Violence in Video Games

Alex Jarvis
UMM Student
600 E 4th Street
UMM #600, Morris Minnesota, 56267
(320)589-6607, USA
jarv0063@mrs.umn.edu

Aaron Carlson
UMM Student
600 E 4th Street
UMM #224, Morris Minnesota, 56267
(320)589-6619, USA
carl1081@mrs.umn.edu

ABSTRACT
In this paper, we examine the implication of violence in video games, the possible effects of video game violence on the development of children and adolescents, the views of "gamers" on the issue of violence, and the legal issues associated with the regulation of video game content and distribution.

1. INTRODUCTION
Little did Steve Russell know that he would be at the forefront of one of America's largest industries when he created the very first computer game, Space Wars, on a multi-million dollar PDP1 mainframe in the basement of MIT. Computers and televisions have come a long way since the early days of the so-called "digital era" and video based entertainment has never been far behind. The video gaming industry is one of the largest grossing industries in the United States, with estimated net revenues of $30 billion in 1998 and a steady growth rate each year. This effectively makes computer game production more lucrative and influential than the Motion Picture industry. However, with the rise of this new form of entertainment there have been growing concerns among parents that the playing of such games and "interactive movies" is having a negative effect on the development of the children, who are expected according to studies to spend an average of eight hours a week playing them.

2. RESEARCH
While research into the effects of gaming violence is still in its infancy, a number of researchers have published their findings on the issue. A primary focus of such research is to uncover increases in aggressive behavior, racism and/or sexism, violent thoughts, criminal activity and desensitization to brutality as a result of playing increasingly realistic games that feature and often promote these activities.

2.1. General findings
In a study conducted by the Simon Fraser University in British Columbia, which set out to discover why game play was so compelling to teenagers, the following was reported:

- 95 percent of the 650 adolescents studied (351 male, 295 female) said that they had access to some form of video gaming system, and 80 percent said that they owned their own system and at least one game.
- While there was no difference in the percentage of boys that owned a gaming system when compared to girls, it was found that boys were more likely to own more than one system and also have access to a computer.
- "Heavy" game players owned an average of 23 games and played them more frequently than "light" players, who only owned 17 games on average.
- There was a strong tendency to play with their siblings and friends where possible, but usually not with the parents. "Heavy" players also often stated that the vast majority of their friendships were based around a network of gamers and that game playing was their favorite solitary activity.
- 80 percent of the surveyed adolescents said that they found gaming to produce a pleasant, exiting, challenging, and interesting experience. However, males were more likely to associate positive emotions with gaming, such as "pleasing," "exciting," "involving." Females tended to associate more negative emotions with gaming: "boring," "stressful" and "frustrating."
- "Heavy" players tended to prefer more action and fighting games (61 percent of "heavy" players), compared to "light" players who tended to prefer educational, sports and puzzle based titles.
- Realism (graphics, sound effects, characters) was unanimously voted the most important element of a "good" game, by over 75 percent of the participants. Unpredictability (75 percent of respondents), excitement (73 percent), good weapons (72 percent), and an interesting story (67 percent) were also listed as highly important to making a "good" game.

2.2. Negative effects
Studies conducted by the National Institute on Media and the Family, the American Psychological Association, the American Academy of Pediatrics, and the American Medical Association have uncovered some of the negative effects that game playing can have, particularly on vulnerable or especially impressionable children. Some of the concerns addressed were connected to that fact that because there has been a direct correlation established between the viewing of violent acts in television/movies and feelings of aggression in children, simulated violence that can actually be participated in would have even higher potential for causing harm for four main reasons:

- Children are far more likely to model their actions after characters with whom they can identify. Most

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games featuring graphic violence place the player in the position of the shooter or perpetrator of that violence, thus creating an association between the aggressor in the game and the player controlling the action.

- Unlike television, which is primarily a passive activity, video games allow for active participation. This participation can foster the false impression that the acts being conveyed are acceptable since they were included in the game.
- It is well documented that learning centers on repetition of information and activities. Video games are highly repetitive and so may teach the player to be violent.
- People—particularly children—learn better and more willingly when there is some reward associated with their actions. Violent games give all manner of rewards to the player who is the most violent or aggressive, further encouraging those traits in the player as he/her tries to unlock new rewards.

In a meta-study conducted and published by Anderson & Bushman at Iowa State University, it was found that there are a number of serious and alarming tendencies associated with the playing of violent games:

- Violent games increase the heart rate, blood pressure, adrenaline and testosterone of the player. Throughout the course of play, the physiological state of the player is very similar to that of someone in a fight.
- In the short term, the playing of violent games increases the perception of hostility of the player towards his/her peers. The view that the world around them is more hostile results in more aggressive behavior in children and has been known to result in depression, negative self-perception, and social rejection.
- The aggressive emotions of the players were heightened. This was particularly true of "addicted" players who showed a high level of emotional unrest before, after, and during gaming sessions.
- The actions of players who played violent games tended to be more aggressive than those who did not. They were also more likely to be argumentative and get involved in physical fights at school. Even children not generally predisposed to aggressive actions were ten times more likely to get involved in a fight if they played a large number of aggressive games.
- Children with higher levels of exposure to violent media and gaming are typically more negative and see the world as a more dangerous place. They also become more desensitized to images of brutality and dismemberment than players of non-violent games.

2.3. Positive effects

Although the vast majority of research points to the negative elements of exposure to video games, there are some researchers who are finding benefits to gaming at large. While these studies were not focused on games that had violence as their primary theme, they point to some benefits to gaming as a general form of entertainment. At the "Harvard Conference on Video Games and Human Development," professors of the Harvard Graduate School of Education, along with social scientists, educators, medical specialists, and computer industry representatives, presented their research on the benefits of video gaming to children.

- Families that kept video gaming in perspective with other family activities felt that there was little to no impact on children's school performance, extra-curricular interests or homework routines. In fact, many such families stated that they enjoyed playing games together.
- In many cases the confidence level of children was raised when they managed to overcome a particular obstacle in the game they were playing. It was also found that children experienced a sense of power and control at overcoming the often chaotic situations presented by gaming and that the child's logical analysis and concentration were enhanced through constructive play.
- Video games used in a medical setting to help handicapped or rehabilitating patients resulted in more rapid skill development, improved social behavior and an increased sense of personal competence.

2.4. Research conclusions

There is still a great deal of research to be done into the effect of computer game related violence and aggression. Although the current body of research would seem to indicate that there are a number of ways in which gaming can make children more aggressive, and that the concerns about exposing children to these games is warranted as it can have a lasting affect on their development, the issue still hasn't been as thoroughly documented as the passive viewing of violence in television. However, these findings, along with incidents like the Columbine shooting and the sniper attacks in Washington—both of which were in some way linked to violent gaming—have begun to garner the attention of politicians who are likely to press for more research to assess the dangers posed by gaming and what can be done to prevent such tragedies from happening in the future.

3. GAMERS' OPINIONS

While research has focused on the observable negative affects of playing video games, and the media has loudly decried the ways in which the playing of violent games such as *Doom*, *Quake*, *Wolfenstein* and *Grand Theft Auto* can result in teenagers becoming classmate shooters, the gaming community itself has become increasingly vocal about its views on the issue of how the playing of violent games has influenced them.

The prevailing view of the gaming community is that video gaming is being portrayed unfairly in the media. While most game players agree that gaming can have negative effects on players, they feel that only those people who already have aggressive tendencies will become aggressive in an unacceptable fashion. For most gamers, a video game is viewed as a release from reality and the violent content is merely an outlet for the completely normal frustrations associated with life. Violent games are the modern equivalent of a punching bag—no one really gets physically hurt and it releases

tension. Gamers also argue that it is not the violence that interests them, and that indeed games like *Grand Theft Auto* sell because they have interesting stories associated with them. They are the equivalent of *Pulp Fiction* or *The Godfather* for the gaming world. Certainly, they are violent, but they are violent with a purpose. Furthermore, games that are simply violent without a story or reason associated with them don't sell. A prime example is the mob-violence based game *State of Emergency*, which saw horrible sales due (according to gaming buffs) to its lack of a good story.

Gamers also argue that although many of them play violent games frequently, they themselves are not killers, nor do they know any. They are also quick to ask the question that if video games were as effective at training actual marksmen as the media claims, then why doesn't the military save the millions of dollars spent every year on training new recruits with real weaponry and on real environments by handing new recruits a copy of *Unreal Championship*, give them a gun when they're done and send them into battle afterwards? No one who has mastered playing *Tiger Woods PGA Golf* would claim to be a master at the real thing, nor would champions on the *Counter-Strike* scene feel competent to stop military insurgences. To quote PC Gameworld editor Michael Bordelon:

"To say that a shooting game can train a marksman is the same as saying that since I am an excellent driver in NASCAR 2002 I could hop into a real racecar and operate it to perfection."

Gamers also point out that according to the FBI, violence has been going down every year since 1992, even while the gaming industry has grown from a $100 dollar million a year industry in 1985 to the $30 billion dollar industry it is today.

Finally, gamers also point out that although 80 percent of the "preferred" games today contain some degree of violent content, that there is still considerably more violence in primetime television than there is in the gaming industry. And with thousands of non-violent and indeed even educational titles available, claiming that all gaming is harmful is like saying that television offers no benefits whatsoever, regardless of the program being viewed. Both of these statements, gamers claim, are untrue and are misrepresentative of the facts.

4. LEGAL PROCEDURES

Since the increased concern over violent material, the probability of actual legislation restricting the availability of violent games has grown. However, as of this writing there has been no official bill passed into law that enforces any kind of standard to which companies must adhere regarding the content of their games. Several such bills have been drafted, but due to the right to free speech and free expression, all have been voted against thus far. There are, however, a number of companies that have been trying to restrict access to inappropriate materials. Also, the ESRB rating system has become standard across the country.

- The Entertainment Software Rating Board (ESRB) is a self-regulatory body established in 1994 by the Interactive Digital Software Association (IDSA). ESRB independently applies and enforces ratings, advertising guidelines, and online privacy principles adopted by the industry. To date, the ESRB had rated more than 8,000 titles submitted by 350 publishers.

  To get a rating, publishers send the ESRB actual footage of their game's most extreme content and fill out a detailed questionnaire explaining exactly what is in the game. Working individually, three trained raters then watch the game footage and recommend the rating and content descriptors they believe are most appropriate. ESRB then compares the recommendations to make sure there's no disagreement about which rating a game deserves. Usually, the raters agree and their recommendation becomes final. When the raters recommend different ratings, additional raters may review the game in order to reach agreement. Once a consensus is reached, content descriptors are added, and the game's publisher is notified of the ESRB's decision.

  When the game is ready for release, publishers send copies of the final product to the ESRB. The game packaging is reviewed to make sure the ratings are displayed in accordance with ESRB standards, and ESRB's in-house game experts play the game to verify that all the information provided during the rating process was accurate and complete.

  ESRB raters are typical consumers from all walks of life. To ensure objectivity, the raters selected by ESRB have no ties to the computer and video game industry. ESRB raters are not expert game players, although they undergo extensive training about the rating system before beginning work. To protect the integrity of the rating system, the ESRB does not disclose the individual identities of its raters.

  ESRB ratings have two parts. The rating symbol suggests what age group the game is appropriate for and provides general information about a game's content. If a game contains content elements that aren't suggested by the rating symbol, content descriptors are added that tell you what to expect.

- Retailers like GameStop (formerly known as Funcoland), Best Buy, Target, Walmart and the like have begun to institute company internal carding programs where games rated as MATURE or above by the ESRB are only sold to an ID carrying adult and games rated as TEEN are sold to minors (usually defined as twelve or younger in this case) only with verifiable parental consent. By instituting these programs, retailers are hoping to have some kind of impact on the accessibility of inappropriate content by minors, and thus assist parents in having some control over what their children can purchase and play.
- Rental chains are beginning to institute carding schemes very much akin to their retail counterparts to further reduce access to violent games.

5. CONCLUSION

As with the research surrounding it, the debate about violence in video games is still in its infancy, without a clear-cut solution in sight. While parents and politicians lobby for more control over what children can access, buy and play, the

gaming industry continues to grow at an unprecedented rate and gamers themselves are crying out for more acceptance of their preferred form of entertainment, claiming that it is being misrepresented in the media and misunderstood by the general populace. Clearly, there is still much research to be done and many facts to be established, and there will continue to be new battles fought and legislation passed, as the non-gaming generation struggles to understand the draw of the ever-evolving interactive world that is establishing itself around them and engaging the minds of their children.

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