

Entertainment Software: Suddenly Huge, Little Understood

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ENTERTAINMENT SOFTWARE: SUDDENLY HUGE, LITTLE UNDERSTOOD

Structured Abstract

Purpose: In less than three decades the Entertainment Software industry has emerged as a huge industry, with sales larger than Hollywood movie box office sales. Yet, little is known about this industry. Stereotypes about the industry may not be correct. This paper addresses this knowledge gap.

Methodology/Approach: The paper identifies what is known, and what needs to be known. The paper reviews the literature and adds data from the most recent reports available.

Findings: The literature has been slow to address this industry. It has not even been clear what to call this industry. (Some people still call it the video game industry). The most basic marketing issues still need to be researched, ie, customer benefits sought and segmentation. A typology of game genres is proposed.

Originality/value of paper: This paper is the first overview of the entertainment software industry from a marketing perspective.

Key words: entertainment software, video games, computer games, marketing, benefits sought, segmentation

“The worldwide video game industry, with revenues of \$24.5 billion last year, overtook movie box-office receipts, and sales are expected to soar to \$55 billion by 2008, according to PriceWaterhouseCoopers.” (Business Week Feb 28, 2005)

“Opening-week global sales for Microsoft's Halo 2 sci-fi game, for the Xbox, reached \$125m, beating the \$108m taken by Shrek 2, the biggest film of the year.” (Marketing Week, December 4, 2004)

By now everyone knows of the video game industry, but people may still be surprised at how big it has become. From virtually nowhere 20 years ago to US\$24.5 billion in 2004. The video game industry has now *overtaken the movie industry box-office receipts* in terms of annual sales, and blockbuster video games can out perform blockbuster movies for opening-week sales.

Furthermore, respected forecasters predict sales will double in the next four years (PriceWaterhouseCoopers forecast quoted above). Movie industry downstream revenue (TV broadcast, DVD/VHS rentals, DVD/VHS sales) make the total movie industry larger, but the computer and video game industry is expected to surpass total worldwide recorded music industry sales in just a few more years. Any way you look at it, this games industry has become very big business.

The popularity of the computer and video games industry may have caught many managers and researchers by surprise, perhaps because many of the writers of analytical articles are of an earlier generation than that which has grown up with these games. “Has there ever been a cultural sea change as stealthy as the one represented by the rise of interactive entertainment? To anyone who came of age after, say, the introduction of the first Sony Playstation in 1995, video gaming is every bit as central to the pop-entertainment universe as movies or music.... No one would think of denying that video games are big, but few grown-ups outside the business have an understanding of just how big they’ve become.” (Dee, *New York Times Magazine*, December 21, 2003).

-- Insert Figure 1, US computer and video game software sales 1995 to 2004 --

Another way to look at this industry is to consider how many games have been produced. Between 1994 and 2004, 10,000 titles were submitted by more than 550 game publishers to obtain ratings before going on sale (age-appropriateness content ratings, such as Everyone, Teen, Mature, or Adults only; source www.theesa.com/about/related_links.php). This is a significant amount of product, and may not include many smaller titles such as some shareware games.

How well do the best-selling games sell? Besides the Halo 2 phenomenon in the quote at the start of this paper, 12 different games sold more than one million units in 2004. Estimating US\$50 for a new premier game, suggests that *12 games sold more than US\$50 million each* in the US alone. (Data from NPD group research reported in an industry association website, http://www.theesa.com/facts/sales_genre_data.php)

Finally, consider how well games companies are doing financially. Many of the early game companies have shrunk or disappeared (eg, Infocom, Broderbund games), but the largest modern games company is gigantic by any standard. In 1994 Electronic Arts (EA) was a company with \$500 million in sales and a stock market capitalization of \$1.8 billion (all dollar figures in this paper are US\$). By 2004, it had become a \$3 billion in sales company with a market capitalization of \$15 billion. This places *an exclusively games company as the fourth largest capitalized software maker* in the world, behind Microsoft, Oracle and SAP Corporation (Lowenstein 2004).

This paper presents an overview analysis of this industry from a scholarly perspective with a marketing, strategic management and leisure studies focus.¹ It will address the following questions. First, how is the industry to be defined and what is it to be called? Second, what has the scholarly literature to say about it? Third, how are these games distinctive from other products? Fourth, what key aspects can we discern at this time? Finally, what do we need to know about it (key research needs)? The bottom line is that there is an enormous gap in the published understanding of this industry, providing a call to researchers and practitioners to begin to fill in the virtually vacant written literature on this topic. Our paper begins with the basics.

What Shall We Call It?

We have to beware of some confusing terminology related to industry definition. Thus, it is somewhat unusual but our first task is to resolve the issue of what to call this industry. We do have clear terms to apply to the specific delivery systems known in the trade as different “platforms”: console games (games played on consoles attached to televisions, eg Playstation, Xbox), computer games (games played on personal computers, mainly playable on the dominant Microsoft Windows operating system, but could also be playable on Macintosh or Linux), and handheld games (games playable on portable dedicated game machines, eg Nintendo Game Boy series, Sony PSP).

However, there does not seem to be *a single term that everyone uses to collectively describe* all types. Terms sometimes used are “video games,” “electronic games,” “digital games,” or “interactive software”. However, electronic games can also refer to stand-alone units dedicated to a specific game, such as a handheld basketball game. Better is to use electronic to refer to hardware, and digital to refer to software. “Digital games” refers to software games. This term is in use by some academics (eg, the new Digital Games Research Association, DiGRA), but the term “digital” still has the primary reference in the online Merriam-Webster dictionary to “of or relating to the fingers or toes.” Thus, “digital games” could be misinterpreted as (or jokingly used as) referring to some kind of finger play—fodder for double-entendres. The term “video game” is sometimes used to refer to an entire industry. Dictionary.com defines “video game” as “An electronic or computerized game played by manipulating images on a video display or television screen.” This is an inclusive definition, including computer games. However, Merriam-Webster defines “video game” as “an electronic game played by means of images on a video screen and often emphasizing fast action”. This latter definition recognises the fast action connotation of “video games”. Types of games such as strategy games (especially turn-based strategy games) or puzzle games do not fit perfectly comfortably within the term video game.

The overall term for these types of products used by Amazon.com is “Computer & Video Games.” This recognizes that video games typically refers to console and handheld games, and can be different from computer games. A retailer’s perspective would be expected to relate to

SKUs (stock keeping units), as the same game for a different platforms is a different SKU. This is also the category term used by ABI Inform/Proquest (Computer & video games). The term “computer & video games” is clear and intuitive, and would suffice. However, putting the term computer first represents what now appears to be an historical anomaly. Computer game sales dominated video game sales a decade ago, but today computer game sales represent about 1/6 of video game sales: in 2005 video console game sales totalled \$6.06 billion, versus about \$1 billion for computer game sales. Therefore, perhaps it would be more appropriate to use the term “video & computer games.”

The latest trend, occurring as this paper is being written, is incorporated in the name change of a key industry association, from “Interactive Digital Software Association” to renamed as “Entertainment Software Association.” The former term, Interactive Digital Software, is ponderous and technically oriented (a product-oriented name), whereas Entertainment Software is market-oriented (entertainment) with a technology supplemental term (software) to distinguish it from other entertainment products, such as movies. This term, entertainment software, makes good sense, and is preferable to video and computer games because the latter is product-oriented not market-oriented (remember the insight that railroads are in the transportation industry not the declining railroad industry [Levitt 1960]). Furthermore, there is nothing more authoritative than what the industry association wishes to call its industry. Therefore, the term entertainment software will be used in this paper to refer to the industry collectively. The term “video game” will be used to refer to console and handheld games but not computer games. We recommend that all writers on this industry should use the term entertainment software.

What is a formal definition of entertainment software? The Entertainment Software Association defines its industry as “the companies that publish video and computer games for video game consoles, personal computers, and the Internet” (www.theesa.com/about/index.php). The industry association does not provide a definition of entertainment software, but starting with its industry definition and extending that across all major current and upcoming platforms, entertainment software is defined here as “software games usually played on video game consoles, personal computers, handheld portable game players, the Internet or mobile phones.”

The term entertainment software also reflects the increasing *convergence* of games across platforms – a major game is often released on most or all platforms these days (eg, even the Sims 2, a strategy game originally for PC, will be available on all platforms, PC, Xbox, PS2, PSP, DS and even GBA. At the same time, there is, as one would expect in industry evolution and maturation, increasing *divergence*. Technological advances keep providing new platforms, such as mobile games for mobile phones.

Scholarly Literature

The scholarly literature is important for practitioners as well as academics and students, because it can present original, scientific, peer-reviewed and freely available (ie, published) knowledge on the subject. As the term entertainment software is new, the literature search will use the term more frequent in the older literature, video games.

A search of ABI/Inform in April 2005 on the term “video games” resulted in 232 peer-reviewed documents. Inspection of these revealed seven marketing, leisure studies, or strategic management journal articles that we would classify as having more than casual reference to video games. These would be articles with a detailed examination of the marketing environment from an empirical or theoretical perspective with the goal of understanding why video games are bought or sold. Of these seven, four had “video games” in the title, an indicator of major focus on video games.

The earliest reference to video games of any kind was in the *Journal of Academy of Marketing Science* in 1982 when Friedman, Weingarten, Friedman and Gallay (1982) used “a professionally-prepared brochure describing a new video game” as a stimulus in a new product pricing experiment. There was no discussion of the video game industry. The first reference to video games in business sense, which also happens to be the first meaningful analysis in a marketing and strategic management sense, is “Making Interactive Products Come Alive” by Jeffrey Durgee (1984) in the *Journal of Consumer Marketing*. It mentioned video games as one of several “Interactive Products” (including also automated teller machines), and then did an applied analysis of an electronic educational product called “Talking Typewriter.” The earliest

(and only so far) analysis focused on video games in leisure studies is: “Arcade Video Games: Proxemic, Cognitive and Content Analyses,” in the *Journal of Leisure Research* (Braun and Giroux 1989). The earliest meaningful analysis from a marketing and strategic management perspective focused entirely on video games would appear to be, amazingly not until 1999, “Global Marketing of Leisure Software: A Case Study of Asian Countries,” by Dixon and Karboulonis (1999) in the *International Marketing Review*. The paper’s brief overview of what it calls the leisure software market does not cite any other analytical articles (only news articles). It focuses on global marketing, and concludes “a successful strategy has been that of franchising to penetrate new [international] markets....”

One early marketing journal article, by Kim et al (2002), notes there is little research on gaming and focuses on one aspect of consumer behaviour related to one type of games, as in the title of their article, “Elifestyle and Motives to Use Online Games.” They divided online games into four types: shooting, role-playing, simulation (strategy) and MUD (multi-user dungeon). They found a statistically significant correlation between playing online shooting games and the entertainment motive, playing online role playing games and the sociability motive, and playing online simulation games with sociability and entertainment, and MUD with sociability. However, the motives and game genres used are very broad brush. In the information technology business literature there is an article on games, “Why do people play on-line games? An extended TAM [Technology Acceptance Model] with social influences and flow experience,” by Hsu and Lu (2004). They conclude there is little literature on why people play games, and analyse it within the analytical framework of the “Technology Acceptance Model”. Hsu and Lu extended the more utilitarian TAM, which focused on “perceived usefulness” and “perceived ease-of-use,” with a variable suited for online games, “flow.” They found “Overall, the results reveal that social norms, attitude, and flow experience explain about 80% of game playing.” However, this too is very broad brush, and a more detailed consumer motivations model would be useful. A laboratory experiment published in the *Journal of Advertising Research* (Nelson 2002) found that product placements in video games did result in enhanced brand name recall and were not seen as deceptive. A recent article in the *European Business Review* (Ip and Jacobs 2004) highlighted the issue of “territorial lockout” in video game distribution, in which games and equipment are not usable everywhere (similar to DVD regional encoding). The article concluded the arguments

for exclusive distribution territories were “insubstantial” and exclusive distribution policy is “ineffective.” This further highlights the global nature of entertainment software.

A similar search of ABI/Inform on “computer games” returned 77 peer-reviewed entries. However, perhaps reflecting the smaller size of the computer game market, there were not any articles we would consider meaningful analyses focused on marketing or strategic management issues. A search on the new term, “entertainment software,” also did not yet result in any such articles.

In sum, understanding of the entertainment software industry in the scholarly literature is still very limited, and *under-researched* given the large size and importance of the industry. The extant literature touches on a few aspects, but is yet to be complete or to be integrated. It is not even clear if the key issues for understanding the industry are being addressed. There are some scholars beginning to focus on the study of entertainment software, exemplified by the new Digital Games Research Association, DiGRA. DiGRA, though, appears more humanities focused, on cultural analysis, narrative analysis and aspects of game development.

Is Entertainment Software Different?

Is the entertainment software any different from other industries? It is obviously not like consumer packaged goods, where the same item is frequently purchased (eg, Listerine Tartar Control mouthwash), as a particular game is purchased only once. Furthermore, a key characteristic of most consumer marketing is strong, ongoing brands (eg, SBU or Strategic Business Unit brands, as in McDonald’s restaurants or Lay’s potato chips). These generally don’t exist for entertainment software, except perhaps for a few renowned game developer SBUs, such as Blizzard or Square-Enix. Few consumers know (or care) about the corporations that actually own the games, such as the major games producer Vivendi-Universal.

Probably the closest industry is of course the entertainment industry. Of the main entertainment products, TV, music and movies, entertainment software most closely resembles movies. This is indicated by increasing *cross-over* of product from movies to entertainment software. Titles such

as Shrek or The Matrix or Fantastic 4 are both major movies and entertainment software games. There's even cross-over the other way, from entertainment software to movies, such as Tomb Raider and Final Fantasy. Major companies produce both movies and entertainment software, such as Sony (also a Hollywood major studio) and Vivendi-Universal (which includes the Hollywood major studio Universal Pictures).

However, entertainment software differs from movies and other what might be called "regularly purchased entertainment products"² in four important ways that make it distinctive.

1) Entertainment software is *interactive*. This means that user interface and ease of use are very important. It is probably more interactive than most other product experiences including service interactions. For example, while I interact with my barber, much of the time I sit passively while my hair is being cut, whereas every moment of entertainment software consumption is interactive.

2) The entertainment software consumption experience is *longer* than for just about any other product. A movie may last up to 3 hours, but experience with an entertainment software may last up to 150 hours or even go on indefinitely. For example, Final Fantasy X is an enormous adventure, requiring perhaps 150 hours to fully complete. A real-time-strategy game can be played virtually infinitely in skirmish and multiplayer mode, even after the single-player campaign is completed. For example, some people still play the game Starcraft even though it was released in 1998. While a favourite movie may be viewed many times, or favourite songs listened to repeatedly, these are essentially repeats of the same product experience, whereas the entertainment software, due to its interactivity and flexibility (eg, a flexible computer AI opponent in skirmish mode) is somewhat different each time.

3) Entertainment software is *more expensive* than most other entertainment products. Compared to movies, music and TV, the new entertainment software generally has a recommended retail price of around \$50, which is more than five times the cost of a movie ticket and more than three times the RRP of a music album or movie DVD. The opportunity cost of entertainment software is also among the highest of regularly purchased entertainment products, because music and movies are over quickly even if the product experience is less than highly desirable, but the time lost on a mediocre game can be large.

4) Entertainment software has a *learning curve and skill requirement*. Anyone can watch a movie or listen to music, but a casual approach to most entertainment software will result in a swift and discouraging defeat. What many nonplayers do not realize is that most games are not easy to win, and some can be quite challenging. Completing God of War, for example, requires careful learning, excellent hand-eye coordination for quick and accurate hits on enemies, and solving difficult puzzles. So does winning at Empire Earth II, a recent real-time-strategy game, which highlights its complexity in advertising that states the game player can “Command over 500 unique units and buildings in your 12,000 year conquest.” This learning curve and skill requirement may have a large influence, because many people may find defeat (eg, getting killed in a shooter game, crashing the car in a racing game, or the enemy army wiping out yours in a real time strategy game) very discouraging.

All this makes entertainment software probably the most *intense* experience of all entertainment products. While music and movies can also be highly involving, and the consumer can experience “flow”, the total focus whereby nothing else is noticed, they are passive entertainment. Even entertainment products with some degree of interaction, such as between a sporting team and the crowd in the stands, or between the singers and the crowd at the concert, still are not *continuously interactive at the individual level*. Thus, entertainment software, which is continuously interactive at the individual level, would arguably have involvement that is more intense. That is, while some consumers may be also greatly concerned with their music or movies, the combined set of the four factors above, greater interactivity and time spent, higher expense, and greater skill development, arguably makes entertainment software more involving, though this issue requires empirical test in future research.

In sum, the entertainment software industry’s size and distinctive properties make it important for study, as does its strong growth trend, which points to incredible size in the future.

Interestingly, in terms of academic discipline development, while the movie industry itself is rarely addressed in the marketing or strategic management literature, it has been deemed important enough to have generated its own academic discipline, “film studies” (often combined with TV as film and media studies). However, this literature is closer to literary studies with

some focus on the production of product, and rarely so far uses analytical perspectives from the business literature. University degree courses in entertainment software are beginning to arise; perhaps an academic discipline or sub-discipline in entertainment software will develop over time.

Key Aspects

Publicly available empirical research on entertainment software is rare. Perhaps the fundamental problem, as put by Michael (<http://grandtextauto.gatech.edu/>) in his April 5, 2005 blog report on an Academic-Developer session at the 2005 Interactive Digital Games Association Conference is: “The game industry currently doesn’t believe in ‘game research’. You’re either working on a shippable product, or you’re bulls****ing around”. Nevertheless, there are a few sources, mostly in summaries of findings of commercial research. Care must be taken over a) industry definitions (as mentioned above), b) regional coverage (eg, USA only, Europe, global), and c) how current the data is, as the entertainment software industry is rapidly changing. Nevertheless, a number of important points about the entertainment software industry can be presented, some of which must be inferred from industry statistics and developments.

Benefits Sought

It all starts with understanding the consumer. The scholarly literature has not covered this in detail. The game industry trade literature (eg, major game websites such as Gamespot, Gamespy, IGN [Internet Gaming Network]) reviews each game and reports on new and upcoming developments, but speaks little of consumer behavior. Thus, the most fundamental question is still unanswered: *why do people buy entertainment software?* A Google search on the simplest phrasing of the basic question, “why do consumers buy video games”, returned zero web pages. The same idea could be phrased differently of course, but it is disappointing that not one single such reference could be found in the 8 billion web pages in Google’s database (April 2005). A similar search on that phrase in ABI/Inform Proquest across also returned zero instances.

A Google search on “benefits sought” and “video games” retrieved 42 items (April 2005), but all had only casual mention of video games. A similar search on “benefits sought” and “computer games” retrieved 34 items. Again, different terms could conceivably be used to report on this same thing, but it is noteworthy that those standard terms find not a single empirical study of benefits sought for entertainment software. In sum, the consumer behavior of entertainment software is still barely understood.

Demographics

We now report on some fairly basic empirical evidence about entertainment software consumers that can be pulled together. First of all, who uses entertainment software? At least 50% of all Americans aged six and older play entertainment software (www.idsa.com/pressroom.html). This is a surprisingly broad consumer base. Looking in more detail, what is the average age of the entertainment software consumer? While mostly associated with young people, those young people are growing up and the increasing penetration of the population is drawing in more players in their 20s and 30s. The average age of players is already 33 years old (ESA 2006). Thus, *the image of entertainment software as kids’ games definitely has to change*. This may have important implications for benefits sought.

Segmentation

A broad market needs to be segmented, another one of the fundamental points of management. What is the state of *segmentation* practice within the gaming industry? Let’s start with a market research report on the entertainment software industry. These are rare to be in the public domain. Michael Gartenberg, Vice President and Research Director, Jupiter Research, gave a presentation at the “IGDA Developer Business Summit 2004 Game Developers Conference” on the topic of “Industry Snapshot: Stats and Metrics.” He spoke to the issue of “How is the Gamer Audience “Really” Segmented?...”:

Jupiter has done a significant amount of research to re-segment the gaming consumer. Currently game companies use rather simple segmentation schemes to target consumers. Consumers are typically segmented using metrics such as: genre, gender, age, region, and

platform. These forms of segmentation do not truly uncover the habits of video gamers. In order to address this inadequacy, Jupiter segmented the gaming consumer by dollar spending and time spent playing games. “Barely Gamers” (34%) spend little money and time on games, while “Thrifty Gamers” (16%) spend little money but a lot of time gaming. The “Status Gamer” segment represents 21 percent of the customers. These gamers typically spend more money but less time on video games. The “Ultra Gamer” segment (29%) which is the most targeted today spends a large amount of money and time on games. Clearly the latter two segments provide the greatest opportunity for game publishers because they generally spend the most money on games.

This quote suggests that segmentations practices in the industry are quite simplistic. Yet, even Jupiter Research’s segmentation of game play time versus game money spent is a very basic segmentation scheme. One of our most recommended segmentation procedures in marketing principles textbooks would be whenever possible to segment on the benefits sought (Haley, 1968), as different segments may prefer different benefits. This is the most direct and most actionable segmentation scheme, as then those benefits can be delivered to the targeted segments. It shows the early state of research on the entertainment software industry that a benefit segmentation is not yet publicly available. Thus, we return again to the situation that the basic question, “what do consumers want?”, remains unanswered. This will have to be the primary research need from a scholarly and research practitioner perspective.

Violent Content?

Another mistaken image is that entertainment software is generally violent action games. There has been some entertainment that has received attention for violent content (eg, Mortal Kombat, Grand Theft Auto, Doom, Half-Life). Are these the exception or the rule? One insight can be seen from looking at two demographic issues. As we saw, in terms of age, the average age is roughly 30 years, and older game players are less likely to prefer violent action games. The direct proof that entertainment software is not dominated by intensely violent games is in genre preference data, to follow, ie, most entertainment software sales is not in genres associated with violence. In terms of games produced, only 17% of all game titles sold in 2004 were rated “Mature” by the Entertainment Software Rating Board. A Mature rating as defined by the Entertainment Software Rating Board “may contain intense violence, blood and gore, sexual content, and/or strong language” (http://www.esrb.org/esrbratings_guide.asp#symbols). Finally,

the all-time best-selling brand of computer game is the one known for having no violence at all: The Sims. Another mitigating factor against dominance of violent content is in the following demographic issue, women and games.

Women and Games

Not so long ago the games industry did appear grim for women, according to the report "Girls and video games," (1999):

Video and computer games have long been designed and marketed primarily to male consumers, who make up about 89% of the console market and 94% of the gaming magazine market. This is evidenced in widespread aggressive and violent themes, which reflect boys' traditionally aggressive play. One study found that 40 of the 47 top video games from Nintendo were violent. Another study revealed that 92% of arcade games had no female roles, and of the 8% that did, 6% were "damsels in distress" and only 2% had active (rather than passive) roles. Video game advertising has also lacked female representation; game packaging usually pictures boys, not girls.

Since then, women's participation in the entertainment software market may have skyrocketed, to where in 2005 43% of game players are women (2005 Essential Facts, Entertainment Software Association). There is some inconsistency among the statistics, though, as the New York Times reports in 2004 "According to the NPD Group, a market research firm based in New York, some 81 percent of video-game players are male." Perhaps inconsistencies are due to varying industry definitions.

Jupiter Research claims adult women and female teenagers have distinct genre preferences. "Jupiter analyzed genre preferences and determined that there is also a distinct opportunity to target the underserved market of female teenagers. Genres that are most heavily preferred by this segment include Parlor Games, Simulation, and Arcade style games. Another underserved market is that of female adults who prefer the Board/Card/Puzzle, Action/Adventure, Arcade, and Simulation genres" (Gartenberg 2004).

Playscape's research on women and computer games does address benefits sought but has an unusual finding: "What do women love about computer games? Not so long ago the answer would be: They don't! Our research shows that women play in order to:

- Have a short break
- Learn new things
- Get some personal input
- Experience something beautiful"

(http://www.playscape.dk/morgana/b_womenandcomputergames.htm, April 2005). These benefits sought would be radically different from what most observers would mention if they were to speculate on entertainment software consumers' benefits sought.³

Game Genres

Game genres can represent a simple proxy for benefits sought. Game genre market share represents behavioral measures of benefits sought. Grossly violent games (eg, shooters) do not dominate the genre league tables. According to the Entertainment Software Association, the top-selling video console game genres are: Action (30.1% of game units sold in 2004), Sports (17.3%), Shooter (8.7%), and Racing (11.1%) (Source: 2006 Essential Facts, Entertainment Software Association).

Computer game genre preference is *very different* from video game genre preference. For computer games: Strategy (30.8%), Family/Children's Entertainment (19.8%), Shooter (14.4%), and Role-Playing (12.4%) (2006 Essential Facts, Entertainment Software Association). Thus, the top genre is quite different for each platform: Action (consoles) versus Strategy (personal computers). A speculative interpretation that is somewhat crude but should be openly discussed is whether computer game players are more, for want of a better term, intellectual than video game players, thus preferring strategy to action. Perhaps this is because computer expertise is required for playing computer games, and computer experts prefer to play games on their powerful PCs. Video games are easier to operate (simply insert cartridge/disc into console), whereas computer games can be fidgety (identify if your computer has the necessary hardware required, run install procedure, set options, update with patches from internet, resolve any

technical problems such as crashes). Perhaps there is a connection to demographics, with computer games more likely to have older, more highly educated, and higher income players than video games. Furthermore, computers have a tradition of Family and Children's Entertainment software (eg, the Carmen Sandiego learn geography software series) that doesn't exist on video game consoles. Yet, at the same time Shooter games are more popular on PCs than on video consoles (perhaps representing the incredible popularity of Half-Life, a PC only shooter at the time).

There is also no consistency of game genre typologies. Different game genre typologies are used in the literature and on the web. In part this is because all game genre typologies are only approximations. The Entertainment Software Association typology of nine genres is a good starting point: action, adventure, fighter, role-playing, strategy, racing, shooter, sports, family & children's entertainment. However, this typology is not exactly same as that in Gamespot or Gamespy, and is obviously very different from the simple four way online typology by Kim et al above.

Conceptual consistency of types within a typology is desirable. The Entertainment Software Association game genre typology contains a type that seems conceptually incompatible with its other types: "Family & Children's entertainment." This type is defined by target segment, rather than property of the game, which is not ideal. The Children's entertainment category, though, is hard to otherwise describe, so we do not recommend changing it. The Family entertainment concept, though, should be changed to be a game type. We believe the term Puzzles is the closest approximation for this type of game. Many of these are short and nonviolent, such as Zuma, which is an action puzzle involving shooting marbles to clear the board of other marbles, and may be more popular with women. These games are different from conventional action games, such as the best-selling Grand Theft Auto, which involves violent action. These terms, Puzzle and Games for Kids, are used in Gamespot's game genre typology.

Furthermore, two very different types of strategy games are combined together into a single strategy type. For example, both The Sims and Total War (Rome: Total War, Medieval: Total War) brands involve strategy, but one is fundamentally a "people management game" and the

other fundamentally a war game. The management of people in real-world settings or businesses in real-world settings is actually a thriving genre. Not only is The Sims brand the #1 best-selling computer game of all-time, but other management strategy games such as Roller Coaster Tycoon are also big sellers. Management strategy does not include any combat and often is about people, making them happy, and their social interactions. Thus, management strategy games are very different in spirit from combat strategy games. Management strategy games may have more appeal to women. Therefore, we suggest breaking down the single strategy genre into “strategy” (with its traditional meaning of real-time-strategy such as Total War and Starcraft) and “management” strategy (which will include The Sims and Roller Coaster Tycoon). Finally, since the massively multiplayer online type of game has many unique aspects and may become increasingly important, with the appeal of its hit game World of Warcraft (2.5 million online customers as of mid-2005), it deserves its own category. Table 1 contains our proposed typology, which based on the Entertainment Software Association but adapted as described above, along with available market share data per category.

Blockbusters and Sequels

It is surprising that the entertainment software industry has so quickly moved to the big budget *blockbuster game* focus similar to what occurs in the movie industry. This has coupled with a *sequels* focus, again similar to Hollywood, which leads to a blockbuster sequels emphasis. “Blockbuster games battle for 2004 crown,” according to a BBC news report (December 30, 2004). These include: Half Life 2; Burnout 3: Takedown; Grand Theft Auto: San Andreas; and Halo 2. The popular Final Fantasy series is now up to Final Fantasy XII. Sequels obviously represent *brand name leverage* to reduce consumer uncertainty in a complex and crowded product market. Some blockbusters are not sequels per se, but are other forms of brand name leverage, such as a movie, television, or book brand being leveraged (such as Lord of the Rings or Star Wars games). Early on in the entertainment software industry new game introduction was dynamic, perhaps because of lower costs of production and early adopter consumers were even more involved and willing to learn new games than today’s mass market. One of today’s laments is the plight of small independent development studios, which cannot match budgets with big game producers, a similar lament to the state of the movie industry. However, entertainment

software still has low cost platforms in emergent phases where independent developers can focus, ie, mobile phone games, and web and downloadable games.

Handhelds Popularity

Let us not forget about the surprising popularity of handheld games. An extraordinary development is that portable games (eg, Nintendo Game Boy Advance) sell about as much as computer games in the USA: \$1.2 billion for computer games in 2004 versus \$1.1 billion for portable games. This implies that *convenience*, a major attribute of portable games (eg, you can play them just about anywhere), is a major benefit sought. The large size of the handheld market has attracted Sony to make a major strategic venture into this market which has long been totally dominated by Nintendo. The launch of the Sony PSP (PlayStation Portable) in 2005 will lead to an epic marketing showdown with the Nintendo Game Boy Advance and Nintendo Game Boy DS.

Conclusion

In sum, a stereotypical picture of the entertainment software industry might be boys hunched over a console game and shooting, slashing, or punching whatever they meet onscreen. In reality, the entertainment software market is quite diverse demographically. The average age of players is now thirtyish. There is also a wide diversity of genres. There remains a huge gap in our knowledge of this industry over the most basic question: what do consumers want? However, the entertainment software market is too diverse to have benefits sought aggregated over all consumers. Another very fundamental marketing principle is poorly understood in the entertainment software industry: segmentation. How is the entertainment software market really segmented? Specifically, what is also sorely needed is benefit segmentation, not demographic or even genre segmentation (as preference segments such as genre segments are outcomes of benefits sought, not causes of product purchase). The huge genre preference difference between computer and video game players also needs further explanation.

Given the entertainment software market's size, distinctiveness, and the many aspects and issues that are not well understood, entertainment software would seem to have grown its claim on our attention. If we turn our perspective around and ask why is entertainment software not already bigger than the total movie industry, and why is its market penetration not as broad as that of movies or television, we may opportunities to overcome roadblocks and further accelerate entertainment software industry growth. Perhaps there is something inherent in the nature of entertainment software that limits its mass appeal, such as the higher difficulty level (than watching movies or TV), longer hours typically required, higher cost, and overall greater intensity. On the other hand, better understanding of benefits sought by different segments could lead to entertainment software product tailored more closely to what different segments want, including better positioning to new and as yet unserved or underserved segments.

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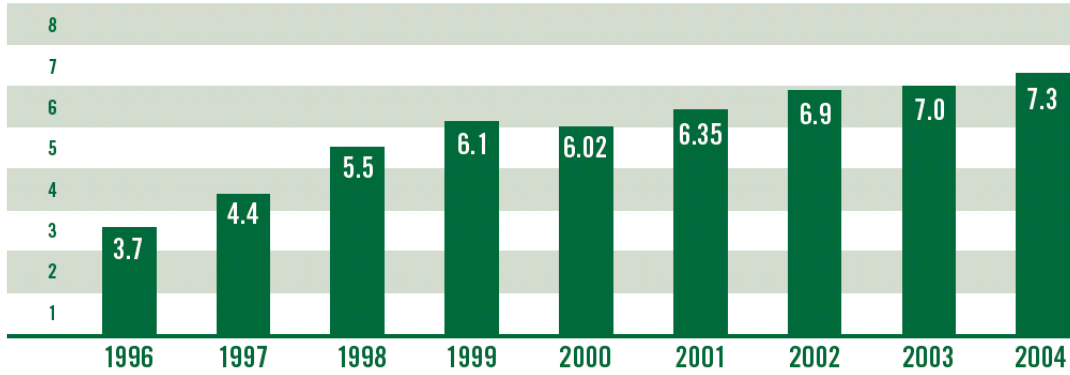
Accepted April 2006.

References

- 2005 *Essential Facts about the Computer and Video Games Industry* (2005), Entertainment Software Association, <http://www.theesa.com/facts/index.php>.
- BBC NEWS (2004/12/30), "Blockbuster games battle for 2004 crown," <http://news.bbc.co.uk/go/pr/fr/-/1/hi/technology/4091959.stm>, accessed April 2005.
- Braun, C. & Giroux, J. (1989), "Arcade video games: Proxemic, cognitive and content analyses," *Journal of Leisure Research*, Vol.21, Iss. 2; pg. 92.
- Business Week* (May 17, 2004), New York.
- Dee, J. (December 21, 2003), *New York Times Magazine*.
- Dixon, G. & Karboulonis, P. (1999), "Global marketing of leisure software: a case study of Asian countries," *International Marketing Review*, Vol. 16, Iss. 4/5; p. 299.
- Durgee, J. (1984), "Making interactive products come alive," *The Journal of Consumer Marketing*, Vol.1, Iss. 4; pg. 29
- Friedman, H., Weingarten, P., Friedman, L., & Gallay, R. (1982), The Effects of Various Price Markdowns on Consumers' Ratings of a New Product, *Journal of the Academy of Marketing Science*, Fall. Vol. 10, Iss. 4; p. 432
- Gartenberg, M. (2004), "Industry Snapshot: Stats and Metrics" in IGDA Developer Business Summit 2004 Game Developers Conference, eds. Douglas M. McCracken Jr., and Sharon A. Richardson, IGDA: USA.
- "Girls and video games," Issue Brief Series. (1999). Studio City, CA: Mediascope Press.
- Grover, R. (February 28, 2005), "Game Wars Who will win your entertainment dollar, Hollywood or Silicon Valley?," *Business Week*.
- Hafner, K. (October 14, 2004) What Do Women Game Designers Want? *The New York Times*.
- Haley, R. (1968), "Benefit Segmentation," *Journal of Marketing*, 32, 30-35.
- Hsu, C.-L., & Lu H.-L. (2004) "Why do people play on-line games? An extended TAM with social influences and flow experience," *Information & Management*, Sep. Vol. 41, Iss. 7; p. 853
- Ip, B., & Jacobs, G. (2004), "Territorial lockout - an international issue in the videogames industry," *European Business Review*, Vol. 16, Iss. 5; p. 511
- Kim, K. H., Jin, Y. P., Dong Y. K., Hak I. M., & Ho C. C. (2002), "E-lifestyle and motives to use online games," *Irish Marketing Review*, Vol. 15, Iss. 2; p. 71
- Levitt, T. (1960), Marketing Myopia, *Harvard Business Review*, July/August.
- Lowenstein, D. (2004), E3 2004 State of the Industry Address, http://www.theesa.com/archives/2004/05/e3_2004_state_o_1.php
- Marketing Week* (Dec 9, 2004), "And it's game on for the Christmas hit-list," pg. 28
- Nelson, M. (2002), "Recall of brand placements in computer/video games," *Journal of Advertising Research*, Mar/Apr. Vol. 42, Iss. 2; p. 80

Figure 1

U.S. COMPUTER AND VIDEO GAME DOLLAR SALES GROWTH
DOLLARS IN BILLIONS



Source: 2005 *Essential Facts*, Entertainment Software Association

Table 1
Game Genre Typology

	Emphasis	Examples	Market share Console*	Market share PC*
Action	Action, may be violent	Grand Theft Auto, God of War	30.1	3.9
Adventure	Discovery, exploration	Myst, Syberia		5.9
Kids	Aimed at kids, may be edutainment	Barbie, Disney, Carmen SanDiego,	9.5	20.3
Puzzle	Abstract, short, solve puzzles	Tetris, card games, mah jong, Zuma, Luxor		
Fighter	One on one combat, often hand-to-hand in an arena	Mortal Kombat, Tekken	5.4	
Racing	Automobile racing	Gran Turismo, Need for Speed	9.4	
Role-Playing	Role-playing, usually your character slowly gains in experience and resources over time	Neverwinter Nights, Star Wars Knights of the Old Republic	9.0	10
Strategy	Command a nation or army, defeat enemy nation or army, usually real-time but sometimes turn-based	Age of Empires, Total War, Rise of Nations, Starcraft		26.9
Management	Manage people in realistic settings, manage businesses in realistic settings	The Sims, Roller Coaster Tycoon, Trainz		
Shooter	Use your gun to kill enemies, one by one, typically first-person view	Halo, Half-Life, Doom, Call of Duty	9.6	16.3
Massively Multiplayer Online	Centrally hosted game with a persistent, always available online world; player interaction	World of Warcraft, Everquest		
Sports	Simulates real-world sports	Madden Football, Tiger Woods Golf	17.8	5.4
Other	Smaller genres	Board games such as computer Monopoly		

*Market share data source: *2005 Essential Facts*, Entertainment Software Association. Note that Kids/Puzzle and Strategy/Management market shares are combined in this source.

Endnotes

¹The focus is on the game industry environment, game market, and game consumers, as opposed to game development, game design (ludology), or game narrative analysis. Games fall under the leisure studies domain, while marketing focuses on consumers and strategic management focuses on how to compete in a industry environment.

² Entertainment products is a potentially very broad category, so we define here the term “regularly purchased entertainment products.” These include movies, videos, music CDs, entertainment software. They are frequently purchased, but the term “frequently purchased” connotes supermarket products like milk that are purchased weekly, whereas these products are typically not purchased that frequently. Long periods of time, months, can pass before there is another purchase. These products are importantly distinguished from infrequently purchased entertainment products such as the video console hardware or a dedicated home pinball machine.