Digital Gaming Perceptions Among Older Adult Non-gamers

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Abstract. A report published by the Entertainment Software Association in 2013 stated that nearly half of persons aged 50 years and above play digital games. To better understand the characteristics of this growing marking, audience studies have been conducted. However, there is a dearth of research that specifically assesses the underlying qualities that characterize older adult non-gamers. As a direct extension of a study that examined older adult gamers and resulted in the generation of theory, this study sought to understand the older non-gamer audience. In particular, this study aimed to identify aspects that occurred over the course of the adult's life that hindered digital game engagement. By individually interviewing eleven non-gaming older adults (age 60 to 89), three notable themes emerged and provided supportive evidence for the validity of the theory. By gleaning insight from the full spectrum of the population (gamers to non-gamers), game scholars and developers may a have better understanding of how to meet the needs of a wide range of older adults.

Keywords: Older adult gamers · Older adult Non-Gamers · Audience study · Life course · Play

1 Introduction

The most current demographic findings within an industry report generated by the Entertainment Software Association (ESA) indicate that 26% of digital game players are persons age 50+ [1]. Furthermore, an additional assessment conducted by ESA reported that nearly half (48%) of persons aged 50+ play digital games, and among that gaming population, 80% play on a weekly basis [2].

Indeed, digital games – an encompassing term that includes video, console, and computer games – have grown in popularity among older populations. It is challenging to identify a primary catalyst in this shift, yet it has been suggested that the introduction of Nintendo's Wii console in 2006 helped to spur the popularity of digital games among the older consumer market [3]. However, it must be kept in mind that as time progresses, the characteristics and collective life experiences of this population becomes redefined.

This evolving shift was highlighted in a large qualitative study that explored the characteristics of older gamer populations [4]. The majority of the older adult gamers within the study (those age 60+ years) began playing digital games in their adulthood

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years. This is natural being that early console systems became available to the public when they were adults.

However, a number of the middle-aged gamers within the study (those aged 40 to 59 years old) shared stories of how they were first introduced to or began playing digital games when they young (e.g., early adolescence). For example, at the time of this writing, a 14-year-old adolescent who played an Atari console game in 1980 is now 50 years old. This means that today's middle-aged cohort, will be the first older adult generation to have been exposed to digital games for the full span of their life – from childhood to older adulthood.

It was also found within the study that some of the older adult gamers who are now in their 60s began playing digital games when they were in their 20s. Thus, they, too, have been playing for decades and gaming has been a major component of their play identity.

With the proliferation of digital games into the American culture of play, it may be difficult to imagine how an average adult would *not* have been exposed to digital games at one point or another in their life. Yet, even once that encounter occurs, one may question why the individual fails to adopt the technology when there is evidence that there can benefit to engaging with digital games. This study sought to explore the variety of factors that hinder gameplay among older adults

2 Review of the Literature

There has been an increase in the amount of scholarly attention that has been paid to older adult gamers (i.e., those who regularly play digital games). Even within the past five years, there has been a notable increase in the number of studies that specifically target older gamers. This is in comparison to those studies that were identified by DeSchutter, Brown, and Nap in a comprehensive literature review where – at the time of their writing – roughly a dozen articles were identified that focused on this niche [5].

With respect to those few audience studies that specifically explore the characteristics of the older gamer [e.g., 4, 6], most research within this realm (i.e., older gamers) have an eye to identifying how or to what extent older adults may benefit from game engagement.

One of the more popular approaches that have received much attention is the potential influence of digital gameplay on the cognitive ability of the older adult. Positive associations have been suggested with aspects such as visuospatial ability and processing speed [7–11]. Other approaches have included how digital games have come to serve as tool for socialization [4], a source of challenge [12] and improved emotional well-being [e.g., 13].

In comparison, the majority of the research that pertains to older adults and digital games tends to focus on older adults as a potential user of gaming technology (e.g., for rehabilitative purposes). For example, approximately five years after the Nintendo Wii was released to the public, there was a proliferation of studies that assessed it as a potential intervention for rehabilitation or to aid in balance among older non-gamers

(e.g., 14–19]. And still, even in the last year, the Wii has been a primary platform to assess these aspects among older populations [e.g., 20–22].

Overall, there appears to be a positive relationship between digital games (or at least the potential for digital game use) and older persons. However, it is worth investigating the other half of the population who do not engage in regular digital gameplay – the older adult non-gamers.

There is a dearth of research that specifically examines older non-gamers as a distinct audience. One such study sought to examine both older gamers and non-gamers with respect to psychological functioning [23]. Overall, the findings indicated that occasional and regularly playing older gamers fair better in terms of well-being, social functioning, and depression.

Despite the promising findings of the aforementioned study, there is a lack of research that probes the defining characteristics of older adult non-gamers in comparison to older gamers. The study presented herein aims to serve as a springboard for a new chapter in this niche of audience studies. It is a continuation of the larger (parent) study described within the introduction [4, 24]. The parent study focused on two populations: Middle-Aged Gamers (age 40–59) and Older Adult Gamers (age 60+) and employed a life course perspective as a means to situate the individual in their personal and historical context. That research resulted in the generation of theory – *Engagement in digital gaming in old age is a life course extension of play that is a function and mediation of a person's motivation, experience, and ability.*

The three identified domains refer to: *the strength of an aging gamer's (1) motivation to play digital games, (2) experience with digital games (including platforms) and (3) functional ability to interact with the digital game.*

The following study was conducted as a means to test the domains by exploring those qualities among older adult non-gamers. Although an abundance of findings were gleaned, this manuscript hones in on the identification of aspects that hinder digital gameplay among this population.

3 Methods

Because this study is an extension of a larger, prior study, the same methodology was used to promote continuity. With that in mind, a grounded theory approach was used [25–27]. This methodology is typically employed when there is limited knowledge on a subject matter.

Also, similar to the parent study, there was an eye toward the role of a temporal perspective of life events that related to "play" and "digital games". This lends to the application of a life course lens, as it highlights the importance of individual life experiences [28, 29]. By asking participants to share their own story and perceptions, there is a greater opportunity to have a richer understanding of the origin and development of personal themes. In addition, pertinent aspects can be compared among those interviewed.

This writing focuses on one primary question that was asked of the older adult participants who do not play digital games:

What factors hinder older adult from engaging with digital games?

3.1 Participants

The parent study consisted of two groups of participants: *Older Gamers*, Age 60 to 77 (19 females, 11 males) and *Middle-Age Gamers*, Age 43 to 59 (16 females, 10 males). However, this study honed in on the older of the two groups by exploring characteristics of *Older Non-Gamers* – persons age 60 years and older. (A future study will examine *Middle-Age Non-Gamers*.)

3.2 Inclusion Criteria and Recruitment

Candidates for this study had to meet the following requirements:

- Be at least age 60 or older
- Not currently play digital games on a regular basis
- Report having at least a "fair" health status

To identify candidates, a range of recruitment strategies was employed. The initial search consisted of snowball sampling information about the study was shared and passed along to persons within the community. This included individuals promoting this opportunity with others via social media. A flier was also distributed to members of local senior organizations and an advertisement was placed in a local emeriti newsletter. Interested persons were instructed to contact the primary investigator via email or office phone so that the details of the study could be reviewed, including the candidate's eligibility. It merits noting that the term "digital game" was explained and described on advertisements as "any game that is played on an electronic device, such as a smartphone, tablet, or computer."

For those who met the inclusion criteria, a meeting time was arranged to be held at either the participant's house, a quite public location (e.g., a reserved room at a library), or the investigator's office to share further details about the study. And, if preferred by the participant, the study proceeded with the interview.

3.3 Interview Guide

Nearly identical to the parent study, a semi-structured interview guide was created to explore the notion of "play" and "digital games" throughout the life of the participant by exploring its role or integration at different life stages. This pertains to childhood (up to age 19), young adulthood (ages 20–39), middle adulthood (ages 40–59), and older adulthood (ages 60 and above) [30].

The interviews began by creating a general timeline of their life. Participants were asked when and where they were born, aspects related to family characteristics and structure (both in childhood and adulthood), and education and career milestones.

The participants were also encouraged to share any additional aspects that they deemed worthy to create their personal timeline. By doing so, this provided a template for being aware of the individual's general position or circumstances in life when exploring a certain stage. For example, this may include their occupation at that time and family structure.

After establishing a general timeline, the participant was asked to define "play", as it is a very subjective concept. Next, each participant was asked to recall how he or she engaged in play at each developmental stage and the factors that contributed to play engagement.

Although none of the participants reported being a current digital game player, they were asked if they had been exposed to or played digital games (or digital game technology) at any point. This also included asking the participant about self-identified barriers or hindrances to digital game engagement, if it did not already surface organically within the interview. Finally, the interview was concluded by asking participants if they anticipated any circumstance where they may play digital games in the future.

3.4 Analysis

All interviews were digitally recorded and transcribed verbatim. To aid in validity and accuracy, member checking was employed by providing a copy of the interview to each respective participant and asking each to provide any feedback they deemed appropriate. Next, interviews were uploaded into a qualitative analysis software program (NVivo 10) to identify and categorize themes. A variety of coding techniques were used to assess each interview – open, axial, and selective – along with the application of the constant comparison technique [25–27]. This process was employed concurrently throughout the study so that findings could help shape and guide subsequent interviews.

4 Findings

A total of eleven participants were individually interviewed (3 male, 8 female) and ranged in age from 60–89. All but one of the participants reside within the immediate vicinity of a university-based, small town in Ohio. In addition, all participants reported having at least a high school education, yet most reported having a college education.

The interviews ranged in length of time, mostly depending upon the time availability of the participant. On average, they were two hours in length and most occurred either in the participant's home or in the primary investigator's office.

Review of the transcripts and codes resulted in select themes that reflect the reason why the participants within this sample do not currently engage in digital gameplay.

4.1 Theme I – Limited Knowledge of Game Platform Technology

All of the participants shared stories that highlighted some level of exposure to gaming technologies even if they did not use that platform for gameplay. This was explored with

participants as a means of understanding if there was an association between access to platforms and comfort with engaging with that technology to play a digital game.

In most cases, the technologies discussed were in reference to computers, tablets, and smartphones. However, this does not mean that the participant owned or owns multiple platforms in which a game could be played. And, in most cases, introduction to and personal interaction with these types of technologies typically began within their workplace.

Only one participant, (male - age 66) expressed that he has had minimal exposure to game-related technologies, which he attributed to his former career as a mechanic. Ironically, he owns a smartphone, yet only uses it for basic phone calls because he is unaware of its features and capabilities. When asked about his experience and comfort level with such technologies, he responded with the following.

> I'm almost to the point, I guess, you would call "electronically challenged people." Probably, what I need to do is get involved in [taking courses to] introduce [me] to modern technology, some of the stuff that's out there. I have difficulty playing with new cell phones.

Six other participants expressed that they have experience with game-related technologies and their familiarity is what regard as "the basics" (i.e., emailing and/or texts). A female (age 76) believes that her age is related to her limited experience and comfort with game-related technologies.

> I'm a relic of the past and I'm also mechanically and technology challenged. I don't function well in that world. I do better doing the things I've always done and know how to do.

Some of the additional reasons the participants provided as to why they have limited interaction with these technologies relate to (1) limited exposure when they were employed (i.e., pre-retirement) and (2) poor internet access. A male (age 73) cited both of those for being primary barriers for his knowledge of game-related technologies. Although his former job as a guidance counselor required some computer use, he only knew how to perform what he regarded as basic duties (e.g., looking up a student's name.) He later shared that he heavily relied upon his secretary to compose correspondences and other tasks that required greater computer familiarity. He expressed that this kind of reliance was typical, so there was no need for him to learn much beyond his basic level of computer literacy.

> I never really have become engaged in that [computers]. Keep in mind that the closest we came to anything like that when I was in high school was typing [on a typewriter], back then was called "typing"…. As a guidance counselor I had to use computers to look up things and typing schedules and things like that… Our computer set up here [at home] is still a dial-up type thing so we can't do a lot on that.

4.2 Theme II: Digital Game Engagement is too Challenging

Another issue that was brought up among participants pertains to perceived barriers related to the actual game or platform, which hinder engagement. Those who reported an attempt at playing digital games at some point voiced that they had problems with one of the following: (1) game controller manipulation, (2) the pace of the game, and (3) functional ability issues that thwarted gameplay.

A female (60) shared that she once tried playing with family members and found the fast-pace nature of the game was too challenging for her to keep up. Ultimately, this frustration was enough to forego any future play.

> Then I'd look at these video games that they're watching. They're so virtual worlds. They almost make me dizzy how fast that they go through them, whether this character is going through this tunnel or not and he's shooting this character… I would try with those nephews to sit down and play video games with them. It was really hard.

Similarly, another female participant (age 67) reported that she had difficulty in manipulating the game controller, specifically the buttons, and her ability to keep up with the pace of the game. Ultimately, this experience strongly influenced her opinion of digital games and she did not attempt to play again.

> It was too frustrating. It was like too quick with the buttons. I couldn't get the left or right… Oh I got the wrong hand, so it's frustrating and not being competitive. I don't want to master this so I could not run into a something on a video screen, I'd rather read. I'd rather watch a dumb TV show and knit at the same time.

This participant also expressed that it can be difficult for her to interact with a platform's screen due to visual impairment. "I think it's a physiological thing with my eyes. I'd much rather have that book in my hand." Similarly, another female (age 60) has vision problems, yet she wants to play digital games on her computer. She ultimately expressed that this functional impairment is a significant barrier from her gaming even though she once enjoyed it.

> When my computer was up and running, I did play *Solitaire* but that's about the only thing that I did play. Sometimes, you can just sit there and gaze at that screen. I've got an eye disease that's an inherited thing. The numbers all merge. The words all merge together. It's not good for my eyes. That's probably a deterrent to me, too, to want to use a computer.

4.3 Theme III: Digital Games are not of Interest

There were numerous times during the interviews when participants expressed that they were simply not motivated to play any kind of digital game. When this kind of sentiment was expressed the primary investigator encouraged them to elaborate further in an attempt to identify the exact barrier. In most of these cases, the overall feeling towards digital games were contemptive. Specifically, digital games were referred to as a "waste of time". This is noteworthy because this may associated with a decreased likelihood of engage in this activity.

A female participant (age 67) was asked of her opinion of digital games and she gave thought to her own mother who played, and still plays, digital games. Although she acknowledged that playing may be beneficial for some, it had no place in her life.

> They [digital games] just don't speak to me at all. They're sort of a waste of time but my mom when she was my age, she really got into Tetris…. I know that's good for your brain. She is also a bridge player, my mom. She played Duplicate Bridge for a year. She's a master bridge player, all these gold points… there's nothing in me that would want to do that.

Another female (age 72) who also expressed that it was a waste of time, later admitted that she used to play *Spider Solitaire* regularly on her computer before bedtime.

Yet, she also expressed that she did not think that playing a card game on her computer would constitute a "digital game." Thus, this also relates to the older non-gamer's understanding of what a digital game is or what it fully encompasses. This female was one of the seven participants who did not seem to grasp the full scope of digital gaming, especially in relation to traditional games (e.g. card games) that can now be played digitally or games that are typically associated with younger populations of gamers.

> It's a waste of time… *Spider Solitaire* was something that I played usually just before I went to bed [most nights] and it relaxed me… I'd play a few games and then go to bed… It wasn't a waste of time because I was doing it to get ready for bed.

Two of the participants regard digital games as violent in nature and generally referred to them as "shoot 'em ups", yet acknowledged that there could be more genres out there than they were aware of. Contrary to her peers in the sample, one of the two participants (female, age 69) shared her that she had limited awareness of digital games, yet after discussing the topic, was open to learn more. In fact, she acknowledged that she may even enjoy playing but noted that her interest was strongly related to whether or not there was a social component. This is worth highlighting because she is unaware that games can be played within a social context [1].

> I haven't sought [digital] games. The only thing I really hear about or see are the shoot 'em up type things. There is a lot of other things out there that I don't know anything about… Maybe it would be something I'd like to do, but generally I think it is the social contact with somebody else that's more important to me than spending time [on digital games.]

Another participant, a female who is 89-years-old, is not interested in playing digital games because she believed it is impersonal. Although she was aware that games could have social component, she would prefer to engage with persons one-on-one. It is worth noting that she was unaware that some digital games can include that one-on-one component by engaging multiple persons in the same room (e.g., Wii Bowling). She, along with four other participants, was largely unaware of how digital games could facilitate in-person socialization.

> Well for those that enjoy it they should do it, but it just doesn't appeal to me. I don't ever ever play game on a computer or on my Kindle or anything - never. I have two sons who played chess on the computer and I watched them but I had not participated in them. Doesn't really appeal to me. They really like it, they can play with people all over the world, and they can have teams, there's something there for everyone. Just isn't my cup of tea… [because] I guess I'd just be by myself.

5 Discussion

This study described the prominent themes that surfaced when asking older adults non-gamers about their perceptions of and lack of engagement with digital games. When considering the theoretical domains that surfaced in the original study of middle-aged and older gamers, there is a connection with the themes that provide support to the theory. Although a participant may not have expressed a deficiency in all three areas, all of the participants provided information that suggested that they may be "weak" in at least one domain.

The first theme discussed, *Limited knowledge of game platform technology*, relates to the domain – "experience with digital games (including platforms). Participants varied in their experience levels with game-related technologies. Yet, those who had limited knowledge (and comfort) with these technologies suggested this as a reason for why they do not play games.

Theme II, *Digital game engagement is too challenging*, is associated with the domain – "functional ability to interact with the digital game." Aspects that were brought up within that theme revolved around physiological and cognitive considerations. These negatively influenced the ability to keep up with the pace of a motion-based game, the successful manipulation of a game controller, and the ability to see critical elements of the game (i.e., visual impairment). Similar to the first theme, the barriers discussed within this theme can decrease the strength of this domain.

The final theme, *Digital games are not of interest*, is associated with the remaining domain – "motivation to play digital games." Some of the older non-gamers saw little to no value in playing digital games, as it was seen as a waste of time. Yet, it is worth noting that if the social element that is available in some forms of gameplay becomes apparent, then the motivational strength may be sufficient to prompt engagement. Finally, the aversion to "shoot 'em ups" as a deterrent to gameplay is consistent to prior research conducted on older adult attitudes toward "shooter" gamers [31].

6 Conclusion

This study examined the characteristics of 11 older adult non-gamers, ranging in age from 60 to 89. As an extension of a larger one that focused on exploring the characteristics of middle-aged and older gamers, this current study aimed to identify hindrances to gameplay. In addition, the findings were compared to the theory that was developed within the parent study to assess its validity.

The three primary themes that surfaced from the proposed research question supports the theoretical domains and gives reason to probe this line of inquiry further. In addition, there is a dearth of studies that specifically target older non-gamers within the context of "audience studies" research. This would be a valuable departure being that ample game-related research has been conducted with this population, yet none hone in on identifying the underlying elements that distinguish them from their gameplaying counterparts.

The current study would have benefited with interviewing more older non-gamers and by spending an even greater time on deciphering not only the theme-related elements, but also their origin within a life course context.

In addition, it is important to recognize that the vast range of characteristics that are attributed to both the older gamers and non-gamers will continue to modify over time as individuals age into this this stage of life. And, although it is likely that there will be a greater proportion of older gamers in the coming years, it is necessary to understand the life course events and transitions that distinguish them as a unique and dynamic market.

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