### Chapter 24

## An Opportunity for In-Game Ad Placement:

# The History of the Video Game Industry Interpreted Through the Meaning Lifecycle

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#### **ABSTRACT**

It is argued here that the potential connections video game advertisers can build with consumers makes this new medium a strong force in the digital media world. A meaning-based model is introduced to explain the fluctuation of meaning over time, which is caused by the individual and social interpretation and integration of signs and symbols. The history of video games will be comprehensively interpreted through this model to explain the active identification going on between consumers and video games.

#### INTRODUCTION

In-game ad placement, defined as the process of placing advertisements in video games, is a rapidly growing industry with \$295 million spent in 2007, \$403 million spent in 2008, and \$443 million spent in 2009 (Verna, 2008; Verna, 2009). However, video game sales for 2008 were \$22 billion, with \$11.7 billion of that being in entertainment software sales, \$8.9 billion in hardware console sales, over \$2 billion in portable software sales, and \$700 million in PC game sales (Hewitt, 2009). So there is still plenty

of room for advertising growth. In the academic realm, in-game ad placement has been subjected to an increasing amount of research over the last decade (Nelson, 2002; Chaney, Lin, & Chaney, 2004; Grigorovici & Constantin, 2004; Nicovich, 2005; Yang, Roskos-Ewoldsen, Dinu, & Arpan, 2006; Lee & Farber, 2007; Wise, Bolls, Kim, & Venkataraman, 2008). It is argued here that the potential connections advertisers can build with consumers makes this new medium a strong force in the digital media world. The power of gaming rests in its high entertainment value, which is engaged in repeatedly by an active consumer. As outlined, each new wave of video game consoles

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and cartridges brings new opportunity for advertisers to engage in a meaning-based process of incorporation and consumption with the consumer.

Sherry (2004) points out that any medium may be sought out for entertainment purposes. However, in accordance with Csikszentmihalyi's (1997) concept of "flow," he argues that video games are uniquely suited for this purpose. Flow is characterized by the high level of engagement an individual displays while completing a task. Flowinducing activities usually possess four traits: 1) clear rules and goals, 2) adaptable skill display, 3) feedback on results, and 4) few distractions. According to Sherry, "It is realized when there is a balance between the difficulty of the task and the skill of the participant" (p. 332). In the same way an individual builds his or her skills learning to play an instrument such as a saxophone or the piano, individuals also develop skills for media use over time. For example, children learn how to use books by developing their reading skills. Video games also require skill development, however, Sherry makes the argument that once even a rudimentary level of video game skill has been achieved, the process of flow can emerge.

In this chapter, a brief history of games (including the current era of video games) will be presented. Then, a review of the identity-building processes consumers participate in will be explored within the context of video game play. From here, a meaning-based model will be introduced to explain the fluctuation of meaning over time, which is caused by the individual and social interpretation and integration of signs and symbols. Finally, video games will be comprehensively interpreted through these models to explain the active identification going on between consumers and video games.

#### HISTORY OF GAMING

The history of games expands back to the beginning of recorded time. Games have functioned

as tools to build social, analytical, and decision-making skills. As each game is passed from one generation to the next, they become contextualized into their immediate environment. Although many games have a core or basic premise that endures over the years, each consecutive version possesses an individualized significance for the timeframe and culture in which they are adopted. The inception of video games is no exception. Although the complexity and variety of video games continues to expand, video games as a whole are nothing more than digitalized versions of classic games, which have evolved over thousands of years. (Grunfeld, 1975; Botermans, Burrett, Van Delft, & Van Splunteren, 1989; Mohr, 1997).

For instance, many of the oldest games can be found in the recorded texts of Ancient Egypt, China, and India, starting around 2,000-3,000 B.C. (Mohr, 1997). Games such as mancala (Egypt), tic-tac-toe (Egypt), chess (India), snakes and ladders (India), go/wei ch'i (China), and checkers (China) were a socially acceptable practice to engage in because of their ties to religious and social functions such as mourning for the dead, learning "war" strategy, and understanding the moral differences between vices and virtues. These ancient games are still being played today and exist not only in their classic form, but also have been reinterpreted into "new" games. For example, chess is considered a war game because players develop offensive and defensive strategy skills as well as the concept of retaliation in a head-to-head match up. Territorial protections as well as aggressive capture-and-destroy techniques are common themes for this game. This conceptualization has been reinvented time and time again into other dueling strategy games such as Mortal Kombat, GoldenEye 007, Battleship, Command & Conquer, etc.

During the Medieval and Renaissance time-frame (400 A.D. – 1,600 A.D.), many of the games created were associated with Europe. During this time, one of the most dramatic shifts in terms of how games are played occurred with the develop-

ment of cards. In fact, cards are a relatively recent style of game play. However, it is important to note that at this time, games possessed a notorious relationship with religion. Unlike the earlier era, instead of being utilized for religious instruction, cards were often denounced as a tool of Satan. But, it is important to remember that at this time of political instability, the national governments were being replaced by an economic feudal system which consisted primarily of nobility landholders and peasant-level serfs. The Christian church also became politically powerful, and every aspect of social life (laws, politics, ceremonies, etc.) began to be filtered through the lens of church and religion (Harper, 1979). Dominoes ("dotted cards"), dice, and darts also reached new heights of popularity at this time.

In the late 1800s, the first coin-operated entertainment devices began to appear in amusement parks, boardwalks, bars, and bowling alleys. These, often home-made, prototypes are some of the earliest versions of what will become video games. The most noted examples are pinball and foosball. During the first half of the 1900s, many of the modern classic board games appeared such as Monopoly and Yahtzee. However at this time, the electrification of gaming was also beginning to emerge as the first computer prototypes were created (Demaria & Wilson, 2004). During the late 1930s and early 1940s the first computers were being created on university campuses as well as governmental departments. Video game development on these new computers helped to usher in technological breakthroughs in computer programming. At this time, televisions were also being introduced to mass audiences.

The first known version of a video game appeared 1948. Called the Cathode-Ray Tube Amusement Device, the computer display was an oscilloscope, which utilized glass vacuum technology and electrons (Demaria & Wilson, 2004). Technically, this computer possessed analog circuitry instead of digital, so it was not the first official digital video game, but it was the

first electric video game. The game itself consisted of a missile and target platform on a screen mimicking a radar display. In 1951, the NIMROD computer was the first digital computer to play a game (Lowood, 2006). Called *NIM*, it has roots in Ancient China, and consists of opposing players utilizing mathematical strategy as they take turns removing items from a pile. Soon after, in 1952, the EDSAC computer displayed a digital version of tic-tac-toe, and in 1958 a Ping Pong-type game, called *Tennis for Two*, was created for a computer with an oscilloscope.

During the late 1950s and early 1960s computers began to shrink from the size of a room to the size of a box. They also began to drop in price and therefore expand into the business sector. The first mass-produced video game was released in 1962 as a component of the PDP-1 computer. Titled Spacewar!, it was a head-to-head shooting game in outer space. During the 1970s and 1980s, additional home computers began to emerge in the market by companies such as Apple, Commodore, and Tandy. Arcade games such as Galaxy Game and Computer Space were some of the first massdistributed arcade games. The creators of Computer Space would eventually establish Atari, the company who would subsequently be the leader in the video game arcade market.

In 1972, three important video game releases occurred: 1) the arcade game Pong by Atari, which pushed video games into mainstream culture, 2) the first hand-held electronic game (which simulated tic-tac-toe) was released by WACO, and 3) the first video game home console was released, titled the Magnavox Odyssey. During the late 1970s, other arcade games appeared with increasing popularity. Some of these games include: Tank (a dueling game), Gran Track 10 (a car racing game), *Breakout* (a solitaire version of Pong), Blockade (a capture game), and Space Invaders (a missile-target game). The overwhelming leader of the arcade market at this time was Atari. Computer games were also released at this time, but they consisted primarily of textual

combat games such as *DND*, a digital version of the tabletop game *Dungeon and Dragons*, or first-person shooter games such as *Maze War*. By the late 1970s, other home consoles were being introduced such as the Fairchild Channel F, the Atari 2600, and the 1978 Magnavox Odyssey<sup>2</sup>.

During the early 1980s, the arcade market was at its height of popularity with the release of games such as Pac Man (a maze game), Donkey Kong, Joust, Q\*bert, and Donkey Kong Jr. (all platform games). During this time, numerous other home consoles also emerged, including the Mattel Intellivision, the CBS ColecoVision, the Emerson Arcadia 2001, and the Smith Engineering Vectrex, among others. In fact, the arcade and home console markets quickly became saturated and then oversaturated as more and more lowquality, copycat games were created by third-party software developers (Demaria & Wilson, 2004; Shilling, 2006). At this time, since video game console (i.e., hardware) companies were unable to hold on to exclusive control of their gaming rights, the quality of many video games (i.e., software) during this era took a nosedive as companies focused on quantity over quality. In 1983, the overcrowded retail market caused the video game industry to momentarily collapse, forcing many console companies to fail. This crash also toppled Atari from its title as the leader of the arcade and home console markets.

The home console market reemerged in 1985 with the release of the Nintendo Entertainment System (NES), an 8-bit home console that included the game *Super Mario Brothers*. Other home consoles emerged in 1985, including the Atari ST and the Commodore Amiga, but the NES would dominate the market. One major factor in Nintendo's ability to obtain and sustain market dominance was its decision to strictly control game cartridge software licensing (Schilling, 2006). Other popular NES games at this time included the role-playing adventure games *DragonQuest*, *The Legend of Zelda*, and *Final Fantasy*. In 1989 Nintendo introduced an updated handheld console,

Game Boy, which included the puzzle game *Tetris*. One year later, rival handheld consoles such as the Sega Game Gear and the Atari Lynx appeared.

The first formidable home console opponent of the NES appeared in 1989 with the 16-bit Sega Genesis, which featured the game Sonic the Hedgehog. In 1991, Nintendo responded with the release of the 16-bit Super NES (SNES). One of the most popular games for both consoles during this time was Mortal Kombat (a duel game). Now that the home console market was heating up again, the last major game in the arcade market during this time was Street Fighter II (a duel game). Eventually, many arcades were replaced by destinations such as Dave & Buster's and Chuck E. Cheese. The computer game market was able to stay afloat in this competitive market with games such as Dune II (a real-time strategy game - RTS), Alone in the Dark (a survival horror game), Myst (a puzzle game) and the immensely popular simulated-life series titled The Sims: SimCity, SimEarth, SimAnt, SimLife, SimSafari, Simcity 3000, etc.

The next wave of home consoles occurred from 1994-1996 with the 32-bit Sony PlayStation, the Atari Jaguar (64-bit), the Panasonic 3DO (32-bit), the Sega Saturn (32-bit) and the Nintendo 64, or N64 (64-bit). Many of these consoles began to utilize CD-ROM technology for their cartridges, which enabled the production of the first fully three-dimensional games such as Super Mario 64 for N64, Golden Eye 007 for N64, and Tomb Raider for PlayStation and Saturn. The Sony PlayStation was the clear market leader during this time, with the Nintendo 64 as the closest market challenger. However, a new wave of consoles was quickly around the corner and positioned to move video games from household entertainment to social phenomenon.

In 1996, with the introduction of the Internet to the public, Internet games for computers emerged. Then in 1999, Sega introduced the Dreamcast console which revolutionized home console video gaming by implementing an Internet modem and Web browser. Subsequent

Internet-capable consoles include the Sony PlayStation 2 (PS2), the Nintendo GameCube, and the Microsoft Xbox. At this time the PS2 was the market leader. Popular games during this time include *Grand Theft Auto III* for PS2, *Metroid Prime* for GameCube, *Halo 2* for Xbox, and *Guitar Hero* for PS2. The most recent wave of consoles released by the market's now three leading companies include: 1) the Microsoft Xbox 360, 2) the Sony PlayStation 3 or PS3, and 3) the Nintendo Wii. The Microsoft Xbox 360 was the market leader of its time until the release of the Nintendo Wii.

To this end, the process of game play has remained relatively stable over thousands of years. With the passage of time, new games emerge and are integrated into a society's culture. However, the basic function of games - as a form of entertainment - has remained intact. Now, with a firm understanding of how the gaming industry has developed, the discussion will transition to the consumer's side of game play. The following will explore how consumers build their identities through the process of integrating social meaning (and the items associated with this meaning such as video games) into their lives. Then, a meaningbased model is proposed which describes the fluctuation of meaning over time, portrayed in a meaning life cycle.

## CONSTRUCTING MEANING THROUGH GAME PLAY

Meaning is constructed through the individual and social interpretation of signs and symbols. The interpretation of meaning is inherently subjective and identified by observing the interaction of objects, actions, and people (Morris, 1938; Levy, 1959; Csikszentmihalyi & Halton, 1981). Because both the individual and society must negotiate on the classification of meaning, the perception of meaning occurs on both a psychological and sociological level.

Individuals identify with the meaning that is attached to objects, social roles, and even other individuals. Therefore, an individual's identity is made up of two parts, the individual's evaluation of himself/herself which is called self-concept, and the individual's evaluation of how others view him/her. This notion could be summarized as group affiliation, or how the individual relates to the people around him/her. According to Burns (1979), this concept of a "dual consciousness" began to emerge in scholarly literature in the 1600s with Descartes (i.e., "I think, therefore I am") which emphasized the metaphysical phenomenon of self-awareness and split the self into a "self concept" and a "concept of self." During the 1700s, Immanuel Kant refurbished this idea into the "self as subject" and the "self as object." Then in the late 1800s, these concepts were again overhauled by William James into the "knower" and the "known".

During the 1950's Erving Goffman introduced the process of symbolic interactionism to describe the continual tension and interrelatedness of an individual to his or her society. Goffman (1959) used a dramaturgical (i.e., theatric) metaphor explaining how the individual puts on a show for others by managing one's impression. This "presentation of self" or "image projection" is communicated to others through the use of social cues. That way others, reading these cues, will know "who" he or she is. Items often studied during symbolic interactionism include setting, clothing, appearance, words, and nonverbal actions. As evident, here the process of communication through self-extension (Allport, 1961) is the underlying study of inquiry:

Objects serve as the set and props on the theatrical stage of our lives. They situate an individual's character or personality in a context. We use objects as markers to denote our character to others; we also use objects as markers to remind ourselves of who we are. In this sense we derive our self-concept from objects. That is, we use objects to convey and extend our self-concepts to others as well as to demonstrate the self-concept to ourselves. Objects convey our connection to others and help express our sense of self (Wallendorf & Arnould, 1988, p. 531).

In terms of mass communication, self-extension theory looks at the role of consumer products. People use the possession of specific brands in order to express their identity, in terms of both self-concept and group affiliation (Belk, 1988). Since brands possess symbolic meanings of culture, possession of that brand allows one to indirectly possess the cultural meaning (Aaker, Benet-Martinez, & Garolera, 2001; Douglas & Isherwood, 1978). Belk (1988) uses the metaphor of positive contamination to describe the process of obtaining meaning by being in physical proximity to something possessing a desired trait. The hope is that some of the cultural significance will magically rub off from the object to the individual.

Eastin, Appiah, and Cicchirllo (2009) provide an example of self-extension through video games in their analysis of racial identification with a video game character. When an individual is playing a video game where racial cues are signified, the symbolic meanings associated with a particular race may "contaminate" (via Belk) the individual. In this study, research participants who identified themselves as either White or Black were randomly assigned to play either a White or Black video game avatar in a make-believe, first-person shooting game. Another manipulation was the race of the opponent in the video game. Two post-play measures for this study were: 1) identification of the research participant to his/her avatar, and 2) aggressive thoughts experienced after playing the game. From this experimental design, Eastin et al. found that Black research participants had a higher identification score with Black video game avatars versus White avatars and White research participants had a higher identification score with White video game avatars versus Black avatars. Also, when a White participant was assigned a

Black video game avatar, he/she exhibited higher levels of post-play hostility compared to the White participants assigned a White avatar. Finally, when a Black participant was assigned a White opponent, he/she exhibited higher levels of post-play hostility compared to the Black participants assigned a Black opponent.

In terms of self-extension, the higher levels of identification with one's own race for both Black and White research participants signifies that individuals allow an aspect of their personal identity to extend into their video game identity. In other words, a part of oneself extends into the daily activities of our lives. Also, in terms of the White participants, their higher levels of hostility arguably arose from their assignment as a Black video game avatar and the cultural stereotypes associated with this race. In other words, some of the identity from the video game extended back onto the real-world individual. Appiah (2004) brings attention to a similar phenomenon he calls "cultural voveurism," and describes it as the acquisition of knowledge about another race and subsequent emulation of that culture through mass media, such as television shows, movies, music, and video games. In turn, the hostility exhibited for Black participants who played against White opponents also confirms the implicit self-extension of video game use onto the individual.

#### THE MEANING LIFECYCLE

Another way to understand the processes of symbolic interactionism, self-extension, and impression management would be to look at the shifts in meaning throughout time. As stated, the act of game play has remained relatively stable over thousands of years. The specific games played have varied, but only to the extent that they are a reinterpretation of the past. The same could be said of meaning as a whole. Meanings themselves often do no vary greatly over time. Yet, salience of meanings can vary greatly because over time

society and the individual must continually reinterpret the world around them. The meaning-based model proposed here describes the fluctuation of meaning over time, portrayed in a meaning life cycle. In doing so, it moves from creation, to distinction, to identification, to application, to validation, and finally consumption.

#### Creation

Desire must exist before meaning can be created. The desire for the creation of a new meaning arises on both individual and social levels. Individually, a person participating in the creation of new meaning feels on some level a gap, deficiency, absence, want, need, craving, etc. If an individual felt completely fulfilled, then the creation of new meaning would become irrelevant. No one would need to attain new meaning in their life if they possessed full levels of personal fulfillment or self-actualization. On a social level, new meaning is not really created, but instead given salience or priority. Since society possesses the full spectrum of all the good and bad aspects of existence, then new meaning cannot really be created. Therefore, a gap does not become apparent in society as it does in the individual. Instead, the notion of scarcity drives the priority and salience of "new" meaning. Scarcity by definition describes a meaning that is no longer possessed by numerous individuals. Therefore, the gap felt in the individual's life is the realization that a meaning has become scarce in society.

Because video games possess the right mix of high entertainment value as well as high active participation by consumers, video game consumers may possess higher attention rates and therefore may be more willing to integrate the social messages communicated in video games because they feel part of the video game's community and culture. Therefore, with each new era of video game consumers, a newly desired level of meaning is created. For the individual, a desire arises for a new level of skill development through the

entertaining nature of video games. This desire (i.e., gap) at the individual level highlights a level of scarcity in society. In other words, each new era of video games and/or consoles display what was scarce in society prior. An example of this can be found with the emergence of the Nintendo Entertainment System, as described above. The NES gained market dominance because it produced high-quality games with strict third-party licensing. This filled the need of consumers who were unhappy with the overcrowded prior home console market which offered hundreds of low-quality, copycat games (Schilling, 2006).

#### **Distinction**

Once meaning has been established, it must be distinguished from related topics. A newly created meaning must show what it is and what it is not. In other words, each meaning is at the same time connected to all other meaning, yet must stand on its own and carve out its own niche. Meaning is contextualized, and therefore the new meaning created does not exist in a vacuum and must show how it relates to other topics, both similar and dissimilar. As stated, many of the games and consoles released are just updated versions of games from the past (like dueling games, maze games, racing games, etc.), however each new version must display how it is similar and distinct from every game or console prior.

## Identification, Application, Validation, and Consumption

Once meaning has been created and identified as distinct, it is then ascribed to something physical so that it can communicate what it represents. Since meaning itself is intangible, it is only when it is ascribed to a physical object does it become a symbolic representation that can be communicated between individuals and societies. Once meaning has been ascribed to an object, the use of that object implies the use of the related meaning. With

the use of an object and therefore application of meaning, the individual and society negotiate on the acceptance of meaning transference to the individual. Through application, the individual is attempting to display their connection to the meaning, while society is determining whether or not this meaning will transfer to the individual.

The meaning created by both the individual and society is ascribed to a game or console through the purchase and habitual use by the consumers. The individual consumer perceives the game or console possesses a desired trait. The social agreement of this perception can often be studied by analyzing the "fads" or the games and consoles that reach mass heights of popularity. Often similar games and consoles are also available in the market at the exact same time. But, it is the connection of consumer and product on a mass level that underlines the shared meaning they possess. Therefore, the market leaders in terms of consoles and video games validate the individual and societal negotiation of what the new meaning represents.

The actual consumption stage is related to the idea of meaning being used or digested. At this stage, a certain amount of irony sets in for the individual. Now that he or she has obtained this meaning, the symbolic gap felt earlier should be filled. However it is often the case that a gap still exists, but has merely shifted. On a social level, the shifted gap felt by the individual is what is now deemed scarce. As one can see, new levels of scarcity appear in society through shifting levels of individual ownership of meaning. In terms of video games, the consumption of this meaning is often displayed during the end of a game or console era. After the fad passes, or perhaps because the fad was created, this creates a scarcity for each individual in a different aspect of their lives. Therefore, the meaning lifecycle starts anew, and a new era of available video games and video game consoles becomes available. The model shown in Figure 1 displays the full cycle of meaning from creation to consumption.

One can follow the fluctuation of meaning over time by studying the history of game play just described, looking at video games in particular. With the inception of technological advances such as television and computers, the creation of digital games appeared. The new meaning created for the individual was to utilize this new technology in fun and entertaining ways. The digital games created followed the same formats of classic game genres which have been played for thousands of years. Games such as Tennis for Two and Spacewar! (i.e., dueling games) fit into this new wave of meaning. However, it would be decades before computers were introduced to the home market. Therefore, arcade consoles were created that would play only one game. Examples of this era include Pong and Space Invaders, although soon even these were replaced by other games such as Pac Man, Donkey Kong and O\*bert. Each year, new games were being introduced in order to satisfy the individual craving for something different.

During the height of the arcade fad, the home console market was beginning to flourish. People now wanted to enjoy this gaming experience at home. However, the software for home consoles could not maintain market presence because copycat games were appearing all the time. Like stated above, this created an oversaturated market.

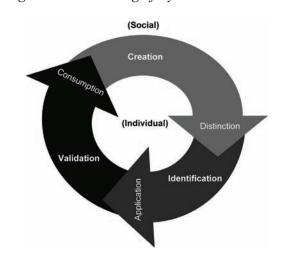


Figure 1. The meaning lifecycle

For a while, these copycat games filled the need for consumers to purchase many types of games at low prices. However, at the time of market saturation, on a societal level, the availability of good, high-quality games was missing. The 1983 video game market collapse signaled the shift of individual preference away from copycat games. In order to fill this new need of high-quality games, one company, Nintendo, developed strict software licensing deals. Individual consumers responded by purchasing the NES home console in order to meet this new need. Games popular during this time included Tetris, Super Mario Brothers, and The Legend of Zelda, which again were just updated versions of the classic puzzle and adventure game genres. By 1989, the domination of the NES console in the video game market once again displayed a new gap in society. Individuals no longer wanted one, strong home console with high-quality games. Now they wanted at least two to choose from. Individuals were craving choice once again. This manifestation was met with the rise in market popularity of the Sega Genesis.

Soon after, other rival consoles emerged, and now the new need being met was higher and higher picture resolution, from 8-bit to 16-bit to 32-bit to 64-bit, etc. Then, another technological revolution happened. With the arrival of the Internet, the concept of what video games were capable of producing shifted once again. Individual needs of graphic complexity and game complexity were being met by stronger and stronger consoles with Web capability. Today, the market has three main front runners in terms of home consoles: 1) Microsoft Xbox 360, 2) Sony PlayStation 3, and 3) the Nintendo Wii. Popular games at this time include Guitar Hero, Rock Band, Halo 2, and Grand Theft Auto III. However, this will soon be changing.

In terms of in-game ad placement, the cycling nature of meaning in general and video games in particular presents an opportunity for advertisers. Not only could an advertised brand obtain high levels of reach and frequency if it is connected

to a video game or console that explodes into mass culture via mass acceptance (i.e., a fad or trend), but advertising could aid in the success of a video game or console. It is through advertising's success in ascribing meaning to products and services that provides any particular brand a measure of success. This same process can be applied to video games. Whether it is through creating a more realistic atmosphere in the video game environment, or by bringing in meanings from existing brands into a new game, advertising's knack for assigning meaning could create new levels of customer-brand relationships that have never existed before in any other medium. Again, this is because of the high entertainment value of the video game, which by nature is engaged in repeatedly by an active consumer. The cycling nature of the video game industry (and games as a whole) will continue on whether or not the advertising industry gets and stays involved in the process. However, an engaging prospect exists for advertisers to jump into a phenomenon of meaning creation, distinction, identification, application, validation, and finally consumption.

#### REFERENCES

Aaker, J. L., Benet-Martinez, V., & Garolera, J. (2001). Consumption symbols as carriers of culture: A study of Japanese and Spanish brand personality constructs. *Journal of Personality and Social Psychology*, 81(3), 492–508. doi:10.1037/0022-3514.81.3.492

Allport, G. W. (1961). *Pattern and Growth in Personality*. New York: Holt, Rinehart and Winston.

Appiah, O. (2004). Effects of ethnic identification on web browsers attitudes toward, and navigational patterns on, race-targeted sites. *Communication Research*, 31(3), 312–337. doi:10.1177/0093650203261515

Belk, R. W. (1988, September). Possessions and the extended self. *The Journal of Consumer Research*, 15, 139–168. doi:10.1086/209154

Botermans, J., Burrett, T., Van Delft, P., & Van Splunteren, C. (1989). *The World of Games: Their Origins and History, How to Play Them and How to Make Them.* New York: Facts on File, Inc.

Burns, R. B. (1979). *The Self-Concept: Theory, Measurement, Development, and Behavior*. New York: Longman.

Chaney, I., Lin, K., & Chaney, J. (2004). The effect of billboards within the gaming environment. *Journal of Interactive Advertising*, *5*(1). Retrieved from http://www.jiad.org.

Csikszentmihalyi, M. (1997). Finding Flow: The Psychology of Engagement with Everyday Life. New York: Basic Books.

Csikszentmihalyi, M., & Halton, E. (1981). *The Meaning of Things: Domestic Symbols and the Self*. Cambridge, UK: Cambridge University Press.

Demaria, R., & Wilson, J. L. (2004). *High Score! The Illustrated History of Electronic Games*. Emeryville, CA: McGraw-Hill/Osborne.

Douglas, M., & Isherwood, B. (1979). *The World of Goods*. New York: Basic.

Eastin, M., Appiah, O., & Cicchirllo, V. (2009). Identification and the influence of cultural stereotyping on postvidogame play hostility. *Human Communication Research*, *35*, 337–356. doi:10.1111/j.1468-2958.2009.01354.x

Goffman, E. (1959). *The Presentation of Self in Everyday Life*. Garden City, NY: Doubleday.

Grigorovici, D., & Constantin, C. (2004). Experiencing interactive advertising beyond rich media: Impacts of ad type and presence on brand effectiveness in 3D gaming immersive virtual environments. *Journal of Interactive Advertising*, 4(3). Retrieved from http://www.jiad.org.

Grunfeld, V. (1975). *Games of the World: How to Make Them How to Play Them, How They Came to Be*. New York: Holt, Rinehart and Winston.

Harper, N. (1979). *Human Communication Theory: The History of a Paradigm*. Rochelle Park, NJ: Hayden Book Company, Inc.

Hewitt, D. (2009, January 28). Computer and video game industry tops \$22 billion in 2008 (press release). *Entertainment Software Association*. Retrieved September 27, 2009, from http://www.theesa.com/newsroom/release\_detail.asp?releaseID=44

Lee, M., & Faber, R. J. (2007). Effects of product placement in on-line games on brand memory: A perspective of the limited-capacity model of attention. *Journal of Advertising*, *36*, 75–90. doi:10.2753/JOA0091-3367360406

Levy, S. J. (1959, July). Symbols for sale. *Harvard Business Review*, *37*, 117–124.

Lowood, H. (2006). A brief biography of computer games. In Vorderer, P., & Bryant, J. (Eds.), *Playing Video Games: Motives, Responses and Consequences* (pp. 25–42). Mahwah, NJ: Lawrence Erlbaum Associates.

Mohr, M. S. (1997). *The New Games Treasury*. New York: Houghton Mifflin Company.

Morris, C. W. (1938). *Foundations of the Theory of Signs*. Chicago: University of Chicago Press.

Nelson, M. (2002, April). Recall of brand placements in computer/video games. *Journal of Advertising Research*, 80–92.

Nicovich, S. G. (2005). The effect of involvement on ad judgment in a video game environment: The mediating role of presence. *Journal of Interactive Advertising*, 6. Retrieved from http://www.jiad.org

Schilling, M. A. (2006). Game not over: Competitive dynamics in the video game industry. In Lampel, J., Shamsie, J., & Lant, T. K. (Eds.), *The Business of Culture: Strategic Perspectives on Entertainment Media* (pp. 75–104). Mahwah, NJ: Lawrence Erlbaum Associates.

Sherry, J. L. (2004). Flow and media enjoyment. *Communication Theory*, *14*(4), 328–347. doi:10.1111/j.1468-2885.2004.tb00318.x

Verna, P. (2008 February). Video game advertising. *eMarketer*. Retrieved September 27, 2009, from http://www.emarketer.com/Reports/All/Emarketer\_2000485.aspx

Verna, P. (2009 June). Digital entertainment meets social media. *eMarketer*. Retrieved September 27, 2009, from http://www.emarketer.com/Reports/All/Emarketer\_2000580.aspx

Wallendorf, M., & Arnould, E. J. (1988). My favorite things: A cross-cultural inquiry into object attachment, possessiveness, and social linkage. *The Journal of Consumer Research*, *14*(4), 531–547. doi:10.1086/209134

Wise, K., Bolls, P. D., Kim, H., Venkataraman, A., & Meyer, R. (2008). Enjoyment of advergames and brand attitudes: The impact of thematic relevance. *Journal of Interactive Advertising*, *9*(1). Retrieved from http://www.jiad.org.

Yang, M., Roskos-Ewoldsen, D. R., Dinu, L., & Arpan, L. M. (2006). The effectiveness of in-game advertising: Comparing college students' explicit and implicit memory for brand names. *Journal of Advertising*, *34*(4), 143–152. doi:10.2753/JOA0091-3367350410