Exploring insight of New Media Games and its impact on Children via Systematic literature Review

SunainaAsthana
Research Scholar,
Dept. of Journalism and Mass Communication
KhwajaMoinuudinChisti Language University
E Mail- asthana.sunaina@gmail.com
Dr. Tanu Dang,
Assistant Professor,
Dept. of Journalism and Mass Communication
Khwaja Moinuddin Chisti Language University, Lucknow

ABSTRACT:

New media games have ushered and have caused great disruption in the field of mobile entertainment industry. This domain has hit the children globally on multiple fronts. The gaming world has witness a changeover of 360 degrees since its inception. The childhood posts the 4G (April, 2012) and internet revolution on the digital front have shifted the hobby patterns of the children in India. The collective games of kabbadi, chain and kho-kho have been assiduously replaced with the new media games. Here the gamers need not be present physically, they can login from remote locations yet they all can play collectively. With the advent of the streaming new media platforms in Indian Society, combined with the concept of DISK (Double Income Single Kid), there has been a paradigm shift in the recreational activities of children. The availability, reach, and access of New Media games have rendered strong media effect on teenagers in precipitate and cumulative manner. Moreover, the pandemic along with its reoccurring variants in the form of waves has substantially ushered the internet gamers and their continuous engagements lap. Their engagement hours on the gaming portals have increased comparatively. The Increased exposure of the second screen has raised concerns about how it can impact the children in the form of passive learning impacting their social habits.

The paper is a decent attempt to systematically review the literature on various aspects of internet gaming. The study talks about debunking various myths related to the mysterious world of gaming.

KEY WORDS: Internet Games, Online Gaming, Behavioral impact of Gaming

1. NEW MEDIA GAMES

New media is another term for digital media the only difference here is that the later talks more about its storage techniques while the former talks about the democratization of content. Adaptation of the traditional gaming or real-life obstacles are electronically mediated to deliver a wow user-controlled experience. Democratization of games refers to the collective participation and duality of the internet gamers in terms of the creation, publishing, distribution and consumption of the new media gaming content. The games under the study are the new media games, which have the following features:

1.1 Features of New Media Games

1.1.1 On Demand Access: The games undertaken in the study considers the games which can be accessed on demand, and this requires internet connection. The study doesn't consider the downloadable games, which does not require internet for players to play.

1.1.2 Live Streaming Games: The live streaming of the internet games simply means that people will login on the real time basis and will project themselves as an active player. Initially such types of games were not popular. Till mid 2010(s), the players used to download or use a pre-installed gaming device.

1.1.3 Friendly GUI Design: One of the key features of popularity of such games amongst the children is their friendly GUI design aspect. Such games attract children because they are easy to use, play and score. The design and the front interface are too smooth for anyone to explore and navigate easily. Such games simply require one to register them and start playing.

1.1.4 Role-playing Opportunities: Many online games allow gamers to don an avatar of their choice. And the choice of the avatar corresponds to their cognitive skills. The avatars are in accordance with their intelligence, creativity, and mentalities. Such digital games are customized and enhances their cognitive skills which inculcates the problem-solving approach for regular gamers.

1.1.5 Remote Access: One need not to be physically present. Anyone and everywhere internet games can be played this means the gaming space blurs the geographical boundaries.

1.1.6 Anonymous: The players can choose to reveal their identities or can choose to remain anonymous. The players on the digital field can opt to stay with their original identities or can pose some pseudo name, fiddled age numbers and deliberate anonymity.

1.1.7 Interactive: Such games are based on the web 2.0 technical frameworks which extends its support to be of highly interactive, and participative in nature, which keeps the content and their avatars quite dynamic to absorb and reflect the current likes of the players on board.

1.1.8 Group Games: The best part about such games is that they encourage players to build and extend the digital gaming diaspora. MMORPG discussed above means such groups which are played in the virtual society. This simple means it allows multiple players on a single time, likewise children of the same family, social groups play these games together.

1.1.9Open Chat window: Such games have the feature of open communication channels which enables the users to chat 24*7 simultaneously. The chat window remains active the moment one logs in to the game.

1.1.10Affordable and accessible: The 4G streaming services, competitive acumen of the telecom industry (ISP) and the continuously growing smart phones market in India all in totality have contributed to the affordability and accessibility factor of digital games.

1.1.11 Sign Up offers: For more and more inclusion, the gaming software companies ensure to prey the lucrative offers along with the referral codes

1.1.12 24*7 Help: Owing to the global market and considering the dynamic GMT, the online gaming companies offer 24*7 customer support to cater to their players all over the world.

2. Types of Violent Video games

Based on the game play, interaction and category, video games are classified into various types. They are:

2.1 Fighting games: The vast majority of these games are one fighter versus another fighter. The draw here is the brutality of the fighting, and the learning of fighting moves. These games often take a considerable amount of playing in order to master all of the moves of a given fighter.

2.2 Action games: It is the most basic form of video gaming and also the most popular form. An action game is the one in which the player needs to use weapons, reflexes and special moves available in the game in order to beat the opponents so as to move ahead in the game. Action games are very popular as they are fun-packed and exciting. That being said, there are different types of action games. Fighting games, shooter games, maze games are some of the types of action games that are very popular among gamers.

2.3 Action-Adventure games: Action-Adventure games includes game play which make use of characteristics that are in commonplace with both the action genre and the adventure genre.

2.4 First Person Shooters: Many of the world's most successful and renowned video games have been introduced to the market under this genre. In this type of game, players are engaged in a rapid paced and quick-thinking gaming experience which also gives a close feeling of actually being in that situation. A shooter game is the one in which the player needs to use the weapons available in the game so as to kill the enemies. There are different types of shooter games. One of the most popular types of shooter game is the first-person shooter game. Third-person shooter, tactical shooter, light gun shooter is some of the other types of shooter games. In first-person shooter games like Doom, the player needs to kill the enemies with the help of the weapons that are available in the game. Recently, a lot of these games have taken historical spins, allowing the player to be a soldier in Vietnam or World War II. Examples of these games include Halo and Call of Duty.

2.5 Real-Time Strategy (RTS): The more famous and popular sub-genre of the two, RTS games deals with games where, the action is in a continuous mode and the decision and actions that the player makes has an impact then and there.

2.6 Strategy Games: Strategy games are aimed at bringing out a player's thinking and planning skills. In the strategy genre, there are two types, turn based strategy games and real-time strategy games.

2.7 Racing: These are simply games in which one player races one or more competitors. Racing games feature a variety of race types and courses. The attraction of these types of games is that every time one wins, one can make his vehicle better or unlock new cars and tracks. Examples of this type of game are Need for Speed and Mario Kart.

2.8 Survival Horror games (Satanic games): Survival horror games focus on fear and attempt to scare the player via traditional horror fiction elements such as atmospherics, death, the undead, blood and

gore. One crucial game play element in many of these games is the low quantity of ammunition, or number of breakable melee weapons.

2.9 Vehicle Simulation Games: Vehicle simulation games allow the player to engage in play which provides the use of and control of a vehicle. The more popular vehicle simulation games include racing.

3 Explanations for Short term and long-term Media Violence Effects (Anderson, 2009) Short-term Effects:

Most theorists would now agree that the short-term effects of exposure to media violence are mostly due to 1) priming processes, 2) arousal processes, and 3) the immediate mimicking of specific behaviors.

3.1 Arousal—To the extent that mass media presentations arouse the observer, aggressive behavior may also become more likely in the short run for two possible reasons – excitation transfer and general arousal. First, a subsequent stimulus that arouses an emotion (e.g., a provocation arousing anger) may be perceived as more severe than it is because some of the emotional response stimulated by the media presentation is miss-attributed as due to the provocation transfer. For example, immediately following an exciting media presentation, such excitation transfer could cause more aggressive responses to provocation.

3.2 Mimicry—The third short term process, imitation of specific behaviors, can be viewed as a special case of the more general long-term process of observational learning. In recent years, evidence has accumulated that human and primate young have an innate tendency to mimic whomever they observe. The neurological process through which this happens is not completely understood, but it seems likely that "mirror neurons," which fire when either a behavior is observed or when the same behavior is acted out, play an important role (Anderson, 2009).

3.3 Priming—Priming is the process in which an external observed stimulus excites another brain node representing a cognition, emotion, or behavior. The external stimulus can be inherently linked to cognition, e.g., the sight of a gun is inherently linked to the concept of aggression, or the external stimulus can be something inherently neutral that has become linked in the past to certain beliefs or behaviors (e.g., welfare). The primed concepts make

behaviors linked to them more likely. When media violence primes aggressive concepts, aggression is more likely.

4 Long-term Effects

Long term content effects, on the other hand, seem to be due to 1) more lasting observational learning of cognitions and behaviors (i.e., imitation of behaviors), and 2) activation and desensitization of emotional processes (Anderson, 2009).

4.1 Desensitization: Repeated exposures to emotionally activating media or video games can lead to habituation of certain natural emotional reactions. This process is called "desensitization." Negative emotions experienced automatically by viewers in response to a particular violent or gory scene decline in intensity after many exposures. For example, increased heart rates, perspiration, and self-reports of discomfort often accompany exposure to blood and gore. However, with repeated exposures, this negative emotional response habituates, and the child becomes "desensitized." The child can then think about and plan proactive aggressive acts without experiencing negative affect (Anderson, 2009).

4.2 Enactive learning: Observational learning and desensitization do not occur independently of other learning processes. Children are constantly being conditioned and reinforced to behave in certain ways, and this learning may occur during media interactions. For example, because players of violent video games are not just observers but also "active" participants in violent actions, and are generally reinforced for using violence to gain desired goals, the effects on stimulating long-term increases in violent behavior should be even greater for video games than for TV, movies, or internet displays of violence.

4.3 Observational learning: According to widely accepted social cognitive models, a person's social behavior is controlled to a great extent by the interplay of the current situation with the person's emotional state, their schemas about the world, their normative beliefs about what is appropriate, and the scripts for social behavior that they have learned. During early, middle, and late childhood children encode in memory social scripts to guide behavior through observation of family, peers, community, and mass media. Consequently, observed behaviors are imitated long after they are observed. During this period, children's social cognitive schemas about the world around them also are elaborated. For example, extensive observation of violence has been shown to bias children's world schemas toward attributing hostility to others' actions. Such attributions in turn increase the likelihood of children behaving aggressively. As children mature further, normative beliefs about what social behaviors are

appropriate become crystallized and begin to act as filters to limit inappropriate social behaviors. These normative beliefs are influenced in part by children's observation of the behaviors of those around them including those observed in the mass media.

5 NEW MEDIA/VIDEO GAMES

According to **Lev Manovich** (New Media Expert), new media is majorly computer related, which means the new media content depends on the computer devices for the content generation and distribution. The main pointers of new media are the high-end engagement, fast paced, interactive, virtual window, augmented reality, human-computer interface, multimedia, computer video games, flash and animation, digital video strips, 3,4,5 dimensional effects special audio and video effects in cinema and other entrainment section.

In the book *New Media, 1740–1915*, edited by **Lisa Gitelman and Geoffrey Pingree,** Media is referred to as a cultural process encompassing the transmission of information chunks encapsulated in the rites, rituals, customs and norms of the frame of reference of both senders and receivers which implies that the new media is the media of the new age which must reflect the recent social changes. In a way, Digital technology has actually changed the definition of leisure activities. The common players on the board are social media networks, blogs &vlogs (food, fashion, gaming, travelogue), chat rooms, on demand TV, OTT platforms, live streaming. All these have led to the series of that products and services that has given rise to infotainment (Information + Entertainment). The new media has opened vast vistas in the entertainment section and is expected to render huge transformations in the society.

According to "The Morals of Chess", Gottman (1986), it was shown how children utilized their play time in learning life skills in their routine lives. This was a new insight as when adults face some emotional problem, they discuss it with their friends, colleagues, family but when it comes to children, they either isolate themselves or they tend to find solutions via game matrices.

According to an empirical study by **Connolly & Doyle, (1984),** Children's predisposition to play is often linked with the attainment of several skill set such as cooperation, competitive skills, and peer acceptance.

A meta- analysis by **Uttal et al. (2013)** outcomes prove that the spatial ability acquired from playing the high-end commercial shooting games, in the long run stands on tough squares when compared to the traditional dedicated coaching methods designed for the development of same skills, which means that

games not only entertain us, but there is passive learning involved in it too. Moreover, such learning content are recorded and are reusable which increases its overall recall value.

Taking about the Avatar selected for Role playing or for picking up the character, **Anderson (2017)**, many studies reveal that the selection of avatar is based on selective perception of the gamer. There is close association between the avatar and the gamers personal likes and dislikes. Avatar is deemed to be one of the crucial drivers of the gaming zones, the outlook of the player (whether sporty, or military like), the skin of the gun, the shoes opted for and several other characters help the gamers establish their identity on the gaming battle ground. The customized avatar sets the identity and gives a personalized feel to the players in the game.

6 Myths about playing violent video games (Anderson, 2003)

Myth 6.1: Violent video game research has yielded very mixed results.

Facts: Some studies have yielded non-significant video game effects, just as some smoking studies failed to find a significant link to lung cancer. But when one combines all relevant empirical studies using meta-analytic techniques, five separate effects emerge with considerable consistency. Violent video games are significantly associated with: increased aggressive behavior, thoughts, and affect; increased physiological arousal; and decreased pro-social (helping) behavior.

Myth 6.2: The studies that find significant effects are the weakest methodologically.

Facts: Methodologically stronger studies have yielded the largest effects. Thus, earlier effect size estimates based on all video game studies probably underestimate the actual effect sizes.

Myth 6.3: Laboratory experiments are irrelevant (trivial measures, demand characteristics, lack external validity).

Facts: Arguments against laboratory experiments in behavioral sciences have been successfully debunked many times by numerous researchers over the years. Specific examinations of such issues in the aggression domain have consistently found evidence of high external validity. For example, variables known to influence real world aggression and violence have the same effects on laboratory measures of aggression

Myth 6.4: Field experiments are irrelevant (aggression measures based either on direct imitation of video game behaviors e.g., karate kicks) or are normal play behaviors.

Facts: Some field experiments have used behaviors such as biting, pinching, hitting, pushing, and pulling hair, behaviors that were not modelled in the game. The fact that these aggressive behaviors occur in natural environments does not make them "normal" play behavior, but it does increase the face validity (and some would argue the external validity) of the measures.

Myth 6.6: Violent video games affect only a small fraction of players.

Facts: Though there are good theoretical reasons to expect some populations to be more susceptible to violent video game effects than others, the research literature has not yet substantiated this. There is some evidence that highly aggressive individuals are more affected than nonaggressive individuals, but this finding does not consistently occur. Even nonaggressive individuals are consistently affected by brief exposures. Further research will likely find some significant moderators of violent video game effects, because the much larger research literature on television violence has found such effects and the underlying processes are the same. However, even that larger literature has not identified a sizeable population that is totally immune to negative effects of media violence.

7 PROSOCIAL BEHAVIOR RELATED TO NEW MEDIA/VIDEO GAMES

Anderson and Bushman (2001) conceptualized on the effects of violent videogames on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal and pro social behavior. A meta-analytic review of the videogame research literature reveals that violent video games increase aggressive behavior in children and young adults. Experimental and non-experimental studies with males and females in laboratory and field settings support this conclusion. Analyses also reveal that exposure to violent video games increases physiological arousal and aggression-related thoughts and feelings. Playing violent video games also decreases prosocial behavior.

The **Anderson and colleagues (e.g., Anderson & Bushman, 2002** proposed the **General Aggression Model**. They used the model to justify the antisocial behavior of the kids because of the prolonged exposure of the kids to the violent video games. This model fits well on the lines of Cultivation Theory (George Gerberner). According to this model, children exposed to aggressive contents of violent media are more prone to develop aggressive behavior. This affects the trio of a person's cognitive, affective, and

arousal traits in the long run. These traits are influence each other because of their complementary nature. Thus, continuous exposure to violent content on media may give rise to aggressive cognitions traits which may promote aggressive responses.

8. Conclusion:

Children live in an electronic environment including videogame consoles and computers. It is evident from the above review of literature that playing violent video game has physiological and psychological effects. Various research designs including experimental, co-relational and longitudinal studies on playing violent video games among children confirms that playing and exposure to violent video game can increase aggressive thoughts, aggressive feelings, and physiological arousal. Research on exposure to television and movie violence suggested that playing violent video games will increase aggressive behavior. Experimental and non-experimental studies with males and females in laboratory and field settings support this conclusion. Analyses also reveal that exposure to violent video games increases physiological arousal and aggression-related thoughts and feelings. Playing violent video games also decreases pro-social behavior. Most young adolescent boys and many girls routinely play M-rated games. Large amount of game play, were related to troublesome behavioral and academic outcomes. Time spent playing violent games specifically, and not just games per se, increased physical aggression. Furthermore, higher levels of pathological gaming, regardless of violent content, predicted an increase in physical aggression among boys and those who played a lot of violent video games became relatively more physically aggressive. Specifically for boys, playing a violent video game should lead to more aggression than watching television violence. Excessive violent computer game playing might be a significant risk variable for aggressive behavior in the presence of personality traits with aggressive cognitions and behavior scripts in the consumers. Media violence exposure may play a role in the development of negative attitudes and behaviors related to health. Although youth growing up in violent homes and communities may become more physiologically aroused by media violence exposure, all youth appear to be at risk for potentially negative outcomes.

Violent video game playing stimulates autonomous nerve system, and thereby central physiological systems in the body can be affected in children, without them being aware of it. It causes physiological arousal such as variation in heart rate, blood pressure and sleep. Children playing games went to bed late on weekdays and weekends and they slept less. Increased times spent on playing video games were associated with increased prevalence of overweight and obesity. It is concluded that video games are not

inherently good or bad, just as any tool is not inherently good or bad. Video games can have both positive and negative effects. Content matters, and games are excellent teachers. Violent content in video games can lead people to behave more aggressively. Pro-social content, in contrast, can lead people to behave in a more cooperative and helpful manner.

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