

The Truth About Baby Boomer Gamers: A study of over-forty computer game players

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Abstract

This paper describes a study conducted in the summer of 2006 aimed at exploring the play patterns and lifestyles of gamers who fall into the loose demographic of “Baby Boomers,” typically defined as people born between 1946 and 1964. This independent study, including over 300 participants, combined quantitative and qualitative techniques in order to paint a multi-faceted picture of the gaming lifestyles and tastes of this under-studied population. The study findings show that Baby Boomers comprise a vibrant video game audience, that they are devoted players, and that they have distinct needs and interests that have gone ignored by the both mainstream game industry and the game press. They also provide some detailed data about their play styles and gaming interests, the role of gaming in their larger media mix, as well as specific case studies that paint a nuanced portrait of this understudied and underserved audience.

Introduction

The purpose of this study was to explore the play styles and preferences of the “Baby Boomer Gamer,” roughly stated, the over-forty player of video and computer games. 2006 was noted as the year that the oldest people within the “official” Baby Boomer window of birth dates between 1946 and 1964 began turning sixty. (Census Bureau, 2006b) There has been much made of the ramifications of this on the social security and retirement systems in the United States, as well as issues such as health, and the care of aging parents. However, given the American obsession with youth, less attention has been paid to this demographic as an entertainment market, and still less to its role in the rapidly changing video game landscape. One notable exception is Nintendo, which, as will be discussed presently, has taken a radical departure from standard game industry practices by specifically targeting this generation for its new products.

The impetus for this study arose out of my previous research involving refugees from the online game *Uru: Ages Beyond Myst* (Miller, 2003), which closed in February of 2004, and was re-launched in February 2007 as *Myst Online: Uru Live* (Miller, 2007) under the auspices of the online subscription service Gametap. The initial study was done under the auspices of a doctoral thesis (Pearce, 2006) and comprised an 18-month ethnographic study of a group of 300 Uru refugees who had immigrated to the virtual world *There.com*. (There & Makena Technologies, 2003) Because the majority of players in this group fell into the Baby Boomer demographic, I wanted to do a follow-up study to delve further into the larger digital gaming practices of this population. I designed and executed this independent study in order to understand the basic play patterns and preferences of Baby Boomer Gamers, including what types of games they like to play, as well as how they play, and with whom. The study also explores where and how Boomer Gamers learn about and buy games, as well as their own comments and insights about what’s missing for them from the current gaming landscape.

The study was somewhat narrow in scope, taking place from May through June 2006, and was conducted as a solo research project. The sampling of study participants included a total of 313 players between the quantitative and qualitative portions of the study, a small figure but considered statistically significant for this type of research. Participants (primarily American, some European and some from Australia and New Zealand) were selected on the basis of being self-identified as “Baby Boomer Gamers.” No comparison studies were made with players in other age groups, or with Baby Boomers who do not identify as gamers. One of the challenges of finding study participants is that the Baby Boomer Gamer is difficult to

reach; there are a small handful of mostly fan-run web sites catering to this demographic, but because they are so understudied, we know very little about where and how to capture their attention. This study provides a few clues, but also suggests a sequence of larger, more comprehensive initiatives that might be conducted in the future, given larger teams and greater resources.

Methodology

The study comprised three parallel and concurrent activities. The concept was to use mixed qualitative and quantitative methods and the analysis technique of “crystallization” (Janesick, 2000; Richardson, 2000 (c.1994)) to paint a multi-faceted portrait of the play patterns and preferences of the Baby Boomer Gamer.

These three parallel research tracks comprised:

- **Background Research:** Background research on the overall demographics of Baby Boomer Gamers, including their role in the video game market, as well as a literature search, including online materials, and a survey of popular press, academic publications, and fan web sites.
- **Quantitative—Online Survey:** A quantitative survey was designed to cover a broad array of questions concerning Baby Boomer Gamers, their lifestyles, play patterns and preferences. A total of 271 players participated in this online survey, which consisted of 68 questions. The survey was created using Zoomerang and deployed through a number of fan communities known to include Baby Boomer Gamers.
- **Qualitative—Interviews & Discussion Groups:** Individual interviews and discussion groups were conducted with a small sampling of 22 targeted “over forty” gamers, most of whom had participated in previous research. These players from the original *Uru* study and from *There.com*, as well as individuals contacted through web sites and forums targeting Baby Boomer Gamers. Interviews were conducted in various formats, including phone and e-mail; group discussions took place in-game (inside *There.com*) or via group forums.

Boomer Gamers?

For most people, the concept of a “Baby Boomer Gamer” seems to be both an oxymoron and anathema to conventional wisdom about video game players. Yet an increasing number of studies are beginning to paint a different picture, with women over forty repeatedly outpacing all other groups as the fastest growing gamer population. This is just one of many indicators that the impact of the Baby Boomer population on the gaming landscape is growing.

According to the 2005 annual report by the Entertainment Software Association (ESA), which represents game publishers, half of all Americans are playing video and computer games. Of those, 25% are over 50 years old; another 45% are between 18 and 49 (although no further breakdown is provided in this age bracket); 30% of game players are women 18 or older; and the average age of the most frequent game purchaser is 40. (ESA, 2006)

To put this in context, it’s helpful to look at the larger demographic picture: According to the U.S. Census Bureau, the total U.S. population is estimated to be around 300 million, of which 78.2 million were born between 1946 and 1964. In other words, 26% of the total U.S. population consists of Baby Boomers. (Census Bureau, 2000) If we compare these figures to the ESA’s numbers on gaming above, it would appear that the percentage of game players who fall into the Baby Boomer demographic *equals or perhaps even exceeds their percentage of the overall population.*

Some of the details of the ESA study are also revealing. For instance, 35% of parents play video games; 47% of gamer parents are women. Among gamer parents, 80% report playing games with their children; 66% felt that playing games with their kids brought them closer. The study also found that the average gamer has played for 13 years, with many reporting as many as 20 years of game-playing experience. (ESA, 2006)

The ESA also reported data in 2006 that suggested that the video game industry was entering into a slump; 2005 saw the first drop in sales in over a decade (down by 21.5 million units from 2004), in an industry whose total sales have more than doubled since 1997. Is it possible that the video game industry is missing an important new trend? Could it be that gamers are growing up, leaving the mainstream game industry behind? Here are some other research nuggets to help us unpack this situation:

Most game industry experts agree that the casual game space is the fastest growing sector of the video game industry, and over forty players are the contributing factor to their success. A study conducted in 2004 by Digital Marketing Services for AOL Games (Vance, 2004) brought to light the following:

- Of those who play games on the Web, women over 40 play most often and spend the greatest number of hours per week doing so, beating out both adult males and teens of both sexes.
- Adults are more likely than teens to play online games every day, and more adults than teens have stayed up all night playing games on the Web.
- Even though men spend more time on the Internet each week than women (23.2 vs. 21.6 hours), female game-players over 40 spend the most hours per week playing online games (9.1 hours or 41 percent of their online time vs. 6.1 hours - 26 percent of their online time - for men). These women were also more likely to play online games every day than men or teens of either gender. The social aspect of online games was cited as one of the primary keys to their appeal.
- According to Matthew Bromberg, General Manager of AOL Games who sponsored the study, "While teens and young men have the reputation of playing games for hours on end, the reality is that it's their mothers who are far more likely to exhibit this type of behavior - just with different games. Women today juggle more responsibilities than ever, and online games provide a great outlet to relieve stress, interact with a community, and just have fun - all according to their own schedules." (AOL, 2006)

Game Designer Jason Nelson-Brown has also written a series of articles on designing for the over-30 gamer. He posits that older gamers are more challenging to design for as they tend to be more diverse and have more gaming experience than younger gamers. One hook for this demographic, he says, is the power of memory and nostalgia—returning to or referencing classic games or stories can be a strong attractor. He also recommends more complex or exotic elements as a way to keep the interest of older players. (Nelson-Brown, 2006)

Boomer Gamers in the News

Traditionally, Baby Boomers have been generally ignored by the game industry. (Morris, 2006) However, the past two years have shown a small shift in attention to this demographic. Japanese game giant Nintendo has taken the lead here. A record 20% of Japan's population is now over 65, and this number is expected to rise to 30% by 2025. Recognizing a potentially lucrative untapped market, Nintendo partnered with Dr. Ryuta Kawashima, a neuroscience researcher at Tohoku University who discovered a correlation between reduced symptoms of dementia and other age-related brain disorders and playing certain types of mentally challenging games. (Fuyuno, 2007) The resulting game series, the first of which was released in the U.S. in 2006 for the Nintendo DS portable gaming system under the title *Brain Age*

(Kawamoto, 2005 (U.S. Edition 2006)) has been a smash hit. The inaugural title reached 4 million worldwide sales within its first year. (McCurry, 2006; Nishiyama, 2006; Surette, 2006)

Nintendo also surprised its competitors in 2006 by taking a radical departure from conventional wisdom on the release of its new console, the Wii (formerly Revolution.) Rather than taking on the competition by amping up its graphics, Nintendo opted instead to bank on new game mechanics and a new interface paradigm. While the Wii's guts are similar to its prior generation console, the GameCube, its innovation is in its new wireless, remote-control sized gesture based input device. Nintendo's advertising campaign, which features players of all ages, including older adults, playing together, suggests a broadening audience building on the success of its *Brain Age* games. Early observers conjectured that the introduction of this interface, which is much easier to use than the typical thumb-centric game controller, suggested that Nintendo was placing its next-generation console bets on the "non-gamer" market, including older players, Baby Boomers, and women. (Grossman, 2006) More recently, Nintendo has openly revealed this strategy, distinguishing itself as the first video game company to host a booth at the annual American Association of Retired Persons conference. (Taub, 2006) Wii systems are now beginning to show up among the recreational fare at retirement homes. (Reuters, 2007; Taub, 2006; Wischnowsky, 2007)

From a sales perspective, Nintendo's strategy appears to be paying off. As of April 2007, the Wii had taken the lead in new console sales. As Business 2.0 contributor John Gaudiosi put it "Instead of joining Sony and Microsoft in the arms race to pack their consoles with ever-higher-performance graphics chips (to better attract sophisticated gamers), Nintendo built the Wii--a cuddly, low-priced, motion-controlled machine that broke the market wide open by appealing to everyone from grade-schoolers to grandmas." (Gaudiosi, 2007)

Review of Academic Research

A search of the U.S. academic literature on Baby Boomers and older gamers yielded zero results on this topic. Age-specific games research is usually targeted to children or teens, sometimes even specified as being the children of Baby Boomers. Much of the early games research revolved around the proverbial (and still unresolved) question of whether video games inspire real-world violence in children. More recent research has focused on the potential educational and neurological benefits of games, primarily to children. (Gee, 2003; Johnson, 2005) With the exception of Kawashima, cited above, few researchers have taken on this subject. Some academic research on casual games has also paralleled the study cited by AOL earlier and turned up similar results, noting the domination of older and female gamers in this genre. (Griffiths, Davies, & Chappell, 2003) Qualitative research that is inclusive of this demographic, particularly within the massively multiplayer online role-playing genre, has also provided additional insight. (Nardi & Harris, 2006; Pearce, 2006; Taylor, 2003)

Forums and Fan Sites

One of the key challenges of this research was tracking down the Baby Boomer Gamer. As is often the case, online fan sites turn out to be the best source of information about this audience. A small handful of sites that cater specifically to "older gamers" include The Older Gamers aka TOG (www.theoldergamers.com), 2old2play.com, and gamegeezers.com. These sites define "older gamer" as over 25 years of age. Examples of other sites that include Baby Boomers in their target audience are AdventureGamers.com, MysteryManor.com, Spyglassguides.com, FourFatChicks.com, SeasonedGamers.com and Mr. Bill's Adventureland. The only site I was able to locate that targeted Baby Boomers specifically was GameBoomers.com, a site created by and for Baby Boomer Gamers, but open to anyone with shared interests, primarily in adventure games. I was originally introduced to this group through *Uru*, where they hosted a GameBoomers "hood" (the equivalent of a guild in other games.)

One of the patterns observed on all of these sites was the desire for more "mature" gaming companions. As one TOG member put it: "I was so tired of playing a game and having to deal with the immaturity of a

lot of the others playing.” A female member “joined TOG due to the number of rude kids I was forced to play with in *America’s Army* [an online game produced by the U.S. military.] I was told ‘girls shouldn’t play this game.’ I changed to BF2 [Battlefield 2] and joined TOG and have been supremely happy.” Another female player reported being told in Battlefield 2 by another player: “no chicks.” (Tadros, 2006) Gender stratification is common in online games, and harassment by young men or teens, either sexual advances or discriminatory comments, is common. Gender is not the only criteria for discrimination. One TOG member told a story of starting an *Unreal Tournament 2004* Clan consisting primarily of over-30 ex-military. After winning nearly every tournament, the clan was told not to enter anymore because “tournaments are for kids.”

In addition to inclusiveness and tolerance, players seek companions who understand when real life intervenes, such as one father who said, “When I have to bow out in the middle of a tourney [tournament] because my little one needs to be fed or changed.” A yearlong TOG member said, “Working 50 hour weeks and raising two kids, TOG is one of the few social contacts I have time for and enjoy. Indeed some fellow TOGers I consider family. Where else can I chat or Frag [battle] for a few hours most nights (after the kids have gone to bed)? Where else can I enjoy a game with friends at midnight? Where else can I ask stupid questions and ignore my stats [statistics] without being looked at as a lesser player?”

Contrary to the popular stereotype of the unmarried, childless, isolated nerd, for home-bound child-rearing parents, online games and game communities may actually serve to expand their social lives, taking the place of bars, clubs and cafés. Thus, a common theme of TOGer posts was that “playing with like-minded individuals has enhanced the enjoyment I get from all the games I play.”

TOG had about 10,000 members at the time of this study, most of whom were based in Australia and New Zealand. A survey by TOG of its members showed the highest concentration of participants to be in their late twenties and early thirties, with the average age being 37.18. With a spike at 40 (tying for second place with 33), age representation tapers off precipitously to the maximum age of 70. Interestingly, there is a dip of 0 between the ages of 59 and 65, after which a small bump can be seen in the final five-year stretch.

Founded in June of 1999, GameBoomers is a community web site primarily targeted to Baby Boomers with an interest in single-player adventure games, but part of its ethos is one of inclusion, so all gamers and all game preferences are welcomed in its “About Us” statement. One of its co-founders, Jan Christoe, said in an e-mail interview that the site’s motto in its early years was “The Internet’s friendliest gaming community.” Even with its narrower purview than TOG, GameBoomers had over 15,000 registered members at the time this study was conducted. The site’s history has its impetus in a particular historical moment that seems to resonate with this market segment: the so-called “death of the adventure game genre.” (Bronstring, 2003) This is generally described as having taken place in 1997, and according to a co-founder of indie developer Telltale Games (also interviewed for this study), was marked by the cancellation of a number of adventure games in progress by major developers such as LucasArts.

One of GameBoomers’ main services is to provide Boomer-oriented reviews and news of adventure games both new and old. Most PC game review magazines and web sites tend to focus on the hardcore gamer audience, primarily covering newer games that publishers are actively marketing. These reviews tend to revolve around game mechanics, features, weapons, comparisons to other games in the same genre, and technical aspects of the game. Conversely, GameBoomers’ editorial content reflects the differing priorities of its audience. Reviews include both new games and older releases, and tend to focus on story and character, detailed descriptions of puzzle types (without revealing any “spoilers”), challenge levels, and descriptions of visual design. Unlike traditional game reviews, which tend to valorize photorealistic graphics and high-tech aesthetics, GameBoomers’ reviewers and readers tend to favor graphical styles that are either artistic or cartoon-like. GameBoomers also compiles top-ten lists of

players' and reviewers' favorite games. These lists include the *Myst* series, *Agatha Christie*, *Nancy Drew*, *Sam & Max*, *AGON*, *Dreamfall*, *CSI* and *Martin Mystère*. It is interesting to note that two of these series are based on popular mystery novel series that Baby Boomers are likely to have read as children or young adults.

GameBoomers also reveals some interesting characteristics of Baby Boomer Gamers as consumers. One is a high level of developer awareness. GameBoomers frequently features interviews with developers popular with this audience. The site also showcases works-in-progress by indie developers, and announcements of new releases, such as the re-launch of *Uru Live*, are common, as well as advertisements and sponsorship from small developers who have a devout following among its readers. GameBoomers also features a section entitled BAAGS, short for "Buy All Adventure Games Syndrome," a testimony to the devotion of this demographic to beloved developers' and series. Companies such as Telltale games have taken advantage of this by selling many of their games direct to the consumer.

When asked what distinguished Baby Boomer Gamers from other player populations, co-founder Christoe pointed to an interest in classic point-and-click adventure gaming, with some significant or occasional interest in role playing and action games. Christoe also observed that older gamers often play games with their younger grandchildren, games that are more adventure/story and less action-oriented, a pattern that was reinforced in both the quantitative and qualitative components of this study. Older gamers tend to be less attracted to violent games, which might be more appealing to their teen children or older grandchildren; whereas adventure games tend to have an "all ages" ethos that makes them more appealing to both older gamers and younger children. Baby Boomers tend to be attracted to problem solving, exploration and communication (even with single-player games).

When asked what players can find on GameBoomers.com that is not available elsewhere, Christoe echoes the comments made by TOGers, above: "wisdom, maturity and a cordial response to questions," qualities perceived to be lacking from many sites that cater to younger gamers. So in addition to focusing on game genres that appeal to this demographic, the site also emphasizes a desirable social ethos that seems to be echoed throughout all levels of this research.

Study Findings

Overview

The following describes the major findings of the study. Part one represents the outcome of a quantitative online survey; part two presents the results of qualitative research in the form of in-game discussion groups, phone and e-mail interviews. The data procured through each of these methods is very different: the former addresses broader demographic numerical information, dealing with such issues as age and income; the latter provides more detailed narratives and opinions by players about their experiences. Together, these two data sets both compliment and crystallize one another, revealing a well rounded and multi-faceted first-look at the study subjects, and providing insight into broader trends that might be interrogated in either larger quantitative studies or follow-up qualitative research.

Findings Part I: Quantitative Research—Survey

Survey Overview

The survey was conducted using the Zoomerang online survey system between June 6 and June 26, 2006. Participants were recruited from community and forum sites catering to this demographic, such as GameBoomers.com, The Older Gamers and some of the sites mentioned earlier, as well as through existing networks of players from previous research with the *Uru* and *There.com* communities. Criteria for participation were being between the ages of 40 and 65, and self-identifying as a gamer.

The survey was narrow in scope and did not include gamers of other age groups or non-gamer Baby Boomers. Dissemination points for surveys are always challenging as they may lend certain biases to the data. Furthermore, it is well-known that female gamers are typically underrepresented in games research. (Mäyrå & Ermi, 2005; Pearce, 2006) Thus a special effort was made to improve female participation by targeting groups that are known to have a significant female representation. For instance, while GameBoomers.com does not actually collect data on its members' genders, 2/3 of its reviewers are female. Some survey participants were recruited from previously studied groups of *Uru* players that were 50% female. These figures also suggest that female representation among Baby Boomer Gamers may be particularly high.

About the Survey Participants

A total of 271 people took the survey, with 229 completing every answer. (The percentages quoted here are based on number of respondents to each question.)

57% of respondents were female, an usually high figure for a game survey, where 10% is a more typical number. The age window was opened up by four years on each end, to cover those born between 1940 and 1969. The chart below shows the age breakdown of survey respondents.

1940-1944	1945-1949	1950-1954	1955-1959	1960-1964	1965-1970
5%	15%	22%	18%	20%	20%

Across the core Boomer years, 1945-1965, the distribution of age is fairly even; this suggests that the survey covers a fairly balanced distribution of representative ages, although we cannot necessarily take this as any indication of the actual age distribution of Boomer Gamers in the population at-large without doing a larger study.

70% of respondents were from the United States, while 19% were from Australia or New Zealand, most likely due to the fact that The Older Gamers is based in this region; the balance hailed from Europe and

elsewhere. About half the respondents said they lived in a suburban area, with a little over a fifth residing in urban locales; the remainder lived in small towns or remote rural areas.

Most Baby Boomer Gamers are married and many have children at home; some also live with older relatives and grown children.

Contrary to the classic gamer stereotype, over two thirds of survey participants, 68%, reported being married or living with a domestic partner; 36% had children living at home, while 31% had adult children living out of the house. 14% of survey respondents said they had an older relative, such as a parent, aunt or uncle, living with them, and 8% had an adult child.

Older women are playing games.

A number of recent marketing studies cited in this report show women over forty as the fastest growing gamer population. Among casual gamers, they spend more time playing than any other market segment. Over half the participants in this study were female.

Baby Boomer Gamers have above average incomes, even for their demographic; over half are working full-time.

Survey participants reported household incomes significantly higher than either the national median (\$65,000) or the average for Baby Boomers (\$73,000.) (Census Bureau, 2006a; Hazel, 2002) Over 50% of survey respondents reported incomes of over \$70,000; about a quarter exceeded \$100,000. 55% of respondents reported working full-time, a combined 22% are working part-time or self-employed; 13% reported being retired.

The PC is the platform-of-choice for Baby Boomer Gamers; broadband is ubiquitous.

While the consoles are the most popular platform for games worldwide, virtually all of the Baby Boomer Gamers in this study—98%—use a PC as their primary gaming system. Less than 20% owned any other gaming system, and 83% cited gaming as a factor in their PC purchase decisions. 63% said they had made a purchased a PC peripheral or accessory in order to play a game. Less than 20% said they owned a console of any kind. 90% of respondents also had a broadband connection at home, 22% higher than the national average at the time of the study. (Nielson/NetRatings, 2006) These figures may be attributable at least in part to the income figures cited above. The retail price for a standard PC is typically about three times that of a game console; the high-end PC graphics card required to play typical games cited by these players can cost as much as a new console.

The “platform generation gap,” the “grandparent gamer,” and the “leapfrog effect.”

In addition to the preference for PCs, the study reveals a “platform generation gap” in which console and portable gaming devices in the household are considered primarily the children’s domain, while adults primarily play on PCs. A related phenomenon is the “leapfrog effect,” a pattern identified as a “grandparent gamer” playing computer games with grandchildren.

Baby Boomers have different early game experiences.

Unlike their children’s generation, which has grown up with gaming, Baby Boomers are more likely to have arrived at gaming later in life. 45% said they did not play their first game until they were twenty years old or older; of those 16% did not play their first game until after 40. 76% got their first game system after 20; 16% acquired their first game system after 40. Because many Baby Boomers seem to have arrived at gaming as adults, they may not have the same associations as players who began playing as children. Furthermore, the social and economic context of their early gaming was different. 28% of players said their first gaming experience was in an arcade; a fifth cited Pong as the first game they ever played, and games like Asteroids, Pac-Man and Space Invaders were also mentioned. A little over 12% cited *Myst* as their first game, a much higher figure than any other PC game listed. An interesting factor in Boomer Gamers experience is the practice of bundling software with computers, which was

commonplace in the early nineties. At least one survey respondent cited this as their introduction to games, and the subject of bundling also came up in the discussions.

Baby Boomer Gamers are avid and experienced fans who are highly developer and genre-conscious.

The Baby Boomer Gamer population represents an active and well-informed niche market with extensive gameplay experience. Study participants were avid fans who primarily focused on a single genre (88%), specific series (78%), specific studios (50%), or titles they knew and liked (44%.) 82% reported playing a favorite game multiple times. *Myst* and *Riven* were by far the most oft-repeated of any game cited. About a third of players in the survey had been a game beta tester at least once, 25% had done so multiple times.

Baby Boomers like adventure, roleplaying, action, and online games.

Based on the survey, Boomer Gamers seem to favor roleplay/mystery/adventure games, with 66% citing this as their favorite genre. About 60% of players said they greatly enjoyed action/shooter games, and another 60% liked casual/matching style games. 30% reported playing massively multiplayer games on a daily basis. Boomers in the survey tended to *dislike* fighting, racing and sports games.

Baby Boomers want an intellectual challenge and are less interested in reflexes.

80% of players surveyed said the thing they most enjoyed about games was their intellectual challenge, and many felt that this was what was lacking from the current game industry offerings. Many complained that mainstream contemporary games place too much emphasis on reflex challenges, which are either less interesting, or in cases of physical conditions or disabilities, more difficult and hence less enjoyable, for Boomers.

Baby Boomers like games with a story, creatively or technically advanced graphics.

The majority of Baby Boomers in the survey (74%) said they preferred games with a story. Players also cited high quality graphics, both artistically (73%) and technically (68%) as important features of games they liked. The preferred games listed in the survey also suggest a preference for games with a cartoony or artistic aesthetic over photorealism or high-tech art direction; they seem to prefer scenic beauty to sci-fi battlefield or apocalyptic scenarios.

Boomers like games that provide a sense of escape to another world.

Study participants said they wanted enjoyed games that took place in locales that stimulate the imagination (69%), have beautiful scenery (65%), create a sense of wonder (63%), and engender a feeling escape from the everyday (54%).

Multiplayer, Single-Player, Casual

With some overlap, respondents were fairly evenly balanced among those who liked single-player versus multiplayer games. 31% of respondents reported playing single-player games daily, with another 28% playing 3-5 times a week. 30% of respondents were playing MMOGs daily, with 14% doing so 3-5 times weekly. A smaller number, 22% of players, reported daily casual game sessions, and 13% said they played these types of games 3-5 times a week. This counters the industry stereotype that Baby Boomers are primarily playing casual games.

Baby Boomers like to explore, help newbies, solve puzzles; some also like shooting and combat activities, but an equal number seem to dislike these types of activities.

Exploring ranked highest on the list of Baby Boomer's favorite game activities (87%), followed closely by helping newbies (new players) (78%), puzzle solving (77%), questing (68%), and socializing (63%.) Combat and shooting activities were more controversial: 56% of respondents said they enjoyed shooting while 36% said they did not. A roughly equal number of players both enjoyed and disliked player-vs.-environment hunting (31% and 34% respectively), however player-vs.-player combat was much less

popular with 26% saying they enjoyed it versus 55% saying they disliked it. 50% of players also cited team *cooperation* as an enjoyable activity; but a lower percentage (24%) gave high rankings to team *competition*. Sports and vehicular racing were fairly unpopular with less than 20% saying they liked these (only 10% for sports), and over 40% saying they actively disliked them.

Baby Boomers just want to have fun—they less concerned about skills.

Boomer Gamers in the study did not cite skills acquisition as a major concern. Only 12% of respondents said they cared greatly about skills and wished to excel; the remainder, agreed with the statements either that skills were not important to them (31%), they liked developing skills but did not want to be pressured (29%), or enjoyed skills but were not driven to excel (28%). This echoes findings in the literature search, as well as qualitative study, that Baby Boomers, essentially, “just want to have fun,” are less interested in skills, and are looking for a fun play experience in a socially supportive environment. While further studies are necessary to unpack this, it is possible that skills and achievement in games are less important to older player, who may already have accomplished major achievements in their real-life careers.

Baby Boomers are spending anywhere from 10-40 hours a week playing.

Findings of this study suggest that Boomers are more “hardcore” gamers than other studies suggest. 28% respondents, the highest number, reported spending 20-40 hours a week gaming. About a quarter typically spend 10-14 hours a week playing games; on either side of this bump, 17% are playing for 5-9 hours per week and another 18% for 15-19 hours per week. 5% are gaming for over 40 hours per week. As a comparison, a number of studies have found that 20 hours appears to be average playtime per week for most MMOG players. (Castronova, 2001; Seay, Jerome, Sang Lee, & Kraut, 2004; Yee, 2001) Duration of play sessions may be where this group differs: 50% said their typical gameplay session lasted 1-2 hours, suggesting multiple sessions in a given day; 27% cited 3-4 hours as their average session time. Only 11% reported playing 5-hour sessions regularly, and even less, 9%, playing sessions less than 60 minutes. A surprising 28% of respondents admitted to having had a continuous game session of 12 hours or more.

Baby Boomers are readers.

Baby Boomers like to read, enjoy games that are based on books, and compared the slower pace of adventure games to reading. They are less likely to replace reading with gaming than other media activities. They are avid magazine readers, citing PC gamer (32%), Time Magazine (29%) and National Geographic (24%) among their top periodical picks.

Baby Boomer Gamers spend more times playing games than they do watching television and are more likely to displace television-watching with gaming than any other activity.

Boomer Gamers spend more time playing games than watching television, which is displaced by gaming more than any other activity. 76% of survey respondents said they frequently or often displace television watching with game-playing; another 41% said the same of watching movies at home and 38% percent frequently or often play games instead of going to the movies. Only 23% said the same of reading books and the same percentage of reading magazines. Participants were least likely to replace a hobby with gaming (18%). The chart below gives a picture of reported TV vs. gaming habits among survey participants:

	2-4 hrs/wk	5-9 hrs/wk	10-14 hrs/wk	15-19 hrs/wk	20-29 hrs/wk
TV-watching	15%	27%	22%	6%	5%
Gaming	8%	17%	25%	18%	18%

Baby Boomers play at different times, but primarily evening, sometimes late.

While 34% of respondents said they play on weekdays, a far greater number said they play at night and on weekends. Favorite game times included: after dinner (72%), weekend days (62%), or immediately after

finishing their workday (32%). Surprisingly, 41% of respondents reported playing games between 12:00am and 2:00am.

While Baby Boomers like to play alone, they are highly community-oriented and social; increasingly, they are playing online games.

While an overwhelming number of respondents (88%) said they primarily play single-player games by themselves, a similar number (80%) reported being part of a guild or gaming community. Only 17% said they play single-player games with a romantic partner, and 19% play with their children; 13% also said they play with friends. 52% reported playing multiplayer games with friends, and 65% reported having made a friend through online gaming. 33% reported playing online games with friends and family; 14% play online games over the Internet with a partner in the same room and 11% do the same with family members. In addition to being involved in gaming communities, 22% of respondents said they helped to administer game sites, forums or servers, 20% of survey had attended a game fan convention, and 17% had participated in creative activity, such as fan-art, or in-game fashion design, related to their gaming activities.

Boomers seek mature companions.

A number of fan-based web sites have been launched in response for the need expressed by Boomer Gamers for more mature companionship in their gaming communities. Even for single-player games, Boomers want courteous and friendly social interaction on web sites and forums. In forums and online games, many complained of being harassed by younger players, being made to feel stupid when asking questions, or being treated in a generally rude fashion. Some web sites, such as The Older Gamers, promote clan or guild creation to facilitate this need for mature companionship. In interviews and forum reviews, many Boomers expressed a desire for balance, and for a play community that understands that “real life comes first.” For players with children, they wanted to be assured their guild members would be sympathetic if they had to log off to attend to children, for instance.

Baby Boomers are buying games at retail outlets and online, as well as downloading; at least a quarter are buying used games.

While nearly 60% of survey participants said they buy games in retail stores, close to 50% are also buying games online, many from independent sites and direct from developers. 25% of players said they bought games on eBay, suggesting that they are purchasing used games. 43% of participants also said they had downloaded games for free and an equal percentage said they had paid to do so. 20% of respondents also said they received games as gifts. Only about 5% reported playing games through subscription services such as Gametap or AOL.

Baby Boomer Gamers get their game information from forums; ads have little influence.

Advertising is has very little influence on Baby Boomers’ game purchasing decisions. Their primary source of information is online gaming forums (87%), followed by online reviews (59%), developer web sites (35%), and print magazine reviews (19%). Word of mouth was also a factor, with 25% saying they looked for a buzz online, and 19% saying they were motivated by a buzz among their friends. Less than 10% noted advertising of any kind as a source of information about games.

Baby Boomers are loyal to series’ and developers.

While 32% said they like to keep up with the latest games as soon as they come out, 78% percent said they look for specific series that they know and like and 50% look for games from a specific developer; 44% said they were motivated to play games they know and like; 29% said they enjoyed playing older, nostalgic games. While all of these factor in, clearly genre and play style is the number one motivating factor, with 88% saying they are enthusiastic about a particular game genre.

What are Baby Boomers Favorite Games?

Consistent with the desire for intellectual challenge, by far the most favored genre among this group was the Roleplaying/Adventure/Mystery genres, with 81% saying they greatly or moderately enjoyed this genre. 59% of players said they greatly or moderately enjoyed Action/Adventure Games (e.g., *Prince of Persia*), 48% enjoyed Word Games, and 39% said they greatly or moderately enjoyed MMOGs. An interesting subtlety: while a total of 60% of respondents said they liked casual matching games, a greater number, 36% reported enjoying these games only moderately, while 24% said they greatly enjoyed them. Players also cited card and poker games (39%), strategy games (33%), and educational or cultural games (30%) and sim games (29%) among genres they liked. Games that players actively disliked included fighting games, (59% greatly or moderately disliked), all sports genres, including racing (between 61% and 53%), virtual pets (46%) and both single- and multi-player shooting games (around 42%).

229 participants made a top ten list, a task that respondents seemed to relish. Among these, *Myst* or one of its sequels appeared 224 times, making the series the hands-down favorite; the original *Myst* game made it onto more than half of respondents' top ten lists. *Uru* was listed on a little less than a fifth of top ten lists. Other popular series included *Syberia*, *Dreamfall*, *Battlefield*, *Broken Sword*, *Call of Duty*, and *Gabriel Knight*.

Increasingly, Baby Boomers are playing online games.

While single-player games were most favored among this group, it appears that a growing number of Baby Boomers have taken to playing online games. Of those who were playing such games, *World of Warcraft* by far the most popular, with about 28% of respondents saying they currently have an active subscription. *Until Uru* was a close second at 25% (although it should be noted that *Uru* players were specifically recruited for the survey.) The runners up were the *Battlefield* games at 18% and *Guild Wars* or *Guild Wars Factions* at 13%. Less than 10% subscribe to online game services such as Gametap and Pogo. 25% of respondents said they spend under \$20 a month on online games, suggesting they only have one or two subscriptions active. A slightly higher number, 27%, however, are spending between \$20 and \$59 a month, suggesting multiple accounts, a finding which is supported by the qualitative research; a little over 10% are spending over \$60 a month on fees related to online gaming; one person reported spending over \$200 per month. 16% of respondents also said they had earned virtual currency in-game, and 12% said they had actually purchased game currency with real money.

Opinions

In open-ended questions, survey respondents by-and-large expressed a lack of attention to their demographic and interests by the game industry. Some said current offerings were “not too bad,” others felt they were “improving, but still too boy-centered.” Although some players felt that “the creativity and thought put into the latest games are tremendous” many more felt that they were too formulaic, derivative, with too much emphasis on graphics and not enough on innovation. One player commented that \$100 was not a good entertainment value for a PC game. Many players felt newer games were too violent and “stupid” and did not provide enough of an intellectual challenge.

Adventure games were a recurring theme in comments. Many players called for a revival of “old school” point-and-click adventure games that included “good stories comparable to those in novels with excellent graphics” and less action and shooting. Another player pointed out that while “adventure games may always be a niche market [...] the industry is seriously underestimating the number of older people they could entice [...] most people I know have no idea there are anything but shooters and blow-em-ups...” A number of respondents indicated the perception that there was an adventure game renaissance underway, due largely to independent developers, although many felt there were still not enough offerings in the genre.

In keeping with this adventure game bias, players wanted games with more story and mental challenge, less “hack and slash,” action and shooting. Players complained that games were too reflex-oriented, and that “the industry is too skewed toward young men who want to drive fast and/or shoot things” and “aimed too much at juvenile, console-based players.” In fact, some players specified console games as being less oriented to women and older people. One player referred to console games as being “shallow.” Overall, players wanted more variety, more story, and more challenge. Some felt newer games were too easy, and most wanted more innovation.

Some players specifically commented that they would like to see more games targeted to women. Women players asked for more varied types of activities and avatars, and less built-in sexism in terms of female characters and avatar design.

Some players called for “more variable non-static worlds” (in other words, worlds that players change or alter in some way). One player proposed “The physical world of *World of Warcraft* with the society of *There.com* and the content of *Uru* would be the ultimate.” Another suggested, “Multiplayer adventures (i.e., no skill building RPG-like attributes) would be amusing and social.” One player stated that: “I favor MMOGs because I find them more involving: real people building communities and friendships through participating in a world they enjoy...I am not in favor of easier is more fun, sometimes the more complicated a game or world is, the more fun you have figuring it out.” Another suggested “Less violence. More cooperation.”

Players also complained of the dearth of game review sites addressing their interests. While some read game magazines, many felt that they were not getting the types of reviews they wanted. As one respondent pointed out “Most of the gaming sites really do not address the interests of Baby Boomers. Gamespot, for instance, always gives bad reviews to adventure games.” Generally, players seemed dissatisfied not only with the current offerings not only of the mainstream game industry, but of the mainstream game press as well.

Study Findings Part II: Qualitative Research—Interviews and Discussion Groups

Overview

The qualitative research was conducted in three formats: in-game group discussions in *There.com*, phone interviews, and e-mail interviews. A total of 22 people participated in interviews. The in-game discussion format had been developed during my research with the Uru Diaspora, and was a method I found very productive for establishing patterns of behavior. It allowed not only for the capture of player-specific qualitative data, but also for a reflexive interpretation of that data by the research participants themselves. What I found in this format was that affinities and patterns emerge and are identified by players in ways that might not come to the surface through individual interviews. While group discussion sometimes has the hazard of peer-influence, I found this to be less the case with Boomers who seem generally less susceptible to changing their opinion due to peer pressure than younger subjects. (For instance, in dyad focus groups with ‘tweens conducted during my consultancy at Purple Moon, girls would often wait to voice an opinion until they had heard what their friends had to say. This was not the case with Baby Boomers who were both forthcoming and outspoken in their opinions.) In addition to the in-game discussion groups, I took advantage of interest in the survey to initiate a forum discussion on GameBoomers.com, which will be discussed later in this section of the report. I also conducted one phone interview, and a handful of e-mail interviews, the latter primarily with forum and game company founders.

The results of in-game discussion groups are described in the first part of this section, and come largely in the form of mini case studies, describing individual players and their gaming histories, stories and lifestyles. The second section, consisting of the results of the GameBoomer forum discussion, provides a summary of players’ comments and insights on their own experience as Boomer Gamers.

Discussion Results

Families that Play Together—and Apart

As mentioned earlier, the survey findings refute the commonly held belief that gamers are typically unmarried and childless. In fact, family plays a major role in people’s gaming lifestyles, and a particularly interesting dynamic arises when grandchildren come into the picture.

While the survey provided a snapshot of overall demographics, it failed to capture the rich and complex narratives of family dynamics in gaming lifestyles. While in-game interaction has been the subject of numerous studies, the real-life social interactions and contexts within and through which gaming takes place is another area that is vastly under-studied. Getting a glimpse into people’s living rooms is a much more difficult problem than studying their behavior online. This is where the ethnographic method of participant observation, discussions and open-ended interviews can provide us with greater insight and understanding.

Most of the discussion participants were people who had been involved in a prior study and whose play styles and patterns I was already very familiar with. Thus the findings that follow integrate prior observations from the field with comments made during interviews specific to this topic. By way of illustration, I will present a series of case studies that seem to exemplify the types of family dynamics that occur, with a bit of analysis of how these narratives fit into the larger patterns and gaps left by the survey.

Bette¹, 59, was part of the study that I conducted between April 2004 and September of 2005 of members of the “Uru Diaspora” who had settled in the online virtual world *There.com*. She initially came to my

¹ All player names in this section are pseudonym’s for player avatar names.

attention because of her multi-generational family group. Along with her daughter and son-in-law, grandchildren, a nephew, and a couple of friends, Bette had built a small enclave that included several houses, a zoo, a farm, and an ark built by a fellow Uru refugee.

Bette reported that she was not much of a gamer until she accidentally came upon *realMyst* (Miller, 2000) a real-time 3D version of the original *Myst* (Miller & Miller, 1993), while waiting for her husband, 16 years her junior, to purchase some games at a local game store. “My husband used to drag me into the computer stores while he browsed for first-person shooters. I saw the *realMyst* box and it looked interesting so I picked it up. The selling item was the cool pictures; I also liked that it was a mystery and a puzzle.” Transformed into a self-described avid *Myst* fan, Bette soon lured her daughter, Luci, into the game, and they often played the single-player adventure game each at her own house while talking on the phone. Eventually they were playing the whole series, and it was Bette who got her daughter Luci into the original *Uru*, from which they eventually immigrated into *There.com* after *Uru* closed.

In *There.com*, Bette’s family, who all lived within an hour’s drive of each other, had an interesting routine: they would frequently get together at one of their houses for dinner, then drive back to their own homes, log in and spend the remainder of the evening online together in-game. Although all the family members were close, there was a special bond between Bette and her middle-school-aged grandchildren. She spent the vast majority of her time in-game with them, and over time, she ended up becoming the de facto gamer grandma to an extended community of teenagers in-world. Eventually she started a youth group in *There.com* to do certain types of things that might be disruptive to adults, but if managed properly could be fun for everybody. The ability to form cross-generational friendships is something that Bette and a number of players in my research have reported enjoying about playing online games; they are very aware that a 15-year old would not ordinarily befriend a woman of 59 in a real-world situation. *There.com* and *Uru* are among the few online games that officially allow players under 18, although it’s well known that many younger players subscribe to online games from which they are “technically” prohibited.

Although a little bit outside the Baby Boomer window, Clousseau, 64, punctuates the skipping-a-generation gamer scenario with the following story: Clousseau has a total of 10 grandchildren, all of whom play games. One afternoon while two of them were visiting, he stepped away from his *Uru* game in-progress to take a nap, inadvertently leaving the game running. His granddaughters came upon the game, and soon enticed the neighbor boys to join them in a team-based puzzle-solving escapade. When Clousseau came in from his nap, the kids were deeply engaged in the game, much to his surprise.

Raena, aka Steve, 48, is a real-life man who presents in a female avatar in *Uru*, *There.com* and *World of Warcraft*, a common practice in MMOGs. Steve is married with two children, and is an engineer by profession. His first gaming experience was with a chess simulator in which the computer instructed the player which pieces to move on a real chessboard. He also played *Colossal Cave*, an early text-based MUD (multi-user dungeon) on a Univac in college. Once he graduated and started working, gaming pretty much came to a stop with the exception of an occasional arcade game in a pizza parlor.

In 1992, he bought his first home PC and soon after was playing *Myst*, making his way through each game in the series as they came out. Steve noted the impact of his children’s ages on his own gaming activities. “By the time they are 10 or 11,” he says, “you have more time on your hands because they can take care of themselves. By the time they are teenagers, they have a social life.” This new independence gave him time to pursue *Uru*, the online *Myst* sequel and later the virtual world *There.com*, and he has since added *World of Warcraft* to his repertoire. He now typically spends between 20 and 30 hours a week in online games and virtual worlds.

Steve's story exemplifies "the platform generation gap" cited earlier: The family owns an xBox, a Play Station 2, and a Nintendo Game Cube; but these, he says, are largely the kids' domain. Console gaming takes place mainly in a "teen room" designed and decorated especially for that purpose. He rarely plays console games, except Dance-Dance revolution, which is the one digital game he plays with his children. I asked him if this interferes at all with TV time: "For the kids," he says, "this *is* TV time. To them it's all the same." When they finish playing, they usually collapse exhausted on the couch and watch the news.

It is interesting to note that even though Steve plays the tabletop strategy game *Warhammer* (Ansell, Halliwell, & Priestly, 1983-present) with his son, where digital games are concerned there is a strong line drawn in the sand. For instance, his daughter's friends found him in the game room one night playing an online game on his laptop. One of them asked if he wanted to join their guild. His daughter was horrified. Later, when he wanted to try a new game, he ruled out *Guild Wars* (O'Brien, 2005): "Oh, I can't play that," he said, "my daughter plays that with her friends." He instead opted for *World of Warcraft* primarily because friends from other games were playing; interestingly, he continued to maintain his accounts in *Uru*—now *Myst Online: Uru Live—There.com* and *Second Life*. (Linden Lab, 2003)

Steve's story also highlights another interesting pattern among Baby Boomers who play online games. While the typical pattern among younger players is to maintain only one game account at a time, Baby Boomers, with their growing leisure time and disposable incomes, are more likely to maintain multiple accounts; furthermore, they are more likely to spend additional money on things like virtual items, real estate, and the costs associated with player production. This pattern was supported by virtually all of the interviews in this study, as well as participant observation in previous research.

Lindalou, 32, is a child of Boomers who describes herself as coming from "the quintessential gaming family." As a child, the arrival of the monthly issue of Games Magazine was a major household event. They had an Atari set up in the family room, where they played *Pong* (Bushnell & Dabney, 1972) and also board games. Because her mother was in night school while Lindalou was growing up, her father became her primary entertainment after school. When she was 15 she got her first job and brought her own Nintendo machine, which she kept in her room. Her dad and brother would come into her room to play. When she left for college, she gave the Nintendo machine to her dad. The "hand-me-down" effect, in which an older child passes an older system onto a younger child when a new system comes into the household, is a common phenomenon tracked by software producers; however, this is the first instance I had heard of a "hand-me-up" from child to parent.

Lindalou also played *Legends of Zelda* with her mom, who did not like the competitive speed-oriented games she typically played with her dad. Currently, Lindalou plays *There.com* with her nephews. She tried to get her dad to play, but he prefers *The Sims Online*, where he also plays a female character. Currently, her dad is recovering from a stroke and spends most of his time at home; she notes the parallels in his online life as a female avatar, and his new role as a "housewife" at home. She also believes the game is helping him with the stroke recovery.

These stories begin to paint a picture of complex family dynamics around gaming. On the one hand, we see a kind of "platform generation gap" among Steve, a younger Boomer, and his teenage children. On the other hand, we see a growing bond between Boomer Gamers and their gamer grandchildren. With Bette's story we see an adult parent and child also forming a bond around gaming, and also the growing phenomenon of intergenerational friendships. Bette's story also highlights the role of a spouse in exposing particularly female Boomers to gaming; yet even though she and her husband are both gamers, Bette typically does not play with him as their gaming tastes differ drastically. Lindalou's story highlights

the notion of the multigenerational gamer family, but also demonstrates that differences in tastes may drive individual members to different games, even though they still enjoy sharing their gaming experiences; the bond with her nephew also demonstrates how extended families can come into the picture.

The Social Milieu

As we've seen from both the survey and our discussion of Boomer-targeted forums and web sites, social interaction, and more specifically, a certain type of social interaction, is a particular focus of Boomer Gamers. Even in a context such as GameBoomers.com, where the games reviewed and discussed are largely single-player, the community of "like-minded individuals" brings an important dimension to their gaming experience. Helping others in a gracious and prompt fashion, being tolerant and "mature" all seem to be important factors for a gaming community. This echoes the survey results in which "helping newbies" was among the favorite gaming activities of Baby Boomers.

Although this study did not include comparisons to players in other age groups, it is clear that Baby Boomers gamers are very community-minded. Although they are in the minority of *There.com* subscribers, for instance, according to the online world's operator Makena, Inc., Boomers represent a disproportionately high number of community leaders, including members of *There.com*'s Member Advisory Board; they include the founder of the University of There, owners of major Neighborhood communities (communal properties that are shared by groups), community service award-winners, and leading designers.

Game communities among this demographic may have some precedents in pre-digital game practices. Rachel, a 44-year old game design instructor at a University, compares her *Halo* (Jones, Chu, & Ryan, 2001) group to a Bridge club. She initiated the group with some college friends dispersed around the country as a way to hang out together; although at first reluctant, they eventually agreed and now have a regular core group of 4-5 players who meet 3-4 times a week in the networked xBox game. Others drop in once every couple of weeks. They play on a private server and frequently make up their own game rules, often developing silly variations on the original game that exploit the physics of the environment or the features of weapons. Although the instigator of the group, Rachel, who has a busy work and travel schedule, now sometimes feels the group has become an obligation, but due to her loyalty to her longtime friends, she continues to play.

The sense of loyalty that can sometimes lead to a feeling of obligation is a common side effect of the sociality of the current gaming environment. Although social burn-out is common in online games, especially for people who spend as many as forty hours a week in-world, it seems to weigh particularly on Baby Boomers, who take their social relationships and commitments very seriously, while at the same time trying to balance their game lives with their real-life responsibilities.

CelticQueen, 54, a fan of SciFi and fantasy fiction, had never played a computer game in her life until she saw an article about *There.com* in *Discover Magazine*. Because of her interest in alternative worlds, she was instantly captivated and took the article to her husband, demanding: "You've got to get me in *There*." She had to purchase an upgraded graphics card, and eventually an entirely new computer in order to join this community. Since then she has also been playing *Dungeons & Dragons Online* (Palz, 2006), a game she says she would have played years before in its original tabletop instantiation (Gygax & Arneson, 1974) had she had any friends who would play with her.

The scenario we see with both CelticQueen and Bette exemplifies a common pattern of Baby Boomers, especially female Baby Boomers, coming to both games and computers fairly late in life. CelticQueen's

case also highlights a very interesting social dynamic: She had always *wanted* to play the tabletop role-playing game *Dungeons & Dragons* but her social milieu did not offer her any opportunities to do so. Joining *There.com* thus became her entrée to a new social circle, as well as opening up the possibility of engaging with strangers in other game contexts. By the time the online version of *Dungeons & Dragons* was released, CelticQueen was an accomplished online gamer and a successful designer in *There.com*.

One interesting experience that emerged in discussion groups, and was also corroborated by earlier research, concerned inter-generational gender bias. While there is much concern among politicians and parents alike about the perceived vulnerability of young people to sexual predators in online game games, underreported is the apparent sexual harassment that is perpetuated by younger people towards older players. A number of women in the discussion groups reported of sexual advances made towards them by obviously younger male players. This parallels the incidents of gender harassment and discrimination cited earlier, which caused women to gravitate towards The Older Gamers community. While this issue requires more in-depth study and analysis, at first glance it would appear that gender discrimination is more prevalent among younger males. This type of “acting out” that seems to be enabled by the perceived anonymity of online worlds appears to be more common among adolescent male players than among their Baby Boomer counterparts.

Many of the social interests voiced by Baby Boomers in this report are contained within in the mission statement of the group that was the central focus of my initial *Uru* study. The Gathering of Uru (TGU) was built on a foundation of rules that, in retrospect, sound like a Boomer Gamer’s Utopia: Tolerance, mutual respect and a focus on fun rather than skills are all part of the TGU creed and seem to be echoed throughout this research, even among gamers with vastly differing tastes in specific game content. Leesa, the founder of The Gathering of Uru and a Baby Boomer, got her first game, *Myst*, bundled with her first PC, a common practice in the early 1990’s. Although she had not planned to become a gamer, she quickly became a fan and purchased subsequent offerings from Cyan. In *Uru*, she became the mayor of a 300-person community that immigrated to *There.com* when *Uru* closed in 2004. “Leesa’s rules” became a mainstay for the group, which continued to thrive in its new milieu. Since the re-opening of *Uru* as *Myst Online: Uru Live*, TGU now maintains a strong “trans-ludic” (Pearce, 2006) community both *There.com* and *Uru*. These trans-ludic, multi-game play patterns are commonplace among Boomers, who, as mentioned earlier have both the time and the income to support multiple game presences. When *There.com* introduced the Neighborhood format that allows groups to own property collectively, members of TGU were among the first groups to use this feature, which representing a fairly large collective expenditure in virtual land fees. (There is currently no way for individual players to own land, so it is significant that land ownership requires the participation of an entire community.) When it was announced that *Uru* was reopening, as *Myst Online: Uru Live*, Leesa and others in her group were very clear that they had no intention of leaving *There.com*, and most of the active group members continue to maintain a presence in both games.

In addition to serving as her group’s mayor, Leesa’s story also includes a romantic angle. After moving into *There.com*, she married one of her group members in-game prior meeting him, and the two have since become real-life partners. They are regulars in *There.com*, *World of Warcraft* and *Uru*, all of which they visit on a regular basis, although often in cycles that favor one game over the others.

Leesa’s “deputy mayor,” Lynn has also had a vital role in the group; while a little older than the Baby Boomer demographic, Lynn’s story provides insight into the role of gaming for the disabled player: home-bound and in a wheelchair due to a degenerative spinal disorder, Lynn finds online games a wonderful relief from both her physical and emotional pain. They provide a level playing field for social

interaction, and her online friends are more than willing to accommodate her disability, frequently typing for her while she speaks on a voice-over-IP system. Lynn is an example of a player who would quickly become frustrated in a keyboard-intensive, reflex-oriented world; however, in *There.com* and *Uru*, where social and intellectual skills are valued over dexterity and speed, she flourishes. In fact, she says, her gaming experience has given her a new lease on life, and provided her a new way to be of service, notwithstanding her disability. The lack of competitive ethos in her group, and the sense of support to pull other players forward is a hallmark of her group, and also seems to extrapolate to older players in general. Her story provides an insight into the potential future benefits of gaming to older gamers, who can also use them to adapt to limited mobility and physical ailments while still maintaining a rich and productive social life.

The final case study in this series involves an entire community of Baby Boomer women. This group, uncovered in the process of conducting interviews for this study with *Uru* refugees in *There.com*, was originally formed as a “secret society” of over-fifty females in *Uru*. These players were late-comers to the *Uru* immigration trend, arriving about (two years) after the original *Uru* refugee surge. Originally joining the TGU neighborhood described above, these women eventually spun off and created their own *Uru*-inspired *There.com* Neighborhood, including the commissioning of large-scale *Myst*-derived installations. They have emerged as a major land-holder and have also garnered multiple awards for décor. These women have a unique play style that, while sometimes rough-and-tumble and even competitive, has a distinct quality of support within the group. For instance, they do a regular date to run a cross-country race (sponsored by another Thereian) on Friday nights. Unlike a traditional race, this race does not focus on speed. Players have to visit 9 checkpoints within the three-hour period that the race is open. At the end, all players who have completed the race are assigned a number and entered in the drawing; whoever wins the drawing gets the prize, usually a vehicle. The women in this group do this virtual vehicular race together, communicating through a group chat window, and will wait at each checkpoint until the others catch up. Additional research is currently underway on this group that will be published in a subsequent study.

GameBoomers Discussion Group

Taking advantage of a discussion that spontaneously arose on the GameBoomers.com forum as a result of the posting of the Baby Boomer Gamer survey, I decided to initiate a new forum topic to allow participants to voice more complex ideas than would be afforded by the survey. Twenty GameBoomers members, over half of whom were female², participated in this highly productive discussion. Players were highly self-reflexive, paralleling discussions I had had with Boomer players in *There.com*. While their comments represented individual theories, perspectives and experiences, they provided a level of insight that added additional level of analysis to the study.

The topic began with the question: What distinguishes Baby Boomer Gamers, and indeed all gamers over 40, from gamers in other age groups?

One participant critiqued the survey itself, asking if it was posted on a cross section of sites other than those catering to adventure gamers, and also if gamers under 40 were included. I made it clear that participants had been solicited from other sites (not just GameBoomers), and also that a cross-section of ages was not within the current scope, although I did concur that such an expanded study would help to

² Because GameBoomers does not require gender information for player registration, a precise male/female ratio could not be determined; however, based on player names and avatar representations, over 50% of the forum discussion participants appear to have been female.

clarify the significant differences. Another player commented that it would be interesting to learn how many younger gamers shared the tastes and interests of Baby Boomers.

Another player provided insight into the range of tastes within her own family:

My sons like games where they can move around and explore at a faster pace than you find in most adventure games. They both like games that test their reflexes, but they also like games that make them think. A plot is nice, but is not the reason that they game. A game with a lot of stand-alone puzzles will leave them stuck, and they don't have the patience to spend a lot of time being stuck.

I like games where I can explore at a slower pace, and I like appealing characters and a good plot. If I never have to engage in timed tests of skill that's just fine with me.

Games that both generations in my family have enjoyed -- 80 Days, Dreamfall, the Bone games, WANTED: A Wild Western Adventure, Ankh, Psychonauts.

Another participant posited that PC gamers who start later in life (a common phenomenon among Baby Boomers) seem to be less tech-friendly and prefer more cerebral challenges (as opposed to dexterity based); conversely, gamers that started playing available games in the 80s seem to enjoy a wider variety of types of games (consoles, RPG, sims).

A number of participants theorized that the historical context in which Baby Boomers grew up might also have an impact on game tastes, although this was a controversial viewpoint with varying theories and some dissenters. This line of discussion began with a post suggesting that Boomers who had grandparents and parents involved in World Wars I & II, and were themselves exposed to the Viet Nam War and civil rights movement, may tend toward games where they need not be violent and/or need not kill things. Perhaps, due to growing up in this context, they simply want their gaming to be a bit more peaceful.

But virtually everyone else in the discussion disputed this theory, feeling that historical or current politics had little to do with gaming tastes. (This theory is also countered by the fact that Baby Boomers surveyed on other sites played a number of combat-based games, including Battlefield Viet Nam, which seemed to be particularly popular among this demographic.) A handful of players said they enjoyed games that involved killing as well as adventure games (although they tended to shy away from gore.) One player said she enjoyed the feeling of being powerful in a fantasy world. These players felt that key to their gaming experience was a sense of balance.

A more popular line of thinking vis à vis historical context had to do with the media mix in which Boomers grew up. One player posited the theory that Baby Boomers were “Mental,” relying on their minds and imaginations to entertain themselves, while later generations were more “Physical,” focusing on things to see, feel, hear and do, e.g., VCRs, Nintendo, Malls, Video Arcades, MP3 Players, Cable TV, Sports Camps, etc. Boomers, she theorized, had less media and thus made up stories, acted them out, played dress up, and Army with nothing more than rags or a stick; they read books and had to imagine what the characters looked like; they listened to music and imagined its meaning in their minds, rather than seeing it depicted in MTV videos. Adventure games, she concluded, were mental and imaginative. She also suggested that this might be why younger players preferred more action and movement in their games.

Another built on this theory:

I think kids nowadays are used to more stimulation, more music, more toys, more travel, more visual content, and more information in general. They handle MORE than we did as kids. They probably

sleep less, and they undoubtedly read less...Kids don't have to be as creative in order not to be bored as they used to be. Does this make them less imaginative? ...Or does modern life give them more context, more symbols, more ideas with which to be creative?

One player also hypothesized that differences in gaming tastes may have to do with stress management during different phases of life:

In my teens and twenties, I played a lot of arcade games [...] where the gaming process—standing there in front of the console—was almost physical, like you were fighting with the console as much as fighting within the game. But as I got older I didn't want to fight so much. I remember one of the first adventure games I played—I think it was Dragonsphere—where you had to trick a fairy to gain access to the magic wood or some such, and I was so delighted that you had to solve riddles rather than just pulling out your sword and charging in.

Another discussion participant suggested that action was a way for younger people to work out their frustrations with the mixed messages they get from society: on the one hand showing them television violence or cut-throat competition in reality shows, on the other censoring cartoons and taking swings and other “dangerous” contraptions from playgrounds.

Another added, “I think part of that stress management or fulfillment is in some cases picking games that are generally opposite of what we encounter in our real day to day activities.”

Even though most did not agree with the historical context of wars for Boomers, with a handful of exceptions, there nevertheless appeared to be a marked bias among the GameBoomers community against violence, and particularly gore, in games. (This may be in part due to the Adventure Game Focus of the site, and it was clear from other sites, such as The Older Gamers, that many Boomer players, as well as the survey findings, that many Baby Boomers do enjoy combat-based games.) Whatever the reason for this, it seems to color Boomer Gamers’ perception that their interests are off the radar of the mainstream game industry. As one player put it, “I’d much rather use brains than brawn when I’m gaming.”

Some discussion participants disagreed entirely with the premise that age was any factor at all, citing personal tastes and much more critical to gaming preferences than anything else.

One participant pointed out an important factor that also came up repeatedly in interviews, forum reviews and discussions: that age-related physical problems like arthritis, repetitive stress, bad backs, old injuries, etc., can be a major decision factor for some players, who might not be as adept at reflex-responses and quick movement. This added to the appeal of point-and-click adventure game and may also contribute to findings cited earlier that Boomer Gamers do not put a heavy emphasis on skills acquisition or competition.

The one point upon which all of the players in the GameBoomers discussion seemed to agree was that reading was a major factor in their game preferences, and one pointed out that this had turned up in a GameBoomers member survey several years earlier. Both the fact that they had read a lot as children, and that they continued to enjoy reading books as adults colors their gaming experience, creating a marked preferences for slower-paced, story-based games that spark the imagination and challenge the mind. One player pointed out that the adventure game genre is not only most *like* reading in terms of experience, but also has the most reading built into it, a trait also shared to a certain extent by roleplaying games. This notion was supported by both the survey and by the added data point that Boomers enjoy games based on books that were likely to have been read by this demographic as children, such as *Nancy Drew* and *Agatha Christie*.

Conclusions

This study, which included just over 300 people (271 survey participants, 22 discussion and interview participants, and 20 forum discussion participants), revealed a surprising and nuanced portrait of a gaming population which been largely ignored by both research and industry, but is of growing interest to both.

The game industry has long presented its fare as pertaining primarily to children and teens. But this research revealed the surprising finding that the percentage of gamers who are Baby Boomers is identical to, and possibly higher than their representation in the overall population, a little over a quarter in each case. Furthermore, Baby Boomer Gamers may in fact be better game customers: they have both more time and more money to spend on games, which they do. As Boomers on the younger end of the spectrum grow older, their children require less maintenance; on the higher end of the spectrum, they are tending to work part-time or be retired, thus have more leisure time on their hands. While it is well known that the average Baby Boomer's annual income is significantly higher than the national average (\$73,000 vs. \$65,000), Baby Boomer Gamers' incomes actually skew slightly higher than the mainstream of their demographic, with a quarter of survey respondents reporting incomes exceeding \$100,000.

Because of this higher income, as well as other factors, PCs (90% with broadband connections) seem to be the gaming platform of choice for Baby Boomer Gamers. These players are hardcore fans who focus on specific developers and series', and in the case of MMOGs, typically maintain multiple accounts and in some cases invest fairly large sums of money in virtual real estate, items, and costs associated with creative production in virtual worlds.

Even through they tend to favor single-player games, Baby Boomer Gamers are community-minded. They seek mature companionship and a supportive ethos that is focused on graciously helping other players, and recognizes that "real life comes first." They are community leaders, with over 20% saying they helped administer a game community web site, and a similar number saying they have been to fan conventions. Increasingly, they are playing in online games and virtual worlds, where they run guilds and neighborhoods, buy virtual real estate and merchandise, start communities, and embark on creative and civic projects.

Contrary to the stereotypes, the majority of Baby Boomer Gamers (over two thirds of study participants) are married or living with a domestic partner. A little over a third had children at home, and a little under a third had adult children living out of the house. A small number also had an adult relative, such as a parent, aunt or uncle, living with them. A small majority of study participants were also female, further refuting classic gender and age-based stereotypes of gaming. Female Baby Boomer Gamers are highly active, with over 2/3 of game reviewers on GameBoomers.com being women, and women taking major roles in organizing and managing gaming communities.

Two particular generation gaps were identified. The first was the "platform generation gap." As mentioned earlier, PCs are by far the platform of choice for Baby Boomer Gamers; virtually all the study participants said they used a PC as their primary gaming system; and while a fifth reported having consoles in the home, they perceive these as being the domain of the children in the house. It's interesting to note that about half the study participants did not start playing games until they were over 20, thus they may not connect gaming with their own childhoods, even through they recognize it as part of their children's. The second gaming generation gap is the related "leapfrog effect" in which Baby Boomers are more likely to be playing games with their grandchildren than with their children. We also saw cases of parents playing with adult children living out of the house.

The study also refuted the commonly held belief that Baby Boomers are primarily casual gamers, although about a fifth report casual gaming as part of their play repertoire. Nearly a third of study

participants, the largest percentage, are spending 20-40 hours a week playing games, a figure that would classify them as “hardcore gamers.” A little less than a fifth are playing 15-19 hours per week, and a slightly smaller percentage 5-9 hours. A surprising 28% of survey respondents reported having had a game session of 12 hours or more. Baby Boomer Gamers are also avid readers, enjoy games that are based on books, and compared the slower pace of the adventure genre to reading. They are playing games more than watching TV and are more likely to displace television watching with game playing than any other activity.

Baby Boomer Gamers have diverse tastes in gaming but tend to prefer intellectually challenging over speed and reflex-oriented games. Boomers by and large see gaming as an escape to another world, and like games with a story, strong and imaginative visuals, and have a marked preferences for games with an artistic, cartoony or historical/nostalgic aesthetic over games with high-tech or photorealistic visuals. They see gaming as a kind of vacation that sparks the imagination, immerses them in beautiful scenery and promotes a sense of wonder. While the majority of players (two thirds) favored roleplay/mystery/adventure games, a close percentage (60% each) also enjoyed action/shooter games and casual/matching style games. The vast majority of survey participants *disliked* fighting, racing and sports games. Many complained that mainstream contemporary games place too much emphasis on reflex challenges, which are both less interesting to them, and also may be more difficult due to physical conditions or disabilities. While they value intellectual challenges, they are less interested in leveling and skills acquisition, and also less inclined to enjoy gaming experiences that are timed. In short, Baby Boomer Gamers just want to have fun.

How do Baby Boomers define fun? While they are diverse on some matters, most players cited exploring as a favorite activity (87%), followed by helping new players (78%), puzzle-solving (77%), questing (68%) and socializing (63%). More controversial were combat and shooting: 56% of respondents said they enjoyed shooting while 36% said they did not. About an equal number of players (close to a third each), reported both enjoying and disliking player-versus-environment combat, while over half disliked player-versus-player combat, and a quarter said they enjoyed it. Half of players also cited team cooperation as enjoyable, while less than a quarter enjoyed team-based competition.

There is one thing upon which most Baby Boomer Gamers agree, regardless of their gaming preferences: the lack of attention by the mainstream game industry of their interests. While some players had positive things to say about publishers’ offerings, a greater majority felt that video games were too formulaic, derivative, with too much emphasis on graphics and not enough on innovation. This perception has driven many Baby Boomers into the arms of independent developers who they feel are better meeting their needs. Many players called for a revival of “old school” point-and-click adventure games and some perceived that there was an adventure game renaissance underway, due to these smaller developers. Women players in particular felt neglected, asking for more games with them in mind, more variety in both activities and avatars, and less stereotyped female representation in game characters. Participants were also largely dissatisfied with the mainstream game press, which they felt was biased against the types of games they liked. As a result, they tend to get the bulk of their gaming info from player-run sites, online buzz or word-of-mouth. Game advertising, whether on television or in print, was virtually irrelevant to them.

This study was concluded several months prior to the release of the Nintendo Wii. While Nintendo has explicitly stated that it is targeting the Baby Boomer demographic with both its new system and its games, it will be interesting to see how this plays out. Baby Boomer Gamers, at least those in this study, perceive console systems as being primarily for their children. The Wii’s plethora of new games that break the traditional console mold might be opening up gaming to new players who have not previously played video games; however, they fail to address the needs of the core constituency of Boomer Gamers represented in this study. These players primarily seek slower-paced, story- and adventure-driven games

that provide an intellectual challenge. The Wii and its gesture-based controller certainly address some of the physical issues of Baby Boomers by reducing the need for fine-motor coordination; however, they still tend to favor physical over intellectual play.

Thus in spite of the Wii's expanded market, there remains an untapped window of opportunity to provide the type of experience that that one Baby Boomer in this study described as...

...what travel is to some of my friends—an escape, a window on the world, an adventure. It is a vacation at my desk—with no hectic schedule to follow, no lost luggage and all the comforts of home while meeting fascinating characters, gazing at awe-inspiring scenery and being drawn through the computer screen into amazing, frightening, wonderful journeys, from which we can return a little bit better than when we started.

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REFERENCES

- Ansell, B., Halliwell, R., & Priestly, R. (1983-present). *Warhammer*: Games Workshop.
- AOL. (2006, February 11, 2004). New Study Reveals That Women Over 40 Who Play Online Games Spend Far More Time Playing Than Male or Teenage Gamers. *America Online Press Release*.
- Bronstring, M. (2003, December 19, 2003). The Future of Adventure Games. *Adventuregamers.com*.
- Bushnell, N., & Dabney, T. (1972). *Pong*: Atari Inc.
- Castronova, E. (2001). Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier. *CESifo Working Paper Series, No. 618*.
- Census Bureau, U. S. (2000). *United States Census*.
- Census Bureau, U. S. (2006a). Median Income for 4-Person Families, by State. In U. S. Census (Ed.).
- Census Bureau, U. S. (2006b). *Oldest Baby Boomers Turn 60!* (No. CB06-FFSE.01-2). Washington, DC: U.S. Census Bureau.
- ESA. (2006). *Essential Facts and the Computer & Video Game Industry*. Washington, DC: The Entertainment Software Association.
- Fuyuno, I. (2007). Brain craze. *Nature, 447*, 18-20.
- Gaudiosi, J. (2007, April 25, 2007). How the Wii is creaming the competition: Business 2.0 Magazine tells the inside story of how Nintendo outfoxed Sony and Microsoft and got itself back in the game. *CNNMoney.com*.
- Gee, J. P. (2003). *What Video Games Have to Teach Us About Literacy and Learning*. New York: Palgrave Macmillan.
- Griffiths, M. D., Davies, M. N. O., & Chappell, D. (2003). Breaking the Stereotype: The Case of Online Gaming. *CyberPsychology and Behavior, 6*(1), 81-91.
- Grossman, L. (2006, May 15, 2006). A Game for All Ages: Nintendo gave TIME the first look at its new gadget, which it hopes will turn girls and even grandads into video gamers. *TIME Magazine*.
- Gygax, G., & Arneson, D. (1974). *Dungeons & Dragons*: TSR.
- Hazel, D. (2002, February 2002). Where's the Boom? As baby boomer income peaks, malls still waiting for windfall. *International Council of Shopping Centers Industry News*.
- Janesick, V. J. (2000). The Choreography of Qualitative Research Design: Minuets, Improvisations, and Crystallization. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (Second ed.). Thousand Oaks, California: SAGE Publications.
- Johnson, S. (2005, July 2005). Your Brain on Video Games. *Discover*.
- Jones, J., Chu, H., & Ryan, R. (2001). *Halo: Combat Evolved*: Bungie Studios/Microsoft Game Studios.
- Kawamoto, K. (2005 (U.S. Edition 2006)). *Brain Age*: Nintendo.
- Linden Lab, I. (2003). *Second Life*. San Francisco, California.

- Mäyrä, F., & Ermi, L. (2005). *Fundamental Components of the Gameplay Experience: Analysing Immersion*. Paper presented at the Changing Views: Worlds in Play/Selected Papers of 2005 Digital Games Research Association's Second International Conference, Vancouver, Canada.
- McCurry, J. (2006, March 7, 2006). Video games for the elderly: an answer to dementia or a marketing tool? *Guardian*.
- Miller, R. (2000). *realMyst*: Cyan Worlds/Learning Company, Inc.
- Uru: Ages Beyond Myst, (2003).
- Miller, R. (2007). *Myst Online: Uru Live*: Cyan Worlds/Gametap.
- Miller, R., & Miller, R. (Writer) (1993). *Myst* [Computer Game]. In L. Strand (Producer). United States: Cyan Worlds, Inc./Brøderbund Software, Inc.
- Morris, C. (2006, February 10, 2006). Wither the gray gamer? While game players get older, the industry ignores a potentially lucrative demographic. . *CNN Money.com*.
- Nardi, B., & Harris, J. (2006, November 4-8, 2006). *Strangers and Friends: Collaborative Play in World of Warcraft*. Paper presented at the ACM/Computer Supported Collaborative Work, Banff, Alberta, Canada.
- Nelson-Brown, J. (2006, March 31, 2006). Save My Game: "Mature Gamers". *Wizards.com*.
- Nielson/NetRatings. (2006). *Broadband Usage in 2006*: Nielson/NetRatings.
- Nishiyama, G. (2006, April 8, 2006). Brain training takes aging Japan by storm. *Yahoo News*.
- O'Brien, M. (2005). *Guild Wars*: ArenaNet/NCsoft.
- Palz, K. (2006). *Dungeons & Dragons Online: Stormreach*: Turbine, Inc./Atari.
- Pearce, C. (2006). *Playing Ethnography: a study of emergent behaviour in online games*. Central Saint Martins College of Art and Design, London.
- Reuters. (2007, Sunday, March 25, 2007). Nintendo's Wii Becoming Bit Hit in Nursing Homes Nationwide. www.foxnews.com.
- Richardson, L. (2000 (c.1994)). Writing: A Method of Inquiry. In N. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (First ed.). Thousand Oaks, California: Sage.
- Seay, A. F., Jerome, W. J., Sang Lee, K., & Kraut, R. E. (2004). *Project Massive: A Study of Online Gaming Communities*. Paper presented at the ACM Conference on Human Factors in Computing Systems.
- Surette, T. (2006, August 10, 2006). Brain Age reaches sales milestone: Cerebral treadmill sells more than 4 million worldwide, more than 3 million in Japan; Europe's Brain Age sales off to a fast start since June release. *Gamespot*.
- Tadros, E. (2006, May 4, 2006). Sidney Morning Herald Blogs: 'Older' hands on the joystick. *Sidney Morning Herald Blogs*.
- Taub, E. (2006, October 30, 2006). Nintendo at AARP Event to Court the Grayer Gamer. *New York Times*.
- Taylor, T. L. (2003). Multiple Pleasures: Women and Online Gaming. *Convergence*, 9(1).
- There, I., & Makena Technologies, I. (2003). *There*. Silicon Valley, California: Makena Technologies, Inc.
- Vance, M. (2004). *Casual Online Gamer Study*: Digital Marketing Services for AOL Games.
- Wischnowsky, D. (2007, February 16, 2007). Wii bowling knocks over retirement home. *Chicago Tribute*.
- Yee, N. (2001). The Norrathian Scrolls: A study of EverQuest. <http://www.nickvee.com/eqt/>.