identities.

The influence of gaming on adolescent development is arguably profound. Since part of adolescent development is identity development and risk-taking, it is important to consider how these processes are affected when they take place in virtual worlds. This study suggests that a portion of adolescent identity work is happening via gaming and is happening largely in environments that use extreme violence as a main problem solving method, glorify life-threatening risk taking and circumscribe stereotypical gender roles for women and men. To the extent that players wish they could in real life surmount such risks, and experience such supernormal events in their real lives, games give adolescents a nudge toward unsafe behaviors.⁴⁴ At the very least, living parts of each day in virtual worlds makes adolescents' everyday worlds seem humdrum, rather than full of possibility. The acceptance of stereotypic gender roles in many games could lead adolescents to restrict their imagination of what they can become, how they can relate to themselves as gendered, and how they relate to the other gender.

Yet at the same time, games provide adolescents places to try new identities and ways of being, practice social skills and extend and expand their thinking. Adolescents frequently play games at home with adults nearby, providing a sense of legitimacy to the activity. In a 2008 study, 90% of parents stated that they sometimes or always knew what games their children were playing, but 62% of the parents expressed that they thought that video games had no influence on their children, either positively or negatively. ⁴⁵ One player remarked, "Videogames expand your horizons. You'll see things you won't see in real life. I think that'll make you more creative. You can imagine new frontiers" (Ryan, age 20).

Limitations

This study has limitations. As an exploratory study using a small sample of gamers and designers, findings from this study are not generalizable. We worked to achieve qualitative rigor by grounding our findings in the fittingness, auditability, credibility, trustworthiness and saturation of the data and subsequent analysis. ⁴⁶⁻⁴⁸ Specifically, we kept meticulous records, placed the research in context, shared data and preliminary findings with other researchers, wrote thick descriptions of the data, while iteratively revisiting the original interview data to ensure that emerging conclusions fit

with the whole, and continued to interview until thematic saturation was achieved and no new themes emerged in interviews. However, it is still possible that other researchers, studying a different sample of gamers, might identify other additional themes not captured by our analysis.

Conclusion

Video games have become an increasingly important part of adolescent lives. Adolescents are keen observers of their environment and they often emulate that which they admire. Deeper understanding and further research is needed about how adolescents who play electronic games experience the medium, and how these experiences may impact their physical and mental health outside the game environment. Nurse philosopher and theorist Sally Gadow argues that when perceptions of a person's lived body (the mundane, taken-for-granted experience of one's body) and the object body (the existential otherness of self when one reflects on one's self) are incongruous, tensions are set up between the two. ⁴⁹While Gadow focuses on the embodied experience of aging and illness, the idea that a person can hold several experiences of self in tension can be extended to include a gamer's experience of both the actual self, the self experiencing the real world, and the virtual self, the self experiencing the game world, thus creating a dialectic of being as participants interpret their identities in different worlds. By understanding that these processes may be in play, nurses will be better able to assist adolescents as they undertake the complex task of adult identity development.

References

- Hassandra M, Vlachopoulos SP, Kosmidou E, Hatzigeorgiadis A, Goudas M, Theodorakis Y. Predicting students' intention to smoke by theory of planned behaviour variables and parental influences across school grade levels. *Psychol Health*. 2011;26(9):1241-1258. doi: 10.1080/08870446.2011.605137.
- Gardner B, de Bruijn GJ, Lally P. Habit, identity, and repetitive action: a prospective study of binge-drinking in UK students. *Br J Health Psychol*. 2012;17(3):565-581. doi: 10.1111/j.2044-8287.2011.02056.x.
- Rise J, Sheeran P, Hukkelberg S. The role of self-identity in the theory of planned behavior: a meta-analysis. *J Appl Soc Psychol*. 2010;40(5):1085-1105.
 doi: <u>http://dx.doi.org.ucsf.idm.oclc.org/10.1111/j.1559-1816.2010.00611.x</u>.
- 4. Bronfenbrenner U. Toward an experimental ecology of human development. *Am Psychol*. 1977;34(10):513-532. doi:

http://dx.doi.org.ucsf.idm.oclc.org/10.1037/0003-066X.32.7.513

- Bronfenbrenner U. Contexts of child rearing: Problems and prospects. *Am Psychol*. 1979;34(10):844-850. doi: <u>http://dx.doi.org/10.1037/0003-066X.34.10.844</u>
- Bronfenbrenner U. Ecology of the family as a context for human development: research perspectives. *Dev Psychol*. 1986;22(6):723-742. doi: http://dx.doi.org.ucsf.idm.oclc.org/10.1037/0012-1649.22.6.723.
- Lenhart A, Duggan M, Perrin A, Stepler R, Rainie L, Parker K. Teens, social media & technology overview. *Pew Research Center*. April, 2015.

- Anderson CA, Shibuya A, Ihori N, et al. Violent video game effects on aggression, empathy, and prosocial behavior in eastern and western countries: a meta-analytic review. *Psychol Bull*. 2010;136(2):151-173. doi: 10.1037/a0018251.
- Beck VS, Boys S, Rose C, Beck E. Violence against women in video games: a prequel or sequel to rape myth acceptance? *J Interpers Violence*. 2012;27(15):3016-3031. doi: <u>10.1177/0886260512441078</u>.
- Rothmund T, Gollwitzer M, Klimmt C. Of virtual victims and victimized virtues: differential effects of experienced aggression in video games on social cooperation. *Pers Soc Psychol Bull*. 2011;37(1):107-119. doi: 10.1177/0146167210391103.
- Saleem M, Anderson CA, Gentile DA. Effects of prosocial, neutral, and violent video games on college students' affect. *Aggress Behav.* 2012;38(4):263-271. doi: 10.1002/ab.21427.
- 12. Erikson EH. *Identity: Youth and Crisis*. WW Norton & Company; 1968.
- Steinberg L, Morris AS. Adolescent development. *Annu Rev Psychol.*.
 2001;522(1):83-110. doi: <u>10.1146/annurev.psych.52.1.83</u>.
- Meeus W. The study of adolescent identity formation 2000–2010: a review of longitudinal research. *J Res Adolesc*. 2011;21(1):75-94.
 doi: http://dx.doi.org.ucsf.idm.oclc.org/10.1111/j.1532-7795.2010.00716.x.
- 15. Kroger J, Martinussen M, Marcia JE. Identity status change during adolescence and young adulthood: A meta-analysis. *J Adolesc*. 2010;33(5):683-698. doi: 10.1016/j.adolescence.2009.11.002.

- Arnett JJ. Emerging adulthood: a theory of development from the late teens through the twenties. *Am Psychol*. 2000;55(5):469-480. doi: http://dx.doi.org.ucsf.idm.oclc.org/10.1037/0003-066X.55.5.469.
- Konrad K, Firk C, Uhlhaas PJ. Brain Development During Adolescence. Dtsch
 Aztebl Int. 2013;110(25):425-431 427p. doi: 10.3238/arztebl.2013.0425.
- Rideout V. The common sense census: Media use by tweens and teens. *Common Sense Media*. San Francisco, 2015.
- Hanewinkel R, Isensee B, Sargent JD, Morgenstern M. Cigarette advertising and teen smoking initiation. *Pediatrics*. 2011;127(2):e271-e278. doi: 10.1542/peds.2010-2934.
- Song AV, Ling PM, Neilands TB, Glantz SA. Smoking in movies and increased smoking among young adults. *Am J Prev Med*. 2007;33(5):396-403. doi: 10.1016/j.amepre.2007.07.026.
- 21. Glantz SA, Iaccopucci A, Titus K, Polansky JR. Smoking in top-grossing US movies, 2011. *Prev Chron Dis.* 2012;9:120170. doi: 10.5888/pcd9.120170.
- Dalton MA, Beach ML, Adachi-Mejia AM, et al. Early exposure to movie smoking predicts established smoking by older teens and young adults. *Pediatrics*. 2009;123(4):e551-e558. doi: 10.1542/peds.2008-2102.
- Primack BA, Longacre MR, Beach ML, Adachi-Mejia AM, Titus LJ, Dalton MA. Association of established smoking among adolescents with timing of exposure to smoking depicted in movies. *J Nat Cancer Inst.* 2012;104(7):549-555. doi: 10.1093/jnci/djs138.

- Anderson P, de Bruijn A, Angus K, Gordon R, Hastings G. Impact of alcohol advertising and media exposure on adolescent alcohol use: a systematic review of longitudinal studies. *Alcohol and Alcohol*. 2009;44(3):229-243. doi: 10.1093/alcalc/agn115.
- Willoughby T, Adachi PJ, Good M. A longitudinal study of the association between violent video game play and aggression among adolescents. *Dev Psychol.* 2012;48(4):1044-1057. doi: 10.1037/a0026046.
- Adachi PJ, Willoughby T. The longitudinal association between competitive video game play and aggression among adolescents and young adults. *Child Dev.* 2016;87(6):1877-1892. doi: 10.1111/cdev.12556.
- 27. Gabbiadini A, Andrighetto L, Volpato C. Brief report: Does exposure to violent video games increase moral disengagement among adolescents? *J Adolesc*.
 2012;35(5):1403-1406. doi: 10.1016/j.adolescence.2012.06.001.
- Greitemeyer T, Mügge DO. Video games do affect social outcomes: a metaanalytic review of the effects of violent and prosocial video game play. *Pers Soc Psychol Bull*. 2014;40(5):578-589. doi: 10.1177/0146167213520459.
- 29. Sublette VA, Mullan B. Consequences of play: A systematic review of the effects of online gaming. *Int J Ment Health Addict*. 2012;10(1):3-23. doi: http://dx.doi.org.ucsf.idm.oclc.org/10.1007/s11469-010-9304-3.
- Prot S, McDonald KA, Anderson CA, Gentile DA. Video Games:: Good, Bad, or
 Other? *Pediatr Clin N Am*. 2012;59(3):647-658. doi: 10.1016/j.pcl.2012.03.016.
- 31. Donovan T, Garriott R. *Replay: The history of video games*. Yellow Ant Lewes, UK; 2010.

- 32. Dreyfus HL. *Being-in-the-world: a commentary on Heidegger's Being and Time, division 1.* Cambridge: The MIT press; 1991.
- Heidegger M. *Being and time*. Trans. John Macquarrie and Edward Robinson. New York: Harper Perennial; 1962/1927.
- 34. Benner P. The Tradition and Skill of Interpretive Phenomenology in Studying Health. In: Benner P, ed. *Interpretive phenomenology: embodiment, caring, and ethics in health and illness*. Thousand Oaks: Sage; 1994.
- 35. *NVivo qualitative data analysis software*, [computer program]. Version Version
 10: QSR International Pty Ltd; 2014.
- Smith JA, Flowers P, Larkin M. *Interpretative phenomenological analysis: Theory, method and research*. Los Angeles: Sage; 2009.
- 37. Kätsyri J, Hari R, Ravaja N, Nummenmaa L. Just watching the game ain't enough: striatal fMRI reward responses to successes and failures in a video game during active and vicarious playing. *Front Hum Neurosci*. 2013;7:278. doi: 10.3389/fnhum.2013.00278.
- 38. Kühn S, Romanowski A, Schilling C, et al. The neural basis of video gaming.
 Trans Psychiatry. 2011;1(11):e53. doi: 10.1038/tp.2011.53.
- Padmanabhan A, Geier CF, Ordaz SJ, Teslovich T, Luna B. Developmental changes in brain function underlying the influence of reward processing on inhibitory control. *Dev Cog Neurosci*. 2011;1(4):517-529. doi: 10.1016/j.dcn.2011.06.004..

- 40. Elliott L, Golub A, Ream G, Dunlap E. Video game genre as a predictor of problem use. *Cyberpsychol Behav Soc Netw.* 2012;15(3):155-161. . doi: 10.1089/cyber.2011.0387.
- 41. Hussain Z, Griffiths MD. Gender swapping and socializing in cyberspace: an exploratory study. *CyberPsychol & Behav.* 2008;11(1):47-53. doi: 10.1089/cpb.2007.0020.
- 42. Barrett D. Supernormal stimuli: How primal urges overran their evolutionary purpose. New York: WW Norton & Company; 2010.
- 43. Fleming PJ, Lee JGL, Dworkin SL. "Real men don't": constructions of masculinity and inadvertent harm in public health interventions. *Am J Pub Health*. 2014;104(6):1029-1035. doi: 10.2105/AJPH.2013.301820.
- 44. Fischer J, Aydin N, Kastenmüller A, Frey D, Fischer P. The delinquent media effect: delinquency-reinforcing video games increase players attitudinal and behavioral inclination toward delinquent behavior. *Psychol Pop Media Cult*. 2012;1(3):201-205. doi: <u>http://dx.doi.org.ucsf.idm.oclc.org/10.1037/a0028114</u>.
- 45. Lenhart A, Kahne J, Middaugh E, Macgill AR, Evans C, Vitak J. Teens, Video Games, and Civics: Teens' Gaming Experiences Are Diverse and Include Significant Social Interaction and Civic Engagement. *Pew Internet & American Life Project*. 2008.
- 46. El Hussein MT, Jakubec SL, Osuji J. The FACTS: a mnemonic for the rapid assessment of rigor in qualitative research studies. *J Nurs Ed.* 2016;55(1):60. doi: 10.3928/01484834-20151214-15.

- 47. Denzin NK, Lincoln YS. The discipline and practice of qualitative research. In: Denzin NK, Lincoln YS, eds. *Handbook of Qualitative Research*. Vol 2. Thousand Oaks: Sage Publishing, Inc. ; 2000:1-28.
- 48. Rolfe G. Validity, trustworthiness and rigour: quality and the idea of qualitative research. *J Adv Nurs*. 2006;53(3):304-310. doi: <u>10.1111/j.1365-</u>
 <u>2648.2006.03727.x</u>.
- 49. Gadow S. Body and Self: A Dialectic. *J MedPhilos*. 1980;5(3):172-185. doi: https://doi-org.ucsf.idm.oclc.org/10.1093/jmp/5.3.172.

	Name*	Age	Gender	Race/Ethnicity	Hours per	Age that
					day spent	participant
					gaming	started gaming
1.	George	18	Male	Hispanic	4.5	4
2.	Ellen	21	Female	Asian	5	5.5
3.	Victor	20	Male	Hispanic	4	6
4.	Laurie	20	Female	Caucasian	4	2
5.	David	18	Male	Hispanic	4	8
6.	Lisa	21	Female	Asian	5	11
7.	Anna	18	Female	African American/	4	5
				Caucasian		
8.	Daniel	21	Male	African American	4	2
9.	John	13	Male	Caucasian	2	7
10.	Jack	15	Male	Caucasian	2	9
11.	Mark	16	Male	Hispanic	3	4
12.	Joel	18	Male	Asian	5	5
13.	Samuel	18	Male	Caucasian	5	11
14.	Adam	18	Male	Asian	6	2
15.	Maria	15	Female	Hispanic	3	12
16.	Brian	20	Male	Asian	4	8
17.	Tom	19	Male	Asian	2	8
18.	Ryan	20	Male	Caucasian	2	5
19.	Connor	13	Male	Caucasian	4	8
20.	Patrick	13	Male	Caucasian	3	7
	Totals	Average	Female-5	Asian- 7	Average	Average age: 6.5
		age: 17.7	Male-15	Hispanic- 4	hours: 3.8	(SD 2.9)
		(SD2.7)		Caucasian- 7	(SD 1.2)	
				AA-1		
				Multiracial-1		

 Table 1. Demographics of Individual Adolescent Study Participants

*All pseudonyms

Supplemental File A Games Played by Adolescent Players

	Game Name/ Year published	Participant s N=20	ESRB Rating	Perspective	Goals of game	Process of play
	Adventure Quest ⁵⁰ 2002	George	n/a	Single player RPG- questing and fighting	Collect experience points, gold, weapons and special items, leveling up.	Players defeat monsters with weapons- disappear when killed
2.	Assassins Creed II ⁵¹ 2009	Laurie	Mature	3 rd person open world, can switch to first person for certain actions	Move through story missions, set in 15th century Italy, playing as an assassin defeating Knight Templars, particularly Rodrigo Borgia (Pope Alexander VI)	Players defeating enemies by killing them with 15 th century implements- bloody, graphic.
3.	Banjo Kazooie ⁵² 1998	George	Everyone	3 rd person platformer	Play as the bear Banjo and bird Kazooie. The evil witch Guntilda kidnaps Banjo's sister Tooty to steal her beauty. Goal is to rescue Tooty and defeat Guntilda. Move through levels collecting musical notes, jigsaw pieces, defeating enemies.	Player defeats enemies in comic ways, rolling into them, whacking them with tools.
4.	Battle Arena Toshinden 3 ⁵³ 1996	George	Teen	3 rd person battle arena	A diabolical group known as "The Organization" is going to release an evil god into the world. The Toshinden fighters must fight to defeat them and save the world.	Players defeat enemies by fighting them in the arena using hand-to-hand combat and various weapons. Defeated character collapses on the ground. No blood.
5.	BattleField: Bad Company 2 ⁵⁴ 2010	Ellen	Mature	1 st person shooter	The Russians have stolen a weapon of mass destruction and it is up to Bad Company to retrieve it. Mission based.	Players shoot enemies with high-powered weaponry. Graphic and bloody.
6.	Bioshock ⁵⁵ 2007	Mark	Mature	1st person shooter with RPG elements	After a plane crashes in the ocean, the player descends to a decaying underwater 1940's dystopia. There the player gains superhuman powers by using gene- altering chemicals (plasmids). The player collects weapons and plasmids, using them to complete objectives, finally defeating the main antagonist, and returning to the surface. Moral choices made during game play impact the outcome of the game.	Players can kill enemies in with variety of weapons, and in many ways, including incineration, lightning strikes, electrocution, etc. Players have the option of killing mutated little girls. Graphic and bloody.
7.	Borderlands ⁵⁶ 2009	David John	Mature	1st person shooter with RPG elements playing FPS	The player plays as one of 4 mercenaries as they search the planet Pandora for the mysterious alien "vault," rumored to contained advanced technology and infinite wealth. The player completes quests to further the story, and//or earn cash and experience points.	Players defeat enemies by using will use a large array of weapons, from shotguns to rocket launchers. Deaths are bloody, with limb loss, decapitation, etc. The dying often scream.
8.	Bugs Bunny: Lost in time ⁵⁷	Maria	Everyone	3 rd person Platformer	Bugs is lost in time and must traverse five different eras (21 total levels) to defeat	Players defeat enemies by kicking them, pushing them, stomping on them or

	1999				enemies and collect clocks and golden carrots which will allow him to return to present day.	dropping things on them. When vanquished, the enemy often disappears in a puff of smoke.
9.	Call of Duty: Modern warfare 3 ⁵⁸ 2011 (Also played Call of Duty: modern warfare 1&2 and Black Ops)	George Anna Daniel Jack Joel Samuel Brian Tom Ryan	Mature	1 st person shooter	It is World War III, and Russians are attempting to invade the United States. Playing as various soldiers, the player completes story- driven missions, finally capturing and killing the main antagonist.	Players engage in realistic, first-person military combat using a variety of weapons. Enemies respond by screaming and writhing in pain, and blood gushes from wounds and staining the environment. Executions are shown.
10.	Captain Claw ⁵⁹ 1977	Ryan	Everyone	3 rd person Adventure Platformer	Captain Claw is a famous cat pirate recently defeated by a band of dog pirates. He escapes prison and goes in search of gems, which together will make the amulet of 9 lives, giving the wearer near immortality. The player proceeds through levels, collecting gems and fighting through enemies and obstacles.	Captain Claw fights with his sword, a pistol and fists. When he defeats an enemy, the character appears to fall off the side of the platform and disappears.
11.	Civilization V ⁶⁰ 2010	Tom	Everyone 10+	Turn based strategy game. Top down view	Each player represents the historical leader of a discrete civilization and must guide its development over 1000s of years. As the years go by, the player must scout for land, built more cities, decide on government engage with other civilizations. Victory can be achieved militarily, diplomatically, and by scientific achievement.	Historical military units fight from a bird's-eye view. Soldiers crumple and disappear when defeated. Can also ally with other civilizations, and use diplomacy, ideology, etc. to overcome obstacles.
12.	Clash of Clans ⁶¹ 2013	Connor Patrick	n/a	Top-down 3 rd person action/strategy	The player collects resources, builds an army, works cooperatively within clans to be able to attack other villages, NPC and clans to gain money and resources.	The player can attack NPC goblins and villages. When your troops are killed, they scream, turn briefly to ghosts, and then tombstones are shown. No blood.
13.	Counter- Strike: Global offensive ⁶² 2012	Brian Tom	Mature	1 st person shooter	The player joins either the terrorist or counter-terrorist team. The goal is to eliminate the other team and reach objectives. Players receive in-game money based on successful game play to buy weapons.	The player using a variety of realistic military-type weapons graphically and brutally can kill members of the other team. Very bloody. It is one of the few games that require to player to wait to respawn until the round is over.
14.	Dance Dance Revolution 2011 (Also played other DDR versions)	Ellen Lisa	Everyone	Dancing to per directions on the screen	Players move their feet corresponding to arrows scrolling on the screen to music. The player is given a score based on accuracy.	Players try to gain greater scores with increasing difficult dance steps.
15.	Dark Souls ⁶³ 2011	David	Mature	3 rd person/ action role playing	The player explores the demon infested land of the undead to retrieve their lost souls and lift a curse. In open-world exploration, the	The player violently and graphically kills and is killed. The player uses fists, axes, swords, bows, spears, knives, whips, etc.

					player collects items, kills enemies, gaining "souls" which act as currency and	to kill opponents. Bloody.
					experience points. Known as a very difficult game.	
16.	Dead or Alive 4 ⁶⁴ 2005	Laurie	Mature	3 rd person Battle arena	Players select a character and then are pitted against either the computer or other players to fight. Each playable character has different moves and skill sets.	The player engages in fast paced hand-to-hand combat. When characters are defeated, they remain on the ground. No blood. Grunting and screaming is heard during the fight.
17.	Dead Island ^{65 66} 2011	David	Mature	1 st person action RPG Survival horror	Players are on open-world island where most of the inhabitants have contracted a virus and turned into zombies. The player's goal is to survive, find weapons, complete quests, engage in combat and gain experience points.	The player can kill zombies is many ways, from hand- to-hand combat to running them down in a vehicle. Bloody and graphic, body parts are often laying around.
18.	Defense of the Ancients ⁶⁷	Jack	n/a	Top down Online battle arena	This game is a mod of Warcraft III: Reign of chaos. The game pits two teams of players against each other. In the center of each team's base is a building called "the Ancient." The goals are to gain skills, level up, collect gold, kill the opponents and destroy the other team's building.	The player kills other player's avatars and NPCs. They disappear in a puff of red and black smoke.
19.	Destiny ⁶⁸ 2014	Connor Patrick	Teen	1st person shooter Mythic science fiction	Set in the distant future, earth is threatened by a malevolent evil known as the Darkness. Players take on the role of warriors with special talents who set out to explore the wastelands of Earth, the Moon and other planets to defeat the evil.	Players use lethal violence to defeat the enemy. There are a variety of weapons, ranging from clubs to futuristic guns and military weapons. Enemies cry out in pain, lay on the ground or disintegrate. White or black blood is occasionally seen.
20.	Devil May Cry 4 ^{69,70} 2008	Ellen	Mature	3 rd person action	In gothic feeling game, the goal is for the player to kill as many demons as possible, playing as Nero or Dante, two powerful demon hunters. The player goes on missions, which are then graded, collects items and moves through the story arc.	In this game, many demons are killed. The player can fight with large swords, high-powered pistols, and special demon killing powers, like special arm strength that can pulverize demons. Demons disappear when killed Graphic and frantic fighting.
21.	Donkey Kong ⁷¹ 1981	Victor Mark	Everyone	3 rd person Platformer puzzler	Players play as Mario the Plumber, moving through levels, avoiding obstacles, destroying objects, collecting items, completing tasks and gaining points. The goal is to save the heroine Pauline from the ape Donkey Kong.	Players use cartoon violence like hitting obstacles with hammers to destroy them. They disappear upon destruction.

22.	Doom 2 ⁷² 1994	Ryan	Mature	1 st person shooter	The player is a space marine, returning to earth and finding it overrun with demons. The player must secure the spaceport allowing humans to leave earth, thus securing the survival of humanity. The player goes on the find the source of the demon egress onto earth, enters it, battles the main demon and closes the portal. Players navigate levels, picking up useful items, gaining experience and battling monsters.	Players use their fists, various guns, and chainsaws to kill humans and monsters. Enemies die in bloody explosions. The bodies often remain in bloody piles on the ground. Mutilated bodies and blood are visible.
23.	Dragon Age: Origins ⁷³ 2009	Adam	Mature	3 rd person Fantasy RPG	The player assumes the role of the Grey Warden, whose goal it is to defeat the Archdemon and save the world from the disastrous event known as the Blight. The player moves through the open world storyline fighting enemies and finally saving the world.	The player uses bows and arrows, magic and swords to fight enemies. The player can decapitate and plunge swords into chests. Blood spatters are seen.
24.	Dragon Quest VIII ⁷⁴ 2005	Lisa Daniel	Teen	3 rd person 1 st person option when fighting Fantasy RPG	A possessed court jester turns the entire castle into trolls, plants and animals except for the protagonist. In this story-driven open world, the player must break the spell and return everyone to humans. The player battles enemies, collects items, becomes more powerful and gets the girl.	They player, using weapons and magic, battles various enemies. When defeated the enemies turn into dust and disappear.
25.	Duck Hunt ⁷⁵ 1985	David	n/a	1 st person Sport shooting game	Using zapper, the player shoots at ducks on the screen to kill them. The more killed, the higher the score.	When shot, the ducks cast off a few feathers, squawk and fall to the group. A dog picks up the dead ducks and shows them to the player.
26.	Duke Nukem Forever ^{76,77}	Laurie David Samuel	Mature	1 st person shooter	The player plays as Duke, a misogynist muscle bound man who has previously saved the world from aliens. Alien are now re-invading the earth and Duke finds he must save it again. Now the aliens are abducting Earth's women, including Duke's two girlfriends. He battles aliens, a government bent on betraying him and ultimately saves the Earth. The player moves through levels, collects objects and battles enemies.	Players can use a variety of weapons to dispatch enemies, from large guns to bare hands. The kills can be graphic and bloody.
27.	Dwarf Fortress ⁷⁸ 2006	Ryan	n/a	Top-down Construction and management simulation	Open world, sandbox game where players creates environments for their dwarves, and then are responsible for their well- being. The players establish successful colonies, manage complex competing needs and defend their fort from enemies.	Players engage with opponents such goblins that are a threat to their communities. Player has god-like control over the world. Combat wounds are described by text in the scrolling log.

28.	Eastern Mind: The lost souls of the Tong Nou ^{79,80} 1994	Ryan	everyone	1 st person	Players wakeup to find that they have lost their soul and they must to the island of Tong Nou to reclaim it. The island turns out to be a large green head in which the player must enter and explore. The goal of the game is to die and transmigrate into new entities, and them complete the fate of the entity. Non- linear.	Players get enveloped by the opponent and then die. For example, a large mouth comes at the screen, and the player is killed and starts the reincarnation sequence. No blood or graphic violence.
29.	Elsword ^{81,82} 2007	Ellen Victor	n/a	3 rd person MMOG RPG	The story takes place in a mystical land, where the stone that provides life has been stolen. Players go on quests, works in teams, gather items, increase fighting skills, form alliances, raise pets, and explore the land, while attempting to find the stone and save the land.	Elsword has been characterized as a "beat- em-up" type MMO. Players, using variety of weapons, skill and magic, fight with opponents. When defeated, opponents fall to the ground, disappear and items or coins appear in their wake.
30.	Elder Scrolls V: Skyrim ⁸³ ⁸⁴ 2011 (also played Elder Scrolls IV)	David Daniel John Ryan	Mature	1st and 3rd person fantasy RPG	This is an open-world role playing game, taking place in Skyrim, the northernmost province of Tamriel, during a time of civil war and dragon attacks. The hero (the player) finds that he is one of the dragonborn, capable of killing dragons and stealing their voices. The player completes quests, learns magic, collects valuable items, thus becoming the powerful person in the land. The player must ultimately defeat Alduin, the first dragon and the Nordic god of destruction.	While graphic violence is endemic in this game, players can choose the personality of their avatars, from villainous to virtuous. Players use various hand- held weapons and bows and arrows in brutal combat, blood and body parts are seen. Executions and torture are shown.
31.	Fallout III ⁸⁵ 86 2008 (Also played Fallout: New Vegas)	David John Mark Brian 16,5,9,11	Mature	1 st person RPG adventure	The open-world game is set 200 years from now in a post-apocalyptic future, 30 years after a devastating nuclear war. Much of life is lived underground. The player has grown up with his father in vault 101, but when his father leaves the vault, the player goes to search for him. On the surface the player encounters a dangerous wasteland, where the player must complete quests, collect items, collect karma points and battle with mutants, while being assisted by other human survivors. Ultimately, the player must defeat the remnants of the former US government, who are planning to infect everyone with a virus, except themselves.	The player is able to use a variety of weapons from handheld to rocket launchers. It is bloody and graphic, with body parts flying and blood spattering.
32.	Far Cry III 87,88	Tom	Mature	1 st person shooter- open world-	The player plays as vacationing Jason Brody	The player kills thousands of people in the course of

	2012 (Also played Far Cry 1&2)			action/ adventure	who is stranded on tropical island with his friends. Pirates soon capture them, with Jason escaping. He then must work to rescue his friends. He also engages in a spiritual journey to find a knife sacred to the natives. The player must complete quests, find items, battle and kill opponents, and make moral choices to complete the game.	this game, using a variety of weapons from knives and machine guns to other explosives. Death is violent and graphic, with sounds, and bloody graphics
33.	Fire Emblem ⁸⁹ 2008	Lisa	Everyone 10+	Top down 3 rd person Tactical role playing game	A prince, who has previously fled to exile, must now retake his kingdom, rescue his sister and save the realm from the evil Shadow Dragon. The player must move through levels, gaining skills and powers, while fighting opponents and collecting items.	The player engages in combat using various handheld weapons. The battles are visually simple and do not contain blood. The opponent disappears when killed.
34.	Flyff ^{90,91} 2005	Ellen	n/a	MMOG RPG	Set in the fantasy world of Madrigal. Players design characters, go on quests, collect items and kill monsters. No one character can do everything, for success player-groups must be formed. The goal is to level up your character, becoming increasingly skilled and powerful.	When players kill monsters, they drop to the ground and disappear. Players use weapons, magical items and potions to defeat foes. Players can also duel other players via their avatars.
35.	Final Fantasy VII ^{92 93} 1997 (Also played FF VIII)	Victor Lisa Daniel Adam	Teen	3 rd person Fantasy RPG	Players embark on quests to prevent an evil corporation from taking over the world. There are 9 playable characters, each trying to stop the world-controlling megacorporation Shinra from draining the life of the planet for use as an energy source. The player battles opponents, collects items and levels up.	The player engages in combat with a variety of weapons including guns, swords, spears, boomerangs, etc. When opponents are defeated, they become transparent then disappear. No blood is seen.
	Gears of War 3 ^{94,95} 2011	David Daniel	mature	3 rd person shooter	planet, the human inhabitants are under attack from giant intelligent locusts and other mutants. Elite fighting forces known as Gears must find ways to defeat the enemies and save humanity. The player plays as the leader of the Delta Squad. Players complete missions to further the story, gaining experience, which increases based on the number of kills and executions the player completes.	Very violent game. The player uses high powered weapons to destroy the aliens, which explode in gold colored liquid. Blood is seen when human characters are killed. Players can complete "finishing moves" resulting in graphic kills, earning them extra points.
37.	Goat Simulator 96,97	Ryan	Mature	3 rd person	In this game, the player controls a goat that roams an open-world suburban environment. The goal is for the goat to cause as much destruction and mayhem as	The goat appears relatively indestructible, able to withstand getting run over by cars. When the goat head butts people, they fly around and land on the

38.	Golden Sun: Dark Dawn ^{98 99,100} 2010	Lisa	Everyone 10+	3 rd person RPG fantasy, quest	possible. The player can earn points by having the goat preform stunts and can gain greater powers by collecting golden goat hidden around the environment. Players, having saved the fantasy world Weyward in the last game by restarted the life-giving force of Alchemy, must now find ways to deal with Alchemy's life giving but destructive forces. Players must battle opponents, solves puzzles and mazes, find items and preform magic and spells to bring order and save the world.	ground, and can appear dead. No blood or body parts are seen. Player characters' use bows, swords, axes, staffs, and magic while fighting a variety of non-human fantasy opponents (giant rats, troll-like apes, etc.). When eliminated enemies flash brightly for a split second and then disappear.
39.	Grand Chase ¹⁰¹ 2008	Ellen Victor	n/a	3 rd person MMOG fantasy	Two kingdoms are living together peaceably until a shape shifter comes and creates strife, causing war to breakout. After years of war, the king realizes the source of the discord and goes after the shape shifter, however she has disappeared. The hunt for her is the Grand Chase. The players develop characters, complete quests, collect items, and gain experience points to level up, making their characters increasingly powerful. Players work in teams.	Players use magic, hand held weapons to fight monsters. Fighting can be frenetic, but there is no blood or body parts. When killed, the monsters disappear. Players are rewarded with in-game money, experience points and items for killing monsters.
40.	Godfather ¹⁰²⁻¹⁰⁴ 2004	Ellen	Mature	3 rd person Open-world Action adventure	It is 1940s New York and the game follows the adventures of the Corleone crime family as they attempt to become the dominant force in the New York Mafia. The player plays as Aldo who, as a child, saw his father murdered by the Barzini crime family. He joins up the Corleone's and begins by completing low level missions, and eventually moves up to murder and high level extortion. Finally, the player becomes a made man and ultimately the Don of New York.	Players engage in bloody contract killings using a variety of weapons. Players also engage in torture. When foes are killed, there is blood and carnage.
41.	Grand Theft Auto V ¹⁰⁵⁻¹⁰⁷ (Also played GTA 1-4)	Laurie Anna Jack Mark Joel Maria Brian Tom Ryan	Mature	3 rd person and 1 st person shooter, action adventure	GTA games are open world games set in thinly veiled US cities with players playing criminals involved in the underworld. GTA V, the latest iteration of the franchise, is set in the fictional San Andreas, modeled after Southern California. The player plays as one of three gangster characters, who together and separately complete a variety of violent crimes.	Playing as criminals, the player uses a variety of realistic weapons to kill people. Cars can also be used to run over pedestrians. Hundreds of people may be killed during game play. Bloody, graphic and violent.

					The player is able to have sex with prostitutes, torture and kill people, steal, drive without regard to rules, drink, smoke and use drugs. The player moves the story by completing missions, collecting money, increasing skills and carrying out heists.	
42.	Guild Wars 2 ^{108,109} 2012	Tom	Teen	3 rd person MMOG	In the high fantasy world of Tyria, five sleeping elder dragons are waking and will wreak havoc on the land. Players must band together to form guilds to fight the dragons and save the world. Players customize their avatars, then engage in the world, learning skills, collecting items, leveling up to become more powerful.	Players kill fantasy creatures and humans to further game play. They will use magic spells and weapons like swords, firearms, and explosives. Blood is sometimes visible and corpses are seen after kills.
43.	Half Life ¹¹⁰ 111 1998	Jack Ryan	Mature	1 st person shooter	Set in the near future, the player plays as Gordon Freeman, a scientist as the Black Mesa Research facility. After an experiment goes terribly wrong unleashing aliens, Freeman is caught between aliens and the government soldiers sent to clean up and cover up the incident. Ultimately Freeman must go through a space portal and destroy the alien that is holding it open, thus saving the world.	The main weapon that Freeman uses is a crowbar to smash and kill opponents. He can also use various guns and blow people up, with body chunks flying around. Blood spatters are seen.
44.	Halo: The Master Chief Collection ¹¹²⁻¹¹⁴ 2014	George Laurie David Joel Samuel Ryan	Mature	1st person shooter Military science fiction	The game centers on an interstellar war between humanity and a theocratic alliance of aliens known as the <u>Covenant</u> . The player controls Master Chief Petty Officer John 117, a cybernetically enhanced super soldier. The player must battle the aliens, complete missions and gain skills to save the world.	Players engage in intense, graphic violence, using a range of weapons from guns, grenades, knives, etc. Thousands of aliens will be killed. Screaming and large amounts of blood are parts of battle.
45.	Happy Wheels ^{115,116} 2010	Patrick	n/a	3 rd person platformer	The player selects a character and a vehicle (ranging from a wheelchair to a tractor) and traverses the level. In route the player can run over people or be killed in a variety of ways. The goal is to complete the course.	Players and NPCs can be decapitated and torn into to chunks in a variety of ways. Cartoonish blood spurts and body bits are everywhere.
46.	Infamous 117,118 2009	David	Teen	3 rd person shooter, post-apocalyptic action- adventure	The player plays as Cole McGrath, a normal human until a package he is delivering explodes, destroying everything around him, but leaving Cole with superhuman electrical powers. In this open-world game, Cole must decide to use his powers for good or evil. To save the city, Cole must complete	Graphics are like comic books. Players use their superhuman electrical powers to kill opponents. Some blood can be seen, but not to graphically.

					missions while gothering	
					missions, while gathering more powers, gain	
					experience points and killing	
47.	Heavy Rain ^{119,120}	Samuel	Mature	3 rd person Interactive drama, mystery	the bad guys. In this interactive noir thriller, the player plays four different characters, all trying to find a mysterious serial killer who preys on young children. One of the playable characters is trying to save his son who has been captured by the so-called origami killer. Decisions made by the player affect the arc of the game. This is a dark, but engrossing game.	In this game, the player can use weapons to fight, in which blood is present, may see corpses. Not a shoot- em up, more of a murder mystery.
48.	Injustice: The Gods among us ¹²¹⁻ ¹²³ James Bond	Connor Patrick	Teen	3 rd person fighter	This game is based on the DC comics superheroes and villain pantheon. The superheroes are transported to an alternative dimension where Superman has become a malevolent dictator. The other superheroes must defeat Superman and his allies in order to reestablish democracy and the American way. This is done through a series of one-on- one fights.	Players punch, kick, and generally beat-up their opponents using a variety of weapons, including knives, swords, machine guns, crowbars, etc. Impact sounds are heard and blood splashes are seen.
-5.	007: Bloodstone 124,125 2010			Action adventure	destroy the world are missing and MI6 called in James Bond to find the culprit. In this game, the player plays as James Bond, tracking down and neutralizing the bad guys using hand-to-hand combat, real- world weaponry, and various vehicles.	in various ways, from choking, to using weapons and vehicles to run people over. Foes, when overpowered or killed, fall to the ground in a heap. Occasional blood spatters are seen.
50.	Kingdom Hearts ¹²⁶ 2002	Ellen Laurie	Everyone 10+	3 rd person Action RPG young warrior in fantastical world to stop a destructive force	Set in a mash up of the Final Fantasy and Disney worlds, the player plays as Sora who, along with her companions Donald and Goofy, must find three friends who have been taken by the Heartless, the antagonists, whose hearts have been corrupted by darkness. The player moves through levels, gaining experience points, increasing in power and skill.	The player engages in many battles against a most non-human enemy group. Foes are killed using staffs, key blades, shields, etc. No blood is shown. When opponents are killed, they burst into colorful lights and disappear.
51.	Kirby ¹²⁷ (multiple games)	George Joel	Everyone	3 rd person Action platformer	Kirby is a pink ball type creature from the planet Popstar. The goal in most of the Kirby games is to save Dreamland, a kingdom constantly under threat from King Dedede, Dreamland's evil ruler. Players move through levels, solving puzzles and inhaling enemies, thus gaining power from them.	The player plays as Kirby and defeats enemies with his powerful inhale, sucking them in. Enemies can also disappear in a puff of smoke.
52.	League of	Jack	Teen	3 rd person online	The game is set Runterra	The purpose of this game is

	T . 1	D.		11		1
	Legends 128,129 2009	Brian		battle arena	mythical world where the action of the game takes place. The players assume the role of a "champion" with unique abilities and battle against a team of other players or computer- controlled champions. The goal is to rack up kills and capture the opponent' base.	kill opponents in melee- style combat. Players can use of variety of weapons (various swords, arrows and guns) to accomplish this. Foes fall to the ground. Minor blood may be seen.
53.	Left 4 Dead ¹³⁰⁻¹³² 2008	David Adam	Mature	1 st person shooter survival horror	Set in modern day Pennsylvania during the aftermath of a pandemic apocalypse that caused most of humanity to turn into killer zombies. The player assumes a role of one of the four survivors who work together kill the zombies and try to escape.	Players kills zombies in melee-style combat using a variety of weapons from guns to Molotov cocktails. Zombie heads and limbs are frequently blown off, leaving blood streaks around.
54.	Legend of Dragoon ¹³³ 2000	Lisa	Teen	3 rd person RPGfantasy questing	The story takes place in the fantasy world of Endiness. The world is under attack by monsters and an evil emperor. The hero finds that he has the power of the Dragoon, a legendary knight who fought in an ancient battle which saved humanity. Now, along with other Dragoons, the hero must quest to again to save the human race. The goals are to gain experience, collect items, kill foes, become more powerful and save humanity.	Using hand-help weapons and magic, the player overcomes foes. No blood is seen.
55.	Legend of Zelda: Ocarina of Time ^{134,135} 1998 (Also played- other Legend of Zelda games)	George Victor David Adam	Everyone	3 rd person action adventure Puzzles	The game takes place in the Kingdom of Hyrule. The player plays as Link, an elven boy who finds out that he has been chosen to save the land and defeat the evil King Ganondorf. The player moves Link through levels, completing puzzles, collecting items, gaining power and battling monsters.	Link fights and kills various monsters with weapons and items ranging from swords to explosives to a bow and arrows. Monsters bleed blue or green blood when attacked. Must of the story line revolves around battling.
56.	Little Big Planet 3 ¹³⁶ 2014	George	Everyone	3 rd person Puzzle platformer	The player plays as Sackboy, a small brown, humanoid creature with button eyes. In the game, Sackboy is transported from LittleBigPlanet, modeled after earth, to another world, Bunkum. Here, he must awaken its three missing heroes, OddSock, Toggle and Swoop. Sackboy moves through colorful levels, avoids hazards and uses his special powers to defeat enemies. Much of the focus of this game is on creation of game content.	Players can jump on enemies' heads and/or redirect them into hazards; enemies generally pop/disappear amid mild explosions when defeated.
57.	Mabinogi ¹³⁷ 2008	Lisa	n/a	3 rd person MMOG RPG	Players create their own character, join guilds, practice professions, and go on quests. Players gain skills, collect items and try	There are a lot of battles in Mabinogi, where players engage in hand-to-hand combat using weapons and magic. Players stick others

58.	Madden NFL ¹³⁸ (Multiple games)	Anna Daniel Connor	Everyone	Sports game football	to level of their characters. It is a highly social environment based on Celtic and Welsh mythology, where players interact with each other. In these games, the players can engage in all aspect of football, from team creation, to playing on the field, from running, passing, defending, play calling and tackling.	with swords and frenetically fight. However, there is no blood and gore. The game mirrors the real- life sport with hits and contacts and tackles. In later iterations of the game head butting is not allowed and players that sustain concussions are no longer allowed to return to the game. Player win by
59.	Maple Story ¹³⁹ 2005	Ellen Lisa	Everyone 10 +	3 rd person MMO 2-D platformer	Players become citizens of Maple World and work to defend it against the evil Black Mage. The goals of the game are to improve the skill and status of a player's avatar over time. Players can interact, go on quests, combat monsters, acquire experience points, collect items. Players can also develop in-game professions, allowing them to craft useful objects.	winning the game. Players are required to kill monsters to advance in Maple story. Weapons include things such as swords, daggers, whips, various magic items, guns, axes, etc. When killed monsters just fall over and disappear. If an avatar gets killed, a "ghost shape" replaces it.
60.	Mario Kart ^{140,141} (Multiple games)	Laurie Lisa Adam	Everyone	3 rd person Car racing	This is a cartoonish racecar game based on the Mario universe. The famous plumbers race against their friends and enemies, trying for the fast time.	Players can throw out various items such as banana peels, turtle shells, etc., to slow down other racers. The racers just flip over. They always right themselves and no one is hurt and the race continues.
61.	Mass Effect 3 ^{142,143} 2012	Samuel Adam	Mature	3 rd person shooter action RPG Science fiction	It is 2183 and Earth has contacted multiple alien species. The planet is now under attack by a nearly unstoppable foe, the Reapers, and all out galactic war is occurring. The player plays as Commander Shepard, the soldier charged with bringing about a galactic alliance to save Earth. Shepard is alternative helped and hurt by a human- survivalist paramilitary group known as Cerberus, led by the Illusive man. The player's goal is to save the universe by defeating the Reapers in battle.	Using a wide variety of advanced weaponry, players can graphically kill humans and aliens. Player can also engage in hand-to- hand combat, and space battles. It shows realistic violence and blood.
62.	Minecraft ¹⁴⁴ 2011	Lisa Jack Connor Patrick	Everyone 10+	Sandbox building game	Players use 3D blocks to build structures and environments. Players can also explore, resource gather and craft items. Multiple game modes are available including combat, survival, adventure and creative modes.	Players can do battle with monsters with swords and bows and arrows but these creatures can also be avoided. There is no blood or gore; graphics are blocky and rudimentary. Monsters disappear in a puff of smoke when defeated.
63.	Medal of Honor ^{145,146} 2010	Ryan	Mature	1 st person shooter	This game is set in Afghanistan, during current combat operations. The player plays members of the	This is an extremely violent and realistic war game. Players use high powered weapons and can target foes

					Wolfpack, a US fighting team attempting to defeat the Taliban. They go on missions that typically include elements like hostage rescue, raiding enemy hideouts and undercover operations to violence and stealth to achieve goals.	by looking down the barrel of a gun. There is profuse blood and victims scream in pain and terror then being killed. Fight can be fast paced and vicious.
64.	Metal Gear 4 ¹⁴⁷⁻¹⁴⁹ 2008 (Also played Metal Gear games)	Brian Ryan	Mature	3 rd person shooter action adventure	It is 2014, and the world is in almost constant civil war fought by private military companies with soldiers whom are equipped with nanomachines to enhance their fight abilities. The soldiers are controlled through a system called Sons of the Patriots. The antagonist, Liquid Ocelot, plans to hijack this system to control the soldiers, renaming them Guns of the Patriots. The player plays as Solid Snake, a genetically engineered super-soldier, whom, although he experiencing accelerated aging because he is a clone, can battle Liquid Ocelot and save the world. Unlike other games, it does show the futility of war.	The players can engage in realistic violence using guns, knives and hand-to- hand combat. When foes are killed, they cry out and blood is seen. They call to the ground with wounds visible.
65.	Metroid Prime ¹⁵⁰ 2002	David	Teen	1 st person action adventure	The player control the bounty hunter Samus Aran as she battles space pirates and their biological experiments on the planet Tallon 4. Play involves moving through levels while puzzle solving to unlock secrets, platform jumping, collecting items and shooting foes.	The player shoots many aliens during this game. Non-red blood is seen when aliens are shot. Sometimes enemies explode.
66.	Mortal Kombat ¹⁵¹ 2010	Lisa	Mature	3 rd person fighting game Battle arena	Mortal Kombat is set in a fictional universe of various realms, one of which is Earthrealm (our world). All realms are controlled by the Elder Gods, and differences are settled by hand-to-hand combat. Characters all have special powers and finishing moves. For the finishing move, the winning character hurts or kills the opponent graphically; bodies are made temporarily transparent so that bones breaking and organ damage can be viewed. The goal is to have your character be the best fighter.	Extremely violent game. The entire point is to kill your opponent in the most gruesome way possible, which may include impalement, bone snapping, ripping flesh in half, and gunshots to the head. there are also X-Ray effects so the player can see what's happening inside the opponent's body when inflicting damage, such as ripping a foe's spine out.
67.	NBA Live ¹⁵² (multiple games)	Anna	Everyone	Basketball simulation game	In this game, players simulate playing NBA basketball by using real NBA rosters, selecting players, calling plays and playing the game.	Player use skill to play and best their opponents on the basketball court.

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68.	Neopets 153,154 2007	Lisa	Everyone	3 rd person Pet care game	In this game, players select pets and then must care for them. Players collect "neopoints" to buy what items for their pet. They do this by playing a wide variety of games, so of which having marketing imbedded. Players can also buy neo lottery tickets and invest in the neo stock market. They can sell unused items to other players. Neopets can also be battle trained and fight other	In the battledome, owner can have their pets battle using various weapons from a candy cane sword to a zombie squirt gun. If a pet loses the battle it doesn't die but it must recover before it can fight again.
60	NeverWinter	Samuel	Toop	3 rd person MMOG	pets in the battledome. Based on the game	During quacting the player
69.	2013	Samuel	Teen	3° person MMOG RPG	Based on the game Dungeons and Dragons, it brings in much D&D game play such as rolling the dice to build your avatar. The game takes place in the Forgotten Realms. The city of Neverwinter has been thrown into chaos after the disappearance of its last Lord. The undead are rising and attacking the realm. Players take the role of citizens and form factions with other players, go on adventures, then struggle for dominance, while gaining skills, collecting valuable items, solving puzzles and leveling up.	During questing, the player encounters and fights many foes with a variety of weapons and magic. When hit, the enemy falls to the ground and the player can loot the body. Very little blood.
70.	Nintendogs ^{156,157} (multiple games)	Joel	Everyone	3 rd person (Pet) 1 st person (player) Pet care simulation	Players adopt and then careful virtual puppies. They must feed, water, walk, groom, train and pet their animals. Failure to do so causes the puppy not to thrive and may cause it to run away. Players receive points for caring for their animals. Players may enter their puppies in shows and received points for how well they do. Players can buy items for their pets or new pets with the points.	This is a non-violent game. Completion is based on how well a player cares for and trains their pet.
71.	Operation Flashpoint ^{158,159}	Ryan	Mature	1 st person tactical shooter	This game is set in the Middle East, with players playing as US Marine Fire team Bravo Unit, sent to fight enemy forces. Using realistic weapons, the players go on missions to secure areas, destroy IEDs, protect resources and kill insurgents.	This is a realistic shooter. Players use high-powered weapons and sight their kills down the barrels of guns. There is copious blood and those shot may have body parts fly around.
72.	Orly's Draw a Story ¹⁶⁰ 1999	Laurie	n/a	Creative- player illustrates a story	In this game player listen and watch stories told by Orly, a Jamaican girl accompanied by her pet frog. Players are asked to draw elements of the story	Non-violent. Non- competitive.
					which then are used to further the plot.	

	161,162				town in 2011. The protagonist moves from the city to stay with his uncle Dojima and cousin Nanako. Soon mysterious murders begin to happen and the player discovers he and his friends can move from the real world to the TV world with the help of Teddie, a resident bear of the TV world. The player realizes that many of the murders emanate from the TV world and set out to solve the mystery. When players go into the TV world, they will battle enemies, leveling up with each successful battle.	knife and use magic in TV land. There is blood spraying when an enemy is killed.
74.	Pheonix Wright: Ace Attorney Trials and Tribulations ^{163,164} 2007	Laurie	Teen	3 rd person Adventure/ interactive novel	The player players as a court attorney and engages in investigation and prosecution of a case. The case proceeds like a courtroom drama, with the player collecting evidence and cross-examining witnesses. The goal is to win the case.	They player does not engage in violence in this game, although violent scenes are shown depending on the crime in question. The player is trying to bring the criminal to justice.
75.	Pokémon ¹⁶⁵ (multiple games)	George Victor Laurie Lisa Jack Joel Connor Patrick	Everyone	3 rd person RPG	The Pokémon games are set in a fictional universe in which trainers (the players) search for, capture and then train small, fantastical creatures called Pokémon. After obtaining Pokémon, trainers venture through the world with their Pokémon, battling other Pokémon, collecting more, caring for and developing each Pokémon's potential, with the goal of becoming the strongest trainer. The defeated Pokémon react by fainting, not actually dying. Each game has a subplot in which the trainer must also defeat a malevolent force that is attempting to misuse the Pokémon and take over the world.	Player's Pokémon battle other player's Pokémon for dominance. They can use non-graphic hand-to-hand combat or the special skills of their Pokémon. No blood or graphic violence.
76.	Postal 2 166,167	Ryan	Mature	1 st person shooter	This game is set small town Arizona. The player plays as the Postal Dude, who sets out each day to complete several tasks. He can either do this peacefully or by violence. Violent activities include killing people to the point of dismemberment then urinating on them, attaching cats to the end of his gun and using them as "silencers." This game has been banned in several countries due to its objectionable content.	The player can freely roam around graphically killing people and animals with a variety of weapons from swords to guns. The player can set people on fire and watch them crawl as they burn. Very gory and bloody.
77.	Professor Layton	Laurie	Everyone 10+	Puzzler adventure	Players solve mysteries by solving puzzles. Players get	Occasionally the player engages in minor battles

	(Multiple games) ¹⁶⁸				clues after they complete brainteasers related to the story. To progress in solving the mystery, the play needs to use math, reading and reasoning skills.	such as martial arts, although no one gets hurt.
78.	Red Dead Redemption ¹⁶⁹⁻¹⁷²	Mark	Mature	3 rd person open world action adventure	It is 1911 in the West. The player plays as John Marston, a former outlaw whose wife and son have been taken hostage by the government. Marston must hunt down the men in his former gang as ransom. The player goes on missions, lives off the land and can freely roam the land. Succeeding in gunfights is a major play component of the game.	Players engage in gunfights involving rifles, pistols, and slow motion effects occur frequently. Players can also fight with knives. Corpses are visible and blood can be seen spurting from wounds and gathering in puddles on the ground. Scenes of torture occur.
79.	Red Steel 2 173,174	David	Teen	1 st person sword fighting	Set in the Nevada desert, the player plays as a samurai on a quest for retribution for the murder of his clan and to recover his stolen katana. The player goes on revenge quests, gaining skills and acquiring items which will ultimately allow him to slay his nemesis.	This game is played on the Wii game console, with a handheld motion sensor, allowing the player the act out the action. This game contains unrelenting violence, with the player using guns and swords to fight foes. To advance the game, hundreds of villains die. However, when the villains die, they turn to dust and disappear, there is no bloodshed or gore.
80.	Resident Evil 6 ^{175,176}	Anna	Mature	3 rd person shooter, action adventure	Bio-terrorists have unleashed the C-virus, capable of turning everyone it infects into killer zombies. The player can play one of four characters, each instrumental in stopping the c-virus from destroying all of humanity. The players go on campaigns, kill enemies and zombies, collect items and move through the game plot.	In this extremely violent game, players use melee weapons as well as guns and explosives to defeat the zombie onslaught. Blood splatters and players can dismember, decapitate and impale both zombies and humans.
81.	RIFT ^{177,178}	Adam	Teen	3 rd person MMOG fantasy	In this fantasy game, Telara, the world of RIFT, is being torn apart by invasions from other planes as well as from the threat of the demonic dragon, who is also seeking to rule the lands. Warrior souls have been brought back by the gods to battle the invasions. But even though the overall goals are the same, the Guardians (those who abstain technology) and the Defiant (those that embrace a sort of steampunk technology) are opposed and will battle each other if the chance permits. Players decide to join the ranks of either the Guardians or the Defiant to	The combat is violent, rapidly paced, and includes blood. There is no gore, decapitation, or dismemberment, but players can expect to hear cries of pain when in combat, and there are areas in the game where dead bodies are seen. The weapons used in the game are swords, daggers, axes, etc. Opponents fall to the ground when killed.
82.	Runescape	Ellen	n/a	MMOG	thwart the attacking evil. In this highly social and	Avatars kill monsters in this

	179		1	DDC		
	2005	Lisa John Jack Mark Joel		RPG fantasy	interactive game, players design and select avatars. The game takes place in Gielinor, a medieval fantasy realm, where inhabitants can do magic, go on quests and kill monsters. Players can work cooperatively in guilds to accomplish goals, and level up their avatars. Players also work at jobs crafting things to make in- game money.	game, using a variety of medieval weapons. It is not bloody or gory.
83.	Second Life 180,181 2003	Brian Ryan	n/a	3 rd person MMOG Virtual world	Second Life is less of a game and more of a virtual community. Players create fully customizable avatars, which they then use to interact with others. With Second Life, players can own virtual land, engage in virtual commerce and have virtual relationships and have virtual sex. By crafting and selling virtual items, a few players have made substantial real-world money. Communities often gather based on mutual interests. A wide variety of games can be played within Second Life.	Depending on how the player engages with Second Life, it can be quite violent. Avatars are armed and can battle one another (usually with a medieval twist). The extent of combat and casualties depends on where the player goes. There have been reports of virtual suicides and rape on the site in the past. However, since much of the content is user created, and there is no specific storyline, each user experience may be different.
84.	Sims (Multiple games played) ¹⁸²	Laurie Anna Ryan 18,4,7	Everyone Everyone 10+ Teen	3 rd person Life simulation, virtual world	In these games, there often is no set goal. Players are encouraged to create virtual people, buy or build a house, develop a profession, direct their moods and satisfy their desires. In some Sims versions, there is more directed game play	While not directly violent, Sims can taunt, insult and fight with each other.
85.	Sonic (multiple game played) ¹⁸³	George Daniel Adam	Everyone	3 rd person Action platformer-	These games chronicle Sonic, a blue hedgehog, attempts to save the world from Dr. Robotnick, who desires world domination. The player usually controls Sonic.	Sonic frequently fights with his enemies but there is no blood shed or death.
86.	Spyro: The year of the Dragon ¹⁸⁴ 2000	Joel	Everyone	3 rd person Platformer- gather eggs defeat dragons	Players play as Spyro, a small purple dragon. Spyro must travel many worlds to collect dragon eggs and gems. The dragon eggs are given as rewards for completing various tasks and levels. Spyro eventually battles the Emperess, the original thief of the dragon eggs and bests her. He then can return the baby dragons to the dragon realm.	Players engage in battles with various enemies, but there is no blood and only comic violence.
87.	Star Fox 64 ¹⁸⁵ 1997	Laurie	Everyone	3 rd person Scrolling shooter	The player plays a Fox McCloud, a red fox who pilots a spaceship. The player must save his planet system from Andross, the evil monkey antagonist. The player pilots a space ship, blows up enemy ships, collects items for later use	When the player shoots down another space ship, the ship bursts into flames and crashes. The player uses high powered space guns to shoot down the ships.

					and ultimately defeats	
88.	Star Wars ¹⁸⁶ (multiple games played)	John Adam Ryan	Teen	3 rd person 1 st person	Andross. The games are set in the Star Wars universe, with the player selecting from a large variety of characters to play depending on the game. The player roams the universe, fighting evil (or being evil, if that sort of character was selected) to bring balance to the force.	Players use light sabers, guns, explosive devices, missiles and lasers to fight enemies and blow up enemy ships and targets. Damage on objects can be seen, but there is little physical damage seen to humanoid characters, falling lifeless to the ground.
89.	Street Fighter III ¹⁸⁷ 1999	Lisa Brian	Teen	3 rd person Fighting game	The player selects one of fighters. The goal is to beat up the opponent.	A player hits, kicks and throws things at the opponent. The hit the player and the opponent grunt and react, including flying up into the air. When a opponent is beaten badly enough they fall supine to the ground. The voice over says, "You win, that's cool."
90.	Super Mario ^{188,189} (multiple games played)	George Victor Laurie David Daniel Mark Joel Adam Maria Brian	Everyone	3 rd person Platformer-	The games follow plumber Mario's adventures in the fictional Mushroom kingdom as he attempts to save Princess Peach from the primary antagonist Bowser, the leader of the powerful and greedy Koopa race, a turtle-like group with dragonoid features. The player guides the avatar through a series of obstacles, often running, jumping or flying to advance the game. The object is to progress through levels, collect items to use as power-ups, and defeat enemies en route saving the princess, all without dying.	Players use various power- ups they have collected to defeat enemies, who often crumble, disappear in a puff or appear stunned when vanquished.
91.	Super Smash Bros. Brawl ¹⁹⁰ 2008	George Laurie Jack Mark Joel	Teen	3 rd person Fighting game	This game brings in popular characters from various video game franchises. Using special moves, players battle and attempt to defeat the opponent.	Players use fists, legs, and weapons to fight opponents. When bested, opponents, disappear, burn up or explode.
92.	Team Fortress 2 ^{191,192} 2007	Mark Patrick	Mature	1 st person shooter	The gameplay is centered around two opposing teams, the RED team and the BLU team, both trying to each the objective. The player can choose to be either RED or BLU, and chose to be one of nine different classes in their team, each with their own abilities, weaknesses and strengths. The objective depends on game mode with most centering around "capture the flag" type scenarios.	Players attempt to kill and do harm to others, using hand-to-hand combat, knives, guns and other weapons. Blood will spray when a player is shot. When a player is slashed, or blown up, pieces and body parts will fly across the ground, letting blood rain down on the landscape. Most deaths end in the killed player's character model going limp and becoming a "ragdoll", with perhaps some red splotches depending on how much they were injured prior to

						dying.
93.	Tetris	Daniel	Everyone	Electronic game board	Players attempt to rotate blocks into to fit together as they drop from the top of the game. Scores increase as more blocks are fitted.	The player attempts to get increasingly high scores.
94.	Toho Project: Undefined Fantastic Object ¹⁹³ 2009	Jack	n/a	Scrolling shooter Shoot-em up fighting game	The goal is to shooter as many objects as possible while collecting items. The player is attempting to find an unidentified flying ship so that its treasures can be plundered.	When destroyed, objects disappear. No blood.
95.	Uncharted 2 ^{194,195} 2009	George	Teen	3 rd person Action/adventure shooter	The player plays as Nathan Drake, a thief. In this game, the player with his accomplices steal and oil lamp once owned by Marco Polo that contains the directions to Shangri-La and a mysterious substance that makes a person invincible. Story-driven game.	Nathan can use knives and guns to kill opponents. He also uses chokeholds to break the necks of enemies. Blood and bodies are seen.
96.	Warcraft III ¹⁹⁶ 2002	Jack	Teen	3 rd person Real time strategy	Takes place in the World of Warcraft universe. Players chose one of 4 races, then completes campaigns. The final campaign is an epic battle, which involves the player striking down many enemy foes and destroying their base.	Players continually fight in intense fights. There is little gore, but very violent. Players use various objects like axes to hew at each other.
97.	Wolf Among Us ¹⁹⁷⁻¹⁹⁹ 2013	Mark Adam	Mature	3 rd person Interactive story	Set in 1986, many creatures from myth, legend and folklore have moved to New York to escape "The Adversary" an entity that has terrorized their storybook homeland. In the mundane world, the creatures, live in enclave known as Fabletown and hide by using glamours, disguises that make them look human. The Big Bad Wolf, known as Bigby Wolf, is the sheriff of Fabletown. The player plays as Bigby. The story revolves around a murder investigation being conducted by Bigby. Players follow clues and try to figure out who murdered Snow White.	Combat involves humans and fantasy characters punching, tackling, biting, and shooting each other. While comic book appearing, the violence is graphic, with decapitated heads, blood and gore seen. Multiple scenes depict an ax embedded in a character's skull.
98.	Words with friends	Laurie	Everyone	Puzzle Scrabble type game	Players try to put the highest scoring words on the board based on the letters in their game tray.	The player with the highest points wins the game.
99.	World of Warcraft ²⁰⁰	David John Jack Brian Tom	teen	ММО	Player design and control avatars as they adventure, fight monsters and complete quests in the fantasy world of Azeroth. Players join guilds with each other and build community. They try to level up their avatars, gaining power and skills.	Quests involve killing monsters using medieval weapons. Blood may be present for the duration of the kill.

References

- Hassandra M, Vlachopoulos SP, Kosmidou E, Hatzigeorgiadis A, Goudas M, Theodorakis Y. Predicting students' intention to smoke by theory of planned behaviour variables and parental influences across school grade levels. *Psychology & health.* 2011;26(9):1241-1258.
- 2. Gardner B, de Bruijn GJ, Lally P. Habit, identity, and repetitive action: a prospective study of binge-drinking in UK students. *Br J Health Psychol.* 2012;17(3):565-581.
- 3. Rise J, Sheeran P, Hukkelberg S. The Role of Self-identity in the Theory of Planned Behavior: A Meta-Analysis. *J Appl Soc Psychol.* 2010;40(5):1085-1105.
- 4. Bronfenbrenner U. Toward an experimental ecology of human development. *American Psychologist.* 1977;34(10):513-532.
- 5. Bronfenbrenner U. Contexts of child rearing: Problems and prospects. *American Psychologist.* 1979;34(10):844-850.
- 6. Bronfenbrenner U. Ecology of the family as a context for human development: Research perspectives. *Developmental psychology*. 1986;22(6):723-742.
- 7. Lenhart A, Duggan M, Perrin A, Stepler R, Rainie L, Parker K. *Teens, social media & technology overview 2015, Pew Research Center, 2015.* Pew Research Center;2015.
- 8. Anderson CA, Shibuya A, Ihori N, et al. Violent video game effects on aggression, empathy, and prosocial behavior in eastern and western countries: a meta-analytic review. *Psychological bulletin.* 2010;136(2):151-173.
- 9. Beck VS, Boys S, Rose C, Beck E. Violence against women in video games: a prequel or sequel to rape myth acceptance? *Journal of interpersonal violence*. 2012;27(15):3016-3031.
- 10. Rothmund T, Gollwitzer M, Klimmt C. Of virtual victims and victimized virtues: differential effects of experienced aggression in video games on social cooperation. *Personality & social psychology bulletin.* 2011;37(1):107-119.
- Saleem M, Anderson CA, Gentile DA. Effects of Prosocial, Neutral, and Violent Video Games on College Students' Affect. *Aggressive behavior*. 2012;38(4):263-271.
- 12. Erikson EH. *Identity: Youth and crisis*. WW Norton & Company; 1968.
- 13. Steinberg L, Morris AS. Adolescent development. *Annual Review of Psychology*. 2001;522(1):83-110.
- 14. Meeus W. The study of adolescent identity formation 2000–2010: A review of longitudinal research. *Journal of Research on Adolescence*. 2011;21(1):75-94.
- Kroger J, Martinussen M, Marcia JE. Identity status change during adolescence and young adulthood: A meta-analysis. *Journal of adolescence*. 2010;33(5):683-698.
- 16. Arnett JJ. Emerging adulthood: A theory of development from the late teens through the twenties. *American psychologist.* 2000;55(5):469-480.

- 17. Konrad K, Firk C, Uhlhaas PJ. Brain Development During Adolescence. *Deutsches Aerzteblatt International.* 2013;110(25):425-431 427p.
- 18. Rideout V. *The common sense census: Media use by tweens and teens.* San Francisco2015.
- 19. Hanewinkel R, Isensee B, Sargent JD, Morgenstern M. Cigarette advertising and teen smoking initiation. *Pediatrics.* 2011;127(2):e271-e278.
- 20. Song AV, Ling PM, Neilands TB, Glantz SA. Smoking in movies and increased smoking among young adults. *American journal of preventive medicine*. 2007;33(5):396-403.
- 21. Glantz SA, Iaccopucci A, Titus K, Polansky JR. Smoking in top-grossing US movies, 2011. *Preventing chronic disease*. 2012;9:120170.
- 22. Dalton MA, Beach ML, Adachi-Mejia AM, et al. Early exposure to movie smoking predicts established smoking by older teens and young adults. *Pediatrics.* 2009;123(4):e551-e558.
- 23. Primack BA, Longacre MR, Beach ML, Adachi-Mejia AM, Titus LJ, Dalton MA. Association of established smoking among adolescents with timing of exposure to smoking depicted in movies. *Journal of the National Cancer Institute.* 2012;104(7):549-555.
- 24. Anderson P, de Bruijn A, Angus K, Gordon R, Hastings G. Impact of alcohol advertising and media exposure on adolescent alcohol use: a systematic review of longitudinal studies. *Alcohol and Alcoholism.* 2009;44(3):229-243.
- 25. Willoughby T, Adachi PJ, Good M. A longitudinal study of the association between violent video game play and aggression among adolescents. *Developmental psychology.* 2012;48(4):1044-1057.
- 26. Adachi PJ, Willoughby T. The longitudinal association between competitive video game play and aggression among adolescents and young adults. *Child development.* 2016;87(6):1877-1892.
- 27. Gabbiadini A, Andrighetto L, Volpato C. Brief report: Does exposure to violent video games increase moral disengagement among adolescents? *Journal of adolescence.* 2012;35(5):1403-1406.
- 28. Greitemeyer T, Mügge DO. Video games do affect social outcomes: A metaanalytic review of the effects of violent and prosocial video game lay. *Personality and Social Psychology Bulletin.* 2014;40(5):578-589.
- 29. Sublette VA, Mullan B. Consequences of play: A systematic review of the effects of online gaming. *International Journal of Mental Health and Addiction*. 2012;10(1):3-23.
- 30. Prot S, McDonald KA, Anderson CA, Gentile DA. Video Games:: Good, Bad, or Other? *Pediatric Clinics of North America.* 2012;59(3):647-658.
- 31. Donovan T, Garriott R. *Replay: The history of video games.* Yellow Ant Lewes, UK; 2010.
- 32. Dreyfus HL. Being-in-the-World: A commentary on Heidegger's Being and Time, Division 1. Cambridge: The MIT press; 1991.
- 33. Heidegger M. Being and Time. New York: Harper Perennial; 1962/1927.
- 34. Benner P. The Tradition and Skill of Interpretive Phenomenology in Studying Health. In: Benner P, ed. *Interpretive phenomenology: Embodiment, caring, and ethics in health and illness*. Thousand Oaks: Sage; 1994.

- 35. *NVivo qualitative data analysis software,* [computer program]. Version Version 10: QSR International Pty Ltd; 2014.
- 36. Smith JA, Flowers P, Larkin M. Interpretative phenomenological analysis: Theory, method and research. Los Angeles: Sage; 2009.
- 37. Kätsyri J, Hari R, Ravaja N, Nummenmaa L. Just watching the game ain't enough: striatal fMRI reward responses to successes and failures in a video game during active and vicarious playing. *Frontiers in Human Neuroscience*. 2013;7:278.
- 38. Kühn S, Romanowski A, Schilling C, et al. The neural basis of video gaming. *Translational Psychiatry.* 2011;1(11):e53.
- 39. Padmanabhan A, Geier CF, Ordaz SJ, Teslovich T, Luna B. Developmental changes in brain function underlying the influence of reward processing on inhibitory control. *Developmental cognitive neuroscience.* 2011;1(4):517-529.
- 40. Elliott L, Golub A, Ream G, Dunlap E. Video game genre as a predictor of problem use. *Cyberpsychology, Behavior, and Social Networking.* 2012;15(3):155-161.
- 41. Hussain Z, Griffiths MD. Gender swapping and socializing in cyberspace: An exploratory study. *CyberPsychology & Behavior*. 2008;11(1):47-53.
- 42. Barrett D. Supernormal stimuli: How primal urges overran their evolutionary purpose. WW Norton & Company; 2010.
- 43. Fleming PJ, Lee JGL, Dworkin SL. "Real Men Don't": Constructions of Masculinity and Inadvertent Harm in Public Health Interventions. *American journal of public health.* 2014;104(6):1029-1035.
- 44. Fischer J, Aydin N, Kastenmüller A, Frey D, Fischer P. The delinquent media effect: Delinquency-reinforcing video games increase players attitudinal and behavioral inclination toward delinquent behavior. *Psychology of Popular Media Culture.* 2012;1(3):201-205.
- 45. Lenhart A, Kahne J, Middaugh E, Macgill AR, Evans C, Vitak J. Teens, Video Games, and Civics: Teens' Gaming Experiences Are Diverse and Include Significant Social Interaction and Civic Engagement. *Pew Internet & American Life Project.* 2008.
- 46. El Hussein MT, Jakubec SL, Osuji J. The FACTS: A Mnemonic for the Rapid Assessment of Rigor in Qualitative Research Studies. *The Journal of nursing education.* 2016;55(1):60.
- 47. Denzin NK, Lincoln YS. The discipline and practice of qualitative research. In: Denzin NK, Lincoln YS, eds. *Handbook of qualitative research*. Vol 2. Thousand Oaks: Sage Publishing, Inc. ; 2000:1-28.
- 48. Rolfe G. Validity, trustworthiness and rigour: quality and the idea of qualitative research. *Journal of advanced nursing.* 2006;53(3):304-310.
- 49. Gadow S. Body and Self: A Dialectic. The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine. 1980;5(3):172-185.
- 50. Saltzman M. Adventure Quest. 2002; https://www.commonsensemedia.org/game-reviews/adventurequest. Accessed January 8, 2016.

- 51. Saltzman M. Assassin's Creed II. 2009; <u>https://www.commonsensemedia.org/game-reviews/assassins-creed-ii</u>. Accessed January 8, 2016.
- 52. Schneider P. Banjo-Kazooie Review. 1998; <u>http://www.ign.com/articles/1998/06/30/banjo-kazooie-review-2</u>. Accessed January 8, 2016.
- 53. World of Longplays. PSX Longplay [055] Battle Arena Toshinden 3. 2011; https://www.youtube.com/watch?v=rRByoE2Avpw</u>. Accessed January 8, 2016.
- 54. Sapieha C. Battlefield: Bad Comany 2. 2010; <u>https://www.commonsensemedia.org/game-reviews/battlefield-bad-</u> <u>company-2</u>. Accessed June 20, 2015.
- 55. Gamer's Little Playground. Bioshock game movie (All cutscenes) PC Ultra 1080p HD. 2014; <u>https://www.youtube.com/watch?v=GBPeLTeSMaw</u>. Accessed April 28, 2015.
- 56. Molina B. Borderlands. n.d; <u>https://www.commonsensemedia.org/game-reviews/borderlands</u>. Accessed January 9, 2016.
- 57. SinRoth52. {PS1 Longplay] Bugs Bunny Lost In Time Part 1 of 7. 2011; https://www.youtube.com/watch?v=Ftm1yTuzS8&list=PLqDlE4DERSR1aNOl64BpQ-n3GjgzQ6pfl. Accessed January 8, 2016.
- 58. Sapieha C. Call of duty: Modern warfare 3. 2015; <u>https://www.commonsensemedia.org/game-reviews/call-of-duty-modern-warfare-3</u>. Accessed June 22, 2015.
- 59. StubbornAtom. Captain Claw combined cutscenes. 2012; https://www.youtube.com/watch?v=szAHRKiB0Ig. Accessed June 22, 2015.
- 60. Sapieha C. Sid Meier's Civilization V. 2010; <u>https://www.commonsensemedia.org/game-reviews/sid-meiers-</u> <u>civilization-v</u>. Accessed January 9, 2016.
- 61. Morris C. Clash of clans. 2014; <u>https://www.commonsensemedia.org/app-reviews/clash-of-clans</u>. Accessed January 9, 2016.
- 62. Counter-Strike Wiki Community. Counter-Strike: Global Offensive. 2015; http://counterstrike.wikia.com/wiki/Counter-Strike: Global Offensive. Accessed January 10, 2016.
- 63. Sapieha C. Dark Souls. 2011; <u>https://www.commonsensemedia.org/game-reviews/dark-souls</u>. Accessed January 10, 2016.
- 64. Rorie M. Dead or Alive 4 Walkthrough. 2006; <u>http://www.gamespot.com/articles/dead-or-alive-4-walkthrough/1100-6142341/</u>. Accessed January 10, 2016.
- 65. Sapieha C. Dead Island. 2011; <u>https://www.commonsensemedia.org/game-reviews/dead-island</u>. Accessed January 11, 2016.
- 66. Tetra Ninja. Dead Island: Walkthrough Part 10 [Chapter 2] Family Matters Let's Play (Gameplay & Commentary). 2011; <u>https://www.youtube.com/watch?v=nQS_u16SavA</u>. Accessed August 15, 2015.

- 67. Defense of the Ancients Wiki Community. Defense of the Ancients. 2015; http://dota.wikia.com/wiki/Defense of the Ancients. Accessed January 11, 2016.
- 68. Sapieha C. Destiny. n.d.; <u>https://www.commonsensemedia.org/game-reviews/destiny</u>. Accessed January 11, 2016.
- 69. Saltzman M. Devil May Cry 4. 2008; <u>https://www.commonsensemedia.org/game-reviews/devil-may-cry-4</u>. Accessed January 15, 2016.
- casualgamerreed. Devil May Cry 4 Walkthrough Complete Game Movie. 2013; <u>https://www.youtube.com/watch?v=XnjE2OV hhl</u>. Accessed January 12, 2016.
- 71. Harris BJ, Harris B. Console Wars: Sega Vs Nintendo-and the Battle that Defined a Generation. Atlantic Books Ltd; 2014.
- 72. Kushner D. *Masters of Doom: How two guys created an empire and transformed pop culture.* Random House Incorporated; 2004.
- 73. Saltzman M. Dragon Age: Origins. 2009; <u>https://www.commonsensemedia.org/game-reviews/dragon-age-origins</u>. Accessed January 11, 2016.
- 74. kirtanloorii. Dragon Quest 8 Movie. 2015; <u>https://www.youtube.com/watch?</u> <u>v=SqVsPvJOmdI</u>. Accessed January 11, 2016.
- Total Speed Gaming. Duck Hunt NES. 2007; <u>https://www.youtube.com/watch?v=x-daxzVxrQI</u>. Accessed January 11, 2016.
- bahamut2k456. Duke Nukem Forever Playthrough Part 1 of 5 1080p no commentary. 2011; <u>https://www.youtube.com/watch?v=ZIq0m_d505k</u>. Accessed June 22, 2015.
- 77. Sapieha C. Duke Nukem Forever. 2015; <u>https://www.commonsensemedia.org/game-reviews/duke-nukem-forever</u>. Accessed June 22, 2015.
- 78. Weiner J. Where do dwarf eating carp come from? *The New York Times Magazine.* July 21, 2011, 2011.
- 79. Iwant. Eastern Mind: The Lost Souls of Tong Nou / Tong-Nou () Macintosh, Windows (1994). 2014; <u>http://www.hardcoregaming101.net/chuteng/chuteng.htm</u>. Accessed January 11, 2016.
- 80. azuritereaction. Eastern Mind: Lost Souls of Tong-Nou Having a Heart Attack - (Part 2). 2010; <u>https://www.youtube.com/watch?v=te-HrgU9zFw</u>. Accessed January 15, 2016.
- 81. Talyor KR. Elsword Review. 2012; <u>http://www.gamecritics.com/kristin-renee-taylor/elsword-review</u>. Accessed January 12, 2016.
- MMOhuts. Elsword Online Gameplay First Look HD. 2011; <u>https://www.youtube.com/watch?v=zBx9DrwHU1k</u>. Accessed January 12, 2016.
- 83. ZTRCTGuy. Skyrim The Story of the Dragonborn. 2012; <u>https://www.youtube.com/watch?v=te-HrgU9zFw</u>. Accessed January 15, 2016.

- 84. Sapieha C. The Elder Scrolls V: Skyrim. n.d.; https://www.commonsensemedia.org/game-reviews/the-elder-scrolls-vskyrim. Accessed January 15, 2016.
- 85. Damon dj productions. Fallout 3 movie. 2015; https://www.youtube.com/watch?v=h5xglc_Lbv0</u>. Accessed 2015, 2015.
- 86. Saltzman M. Fallout III. 2008; <u>https://www.commonsensemedia.org/game-reviews/fallout-3</u>. Accessed january 15, 2016.
- 87. Gameatics. Far Cry 3- game movie. 2013; <u>https://www.youtube.com/watch?</u> <u>v=s9HpeLxCl9w</u>. Accessed July 29, 2015.
- 88. Saltzman M. Far Cry 3. 2012; <u>https://www.commonsensemedia.org/game-reviews/far-cry-3</u>. Accessed January 15, 2016.
- 89. CGRundertow. CGRundertow Fire Emblem: shadow dragon for Nintendo DS Video Game Review. 2011; <u>https://www.youtube.com/watch?</u> <u>v=i1gGwTLecM8</u>. Accessed January 15, 2016.
- 90. MMOHuts. Fly For Fun FlyFF Gameplay First Look HD. 2009; <u>https://www.youtube.com/watch?v=z9VNcSwIWjM</u>. Accessed January 16, 2016.
- 91. Koh C. Fly for Fun (Flyff). 2005; <u>https://www.commonsensemedia.org/game-reviews/flyff-fly-for-fun</u>. Accessed January 15, 2016.
- 92. IMBd Wiki Community. Parents guide to Final fantasy VII. 2013; <u>http://www.imdb.com/title/tt0208155/parentalguide</u>. Accessed August 8, 2015.
- PalmSmash. Final Fantasy VII Gameplay (PC/HD). 2012; <u>https://www.youtube.com/watch?v=jpZ47ppAGf0</u>. Accessed January 15, 2016.
- 94. Saltzman M. Gears of War 3. 2011; https://www.commonsensemedia.org/game-reviews/gears-of-war-3. Accessed January 15, 2016.
- 95. stepultura. Gears of War 3 [Game Movie]. 2012; <u>https://www.youtube.com/watch?v=5emyyKG4BVM</u>. Accessed January 15, 2016.
- 96. TheYooj. Goat simulator: Bacon cigarettes. 2014; https://www.youtube.com/watch?v=uPZCd1Pr-CY</u>. Accessed June 22, 2015.
- 97. Morris C. Goat Simulator. 2014; <u>https://www.commonsensemedia.org/app-reviews/goat-simulator</u>. Accessed January 15, 2016.
- 98. Sapieha C. Golden Sun: Dark Deawn. 2010; <u>https://www.commonsensemedia.org/game-reviews/golden-sun-dark-dawn</u>. Accessed January 15, 2016.
- 99. Mikey's Walkthroughs. Golden Sun: Dark Dawn Walkthrough Part 1: Intro[1/2]. 2010; <u>https://www.youtube.com/watch?v=C6mOEFyZCRU</u>. Accessed January 15, 2016.
- Mikey's Walkthroughs. Golden Sun: Dark Dawn Walkthrough Part 55: Final Boss. 2011; <u>https://www.youtube.com/watch?v=h-oy820PfN4</u>. Accessed January 11, 2016.

- 101. MMOhuts. Grand Chase Gameplay First Look HD. 2010; <u>https://www.youtube.com/watch?v=jEL4_y9TkBA</u>. Accessed January 15, 2016.
- 102. IMDb Wiki Community. Parents guide to the Godfather. 2013; <u>http://www.imdb.com/title/tt0442674/parentalguide?ref =tt ql 7</u>. Accessed August 10, 2015.
- 103. Lazenby A. Godfather: The game. 2010; https://www.commonsensemedia.org/game-reviews/the-godfather-thegame. Accessed July 11, 2015.
- 104. UPlayNetwork. The Godfather full movie all cutscenes cinematic. 2014; https://www.youtube.com/watch?v=rt-r-w7Z2Ag. Accessed july 3, 2015.
- 105. Gamer's Little Playground. Grand Theft Auto V (GTA 5) Story All Cutscenes Game Movie HD w/ Gameplay. 2013; <u>https://www.youtube.com/watch?</u> <u>v=F9tni2Z-TOw</u>. Accessed August 1, 2015.
- 106. IMBd Wiki Community. Parents guide to Grand theft auto V. 2015; http://www.imdb.com/title/tt2103188/parentalguide?ref =tt ql 7. Accessed August 5, 2015.
- 107. Kushner D. *Jacked: The outlaw story of Grand Theft Auto.* Hoboken, New Jersey: John Wiley and Sons; 2012.
- 108. MMOhuts. Guild Wars 2 Gameplay First Look HD. 2012; <u>https://www.youtube.com/watch?v=dtopEsHspCk</u>. Accessed January 16, 2016.
- 109. Koh C. Guild Wars 2. 2012; <u>https://www.commonsensemedia.org/game-reviews/guild-wars-2</u>. Accessed January 15, 2016.
- 110. Bolloxed Gaming. Half life: the movie. 2015; <u>https://www.youtube.com/watch?v=NRt_GiaY108</u>. Accessed January 15, 2016.
- 111. IMBd Wiki Community. Parents guide for Half-life. 2015; <u>http://www.imdb.com/title/tt0239023/parentalguide?ref =tt_stry_pg</u>. Accessed January 15, 2016.
- 112. Gamer's Little Playground. Halo: Master chief collection game Mmovie (Aall cutscenes) 60FPS 1080p HD. 2014; <u>https://www.youtube.com/watch?</u>
 <u>v=RL50p_0v1BU</u>. Accessed July 3, 2015.
- 113. Saltzman M. Halo: the master chief collection. 2014; <u>https://www.commonsensemedia.org/search/halo</u>. Accessed January 15, 2016.
- 114. IMBd Wiki Community. Parents guide to Halo:the master chief collection.
 2014; <u>http://www.imdb.com/title/tt4066088/parentalguide?ref =tt ql 7</u>. Accessed August 8, 2015.
- 115. Tobygames. Let's Play Happy Wheels I'M DEAD Part 1. 2012; <u>https://www.youtube.com/watch?v=ZrHcwWMhCe8</u>. Accessed January 15, 2016.
- 116. TobyGames. Happy Wheels GOD DANGIT Part 2. 2012; https://www.youtube.com/watch?v=44uKXD1JRDo. Accessed January 15, 2016.

- 117. Tree Hugger. Infamous Walkthrough (Complete Game). 2012; <u>https://www.youtube.com/watch?v=1PpbrK_fWm4</u>. Accessed January 16, 2016.
- 118. Saltzman M. inFamous. 2009; <u>https://www.commonsensemedia.org/game-reviews/infamous</u>. Accessed January 15, 2016.
- Little Gamers Playground. Heavy rain game movie (all cutscenes) 1080p HD.
 2014; <u>https://www.youtube.com/watch?v=63Pi_6Fmc-0</u>. Accessed June 23, 2015.
- 120. Saltzman M. Heavy rain. 2010; <u>https://www.commonsensemedia.org/game-reviews/heavy-rain</u>. Accessed June 23, 2015.
- 121. IMDb Wiki Community. Parents guide Injustice the Gods among us. 2015; http://www.imdb.com/title/tt2182384/parentalguide?ref =tt ql 7. Accessed August 10, 2015.
- 122. InjusticeGame. Injustice: Gods Among Us Lobo. 2013; https://www.youtube.com/watch?v=RFwC8dV2l1Y</u>. Accessed June 23, 2015.
- 123. JoshimusPrimeGaming. Injustice Gods among us ultimate edition: Superman VS Lobo. 2014; <u>https://www.youtube.com/watch?v=wSPdoCEKpso</u>. Accessed August 1, 2015.
- 124. Sima Movies. James Bond 007: Blood Stone (Game Movie). 2013; <u>https://www.youtube.com/watch?v=gKEmdOsKcFo</u>. Accessed January 15, 2016.
- 125. Lafferty M. James Bond 007: Bloodstone. 2010; https://www.commonsensemedia.org/game-reviews/james-bond-007blood-stone. Accessed January 15, 2016.
- 126. Gamer's Little Playground. Kingdom Hearts Game Movie (All Cutscenes) HD 1.5 Remix 1080p. 2015; <u>https://www.youtube.com/watch?v=8nZKnQ85G0Q</u>. Accessed January 15, 2016.
- 127. Footoferret. A brief history of Kirby. 2014; <u>https://www.youtube.com/watch?</u> <u>v=ZJPAKk2gCUo</u>. Accessed September 16, 2015.
- 128. Koh C. League of legends. 2009; https://www.commonsensemedia.org/game-reviews/league-of-legends. Accessed June 23, 2015.
- 129. League of Legends. League of Legends Cinematic: A New Dawn. 2014; https://www.youtube.com/watch?v=vzHrjOMfHPY. Accessed August 1, 2015.
- 130. IMBd Wiki Community. Parents guide to Left 4 dead. 2015; <u>http://www.imdb.com/title/tt1323932/parentalguide?ref =tt ql 7</u>. Accessed August 10, 2015.
- Left4Dead Wiki Community. William "Bill" Overbeck. 2015; <u>http://left4dead.wikia.com/wiki/William %22Bill%22 Overbeck</u>. Accessed June 23, 2015.
- 132. MMendozaProductions. Left 4 dead: The movie. 2013; https://www.youtube.com/watch?v=Ibr-PwIhLJA. Accessed June 23, 2015.
- 133. IsaacCaelum. The Legend of Dragoon ALL Cutscenes. 2013; <u>https://www.youtube.com/watch?v=XV0661Gg7hw</u>. Accessed January 15, 2016.

- JHNingamer. The Legend of Zelda: Ocarina of Time All Cutscenes HD 720p. 2014; <u>https://www.youtube.com/watch?v=FX8YkcOeOfQ</u>. Accessed January 16, 2016.
- 135. IMBd Wiki Community. The Legend of Zelda: Ocarina of Time Parents Guilde. <u>http://www.imdb.com/title/tt0184666/parentalguide?ref =tt ql 7</u>. Accessed Janaury 15, 2016.
- 136. Duck360Gaming2. Little Big Planet 3 MOVIE (All Cutscenes and In-Game conversations). 2014; <u>https://www.youtube.com/watch?v=jqoZCqBP5-s</u>. Accessed January 15, 2016.
- 137. Saltzman M. Mabinogi. 2008; <u>https://www.commonsensemedia.org/game-reviews/mabinogi</u>. Accessed January 16, 2016.
- 138. Saltzman M. Madden NFL 11. 2010; <u>https://www.commonsensemedia.org/game-reviews/madden-nfl-12</u>. Accessed January 15, 2016.
- 139. Koh C. Maplestory. 2005; <u>https://www.commonsensemedia.org/game-reviews/maplestory</u>. Accessed January 15, 2016.
- UltimatePisman. All Mario Kart Courses Mario Kart 7: All Cups on 150cc.
 2012; <u>https://www.youtube.com/watch?v=BlGSuNn-9RM</u>. Accessed January 16, 2016.
- 141. Healy C. Mario Cart 11. 2011; <u>https://www.commonsensemedia.org/game-reviews/mario-kart-7</u>. Accessed January 16, 2016.
- 142. IMBd Wiki Community. Parents guide to Mass Effect III. 2015; <u>http://www.imdb.com/title/tt1839558/parentalguide?ref =tt ql 7</u>. Accessed August 10, 2015.
- 143. MedyGames. Mass Effect 3 Extended cut movie [7 hrs] Part 1 of 2 FULL HD. 2013; <u>https://www.youtube.com/watch?v=70VBPg3PSBw</u>. Accessed August 2, 2015.
- 144. Sapieha C. Minecraft. 2011; <u>https://www.commonsensemedia.org/game-reviews/minecraft</u>. Accessed January 16, 2016.
- 145. Gameatics. Medal of honor (2010) Game movie. 2012; https://www.youtube.com/watch?v=PmorXVES68Q. Accessed June 23, 2015.
- 146. IMBd Wiki Community. Parents guide to Medal of Honor. 2014; http://www.imdb.com/title/tt1754190/parentalguide?ref =tt ql 7. Accessed August 10, 2015.
- 147. IMBd Wiki Community. Parents guide to Metal gear solid 4: Guns of the patriots. 2012; <u>http://www.imdb.com/title/tt0462423/parentalguide?</u> ref =tt ql 7. Accessed August 10, 2015.
- 148. RandomBlackGamer. Metal gear solid 4 All cutscenes/ The movie [2k HD Remastered]. 2013; <u>https://www.youtube.com/watch?v=5AhGj4oisfU</u>. Accessed June 23, 2015.
- 149. Sapieha C. Metal gear solid 4: Guns of the patriots. 2015; https://www.commonsensemedia.org/game-reviews/metal-gear-solid-4guns-of-the-patriots. Accessed June 23, 2015.
- 150. ImBd Wiki Community. Metroid Prime Parent Advisory. 2016; <u>http://www.imdb.com/title/tt0319854/parentalguide?ref =tt stry pg</u>. Accessed January 17, 2016.

- Little Gamers Playground. Mortal kombat game movie (All cutscenes) 1080p. 2014; <u>https://www.youtube.com/watch?v=I9js1YYmyHU</u>. Accessed june 23, 2015, 2015.
- 152. TmarTn2. NBA Live 15 Part 1 Welcome! (Playstation 4 Gameplay). 2014; <u>https://www.youtube.com/watch?v=uF-EM-RNlqw</u>. Accessed January 16, 2016.
- 153. WatcherOfThe2000s. Neopets Retrospective (Part 1: Pets, Economy, and Games). 2014; <u>https://www.youtube.com/watch?v=QJdwTZsMPEA</u>. Accessed January 17, 2016.
- 154. Kushner D. The neopets addiction. *Wired.* 2005;13(12). http://www.wired.com/2005/12/neopets/. Accessed January 15, 2016.
- 155. MMOBomb. Neverwinter Gameplay First Look HD. 2013; <u>https://www.youtube.com/watch?v=e5dsZhLHPeQ</u>. Accessed January 15, 2016.
- 156. PeanutButterGamer. Nintendogs + Cats PBG. 2014; <u>https://www.youtube.com/watch?v=UJ9hpTTeB7c</u>. Accessed January 15, 2016.
- 157. Gudmundsen J. Nintendogs. 2005; <u>https://www.commonsensemedia.org/game-reviews/nintendogs</u>. Accessed January 15, 2016.
- 158. Andrei Dmny. Operation Flashpoint: Red River | Mission 2 Meet the neighbors Part 1. 2011; <u>https://www.youtube.com/watch?</u> <u>v=D62YCHbY4u4</u>. Accessed January 16, 2016.
- 159. Saltzman M. Operation Flashpoint: red river. 2011; <u>https://www.commonsensemedia.org/game-reviews/operation-flashpoint-red-river</u>. Accessed January 16, 2016.
- 160. ObscureNForeign. Orly's Draw-a-Story (Part 1). 2014; <u>https://www.youtube.com/watch?v=ODyH5bI6Ns4</u>. Accessed January 15, 2016.
- 161. Yic17 Gaming. Persona 4 movie (cutscenes & story) part 1 (intro). 2013; https://www.youtube.com/watch?v=IpZGkgBLvSc</u>. Accessed August 5, 2015.
- 162. Goldberg H. Shin Megami Tensei; Persona 4. 2008; <u>https://www.commonsensemedia.org/game-reviews/shin-megami-tensei-persona-4</u>. Accessed June 24, 2015.
- 163. Bell E. Phoenix Wright: Ace Attorney: Trials and Tribulations. 2007; https://www.commonsensemedia.org/game-reviews/phoenix-wright-aceattorney-trials-and-tribulations. Accessed January 12, 2016.
- 164. NicoB. BACK THEN Let's Play Phoenix Wright: Trials and Tribulations 1 -Walkthrough Playthrough. 2015; <u>https://www.youtube.com/watch?</u> <u>v=Y5xHP7uktzQ</u>. Accessed January 11, 2016.
- 165. Kent S. The Ultimate History of Video Games: from Pong to Pokemon and Beyond... The story behind the craze that touched our lives and changed the world. New York: Three Rivers Press; 2010.
- 166. Anticult100. Postal2 complete (Steam version) full gameplay. 2014; https://www.youtube.com/watch?v=4hqkqbPlvds</u>. Accessed Augst 5, 2015.

- 167. I am Wildcat. WHO SH*T IN THE SINK!? Postal 2 Funny Moments Ep. 1 -Gary Coleman, Bank Robbery, and Cats! 2015; <u>https://www.youtube.com/watch?v=ElzdQv9pD I</u>. Accessed August 5, 2015.
- 168. Saxcat20 Let's Plays. Let's Play Professor Layton and the Curious Village (DS) Part 1 - Puzzlemania. 2013; <u>https://www.youtube.com/watch?</u> <u>v=xs7WVMtBNPs</u>. Accessed January 10, 2016.
- 169. TheDepressedTurtle. Red Dead Redemption: The Movie. 2012; https://www.youtube.com/watch?v=yToLaoKJd9k. Accessed June 29, 2015.
- 170. IMBd Wiki Community. Parents guide to Red dead redemption. 2015; <u>http://www.imdb.com/title/tt1479962/parentalguide?ref =tt ql 7</u>. Accessed August 10, 2015.
- 171. Red Dead Wiki Community. John Marston. 2015; http://reddead.wikia.com/wiki/John Marston</u>. Accessed June 29, 2015.
- 172. Sapieha C. Red Dead Redemption. 2010; https://www.commonsensemedia.org/game-reviews/red-dead-redemption. Accessed June 29, 2015.
- 173. Giant Bomb. Quick Look: Red Steel 2. 2011; <u>https://www.youtube.com/watch?v=cxT7Pp4cUA0</u>. Accessed January 15, 2016.
- 174. Sapieha C. Red Steel 2. 2010; <u>https://www.commonsensemedia.org/game-reviews/red-steel-2</u>. Accessed January 12, 2016.
- 175. bloodfanRKO. Resident evil 6 all cut-scenes Chris Redfield (HD 720p). 2012; https://www.youtube.com/watch?v=VksM5TL7J4g. Accessed June 29, 2015.
- 176. Saltzman M. Resident Evil 6. 2012; https://www.commonsensemedia.org/game-reviews/resident-evil-6. Accessed January 15, 2016.
- 177. Lafferty M. Rift. 2011; <u>https://www.commonsensemedia.org/game-reviews/rift</u>. Accessed January 15, 2016.
- 178. Sambonz. Let's Play Rift Part 1 And So It Begins. 2011; <u>https://www.youtube.com/watch?v=xAUrI21p8A4</u>. Accessed January 10, 2016.
- 179. Armour Polly J. Runescape. 2005; https://www.commonsensemedia.org/website-reviews/runescape. Accessed January 12, 2016.
- 180. Guest T. Second lives. Random House; 2010.
- 181. Coon C. Second Life. 2011; <u>https://www.commonsensemedia.org/website-reviews/second-life</u>. Accessed January 21, 2016.
- 182. Bell E. The Sims 3. 2009; <u>https://www.commonsensemedia.org/game-reviews/the-sims-3</u>. Accessed January 21, 2016.
- 183. Harris BJ. Console Wars: Sega Vs Nintendo-and the Battle that Defined a Generation. Atlantic Books Ltd; 2014.
- 184. Temple of the Azure Flame. Spyro 3: Year Of The Dragon (100% Longplay).
 2015; <u>https://www.youtube.com/watch?v=2T4h5sUdd34</u>. Accessed January 16, 2016.

- 185. Chrop Nintend. Star Fox 64: All Bosses. 2011; <u>https://www.youtube.com/watch?v=0uBm2QeO9mM</u>. Accessed Janaury 10, 2016.
- 186. Taylor C. How Star Wars Conquered the Universe: The Past, Present, and Future of a Multibillion Dollar Franchise. Basic Books; 2014.
- 187. World of Longplays. Arcade Longplay [373] Street Fighter III: 3rd Strike. 2013; <u>https://www.youtube.com/watch?v=Vz4d2Gl3NbM</u>. Accessed January 12, 2016.
- 188. Morris C. Happy 30th birthday, 'Super Mario Bros.'! 2015; https://www.yahoo.com/tech/s/happy-birthday-super-mario-181332681.html?nf=1. Accessed September 21, 2015.
- 189. Partin W. Mario, Everyman. *The Atlantic.* 2015. <u>http://www.theatlantic.com/entertainment/archive/2015/09/we-are-all-mario/403636/</u>. Accessed September 21,2015.
- 190. ProsafiaGaming. Super Smash Bros. Brawl All Bosses (No Damage) + Cutscenes. 2015; <u>https://www.youtube.com/watch?v=Q7rRIVMhFvg</u>. Accessed January 15, 2016.
- 191. Missy_Red. Team Fortress 2 Meet Them All. 2012; <u>https://www.youtube.com/watch?v=l620Y19rZ7k</u>. Accessed January 28, 2016.
- 192. IMdb Wiki Community. Parents guide to Team fortress 2. 2015; http://www.imdb.com/title/tt1210335/parentalguide?ref =tt ql 7. Accessed August 10, 2015.
- 193. Nereid. [Touhou] Undefined Fantastic Object Lunatic 1cc (ReimuA). 2010; <u>https://www.youtube.com/watch?v=4H2eVxy5keM</u>. Accessed January 15, 2016.
- 194. Sima Movies. Uncharted 2: Among Thieves (Game Movie). 2012; <u>https://www.youtube.com/watch?v=ABrNI cJ3c0</u>. Accessed January 15, 2016.
- 195. Saltzman M. Uncharted 2. 2009; https://www.commonsensemedia.org/game-reviews/uncharted-2-amongthieves. Accessed January 21, 2016.
- 196. SenpaiAus. All Warcraft 3 Cutscenes and Cinematics Pre WoW. 2011; https://www.youtube.com/watch?v=IIz4lgxlLHw</u>. Accessed January 12, 2016.
- 197. Gamer's Little Playground. The wolf among us full season 1 all cutscenes game movie. 2014; <u>https://www.youtube.com/watch?v=DLq7-EZCtrY</u>. Accessed July 3, 2015.
- 198. IMDb Wiki Community. Parents guide to the Wolf among us. 2014; http://www.imdb.com/title/tt3186880/parentalguide?ref =tt ql 7. Accessed August 10, 2015.
- 199. Sapieha C. The wolf among us. 2014; https://www.commonsensemedia.org/game-reviews/the-wolf-among-usseason-one. Accessed July 3, 2015.
- 200. Nardi B. *My life as a night elf priest: An anthropological account of World of Warcraft.* Ann Arbor: University of Michigan Press; 2010.