Time to Reminisce and Die:
Representing Old Age in Art Games

Cosima Rughiniş, Elisabeta Toma
University of Bucharest
Schitu Măgureanu 9
Bucharest, Romania
cosima.rughinis@sas.unibuc.ro, elisabeta.toma@sas.unibuc.ro

Răzvan Rughiniş
University Politehnica of Bucharest
Splaiul Independenţei 313
Bucharest, Romania
razvan.rughinis@cs.pub.ro

ABSTRACT

Gender has recently increased in relevance as a game analysis topic. Representations of masculinity and femininity in games have become a growing interest for scholars. Still, little has been written about representations of aging and older persons. Starting from this status-quo, we propose an analysis of age displays in a subtype of video games, namely casual art games. These are designed to encourage reflexivity and perspective-taking on a given topic, examining the human condition and offering a critical view of society. We examine several casual art games and we discuss how they depict and model older characters and the process of aging: What are the game-based narratives of aging? How are elderly characters portrayed and what place do they take in the emerging game story? How do game mechanics model the situation of 'old age' and the process of 'aging'?

Keywords
Art games, age representations, age rhetoric, aging, older adults

INTRODUCTION
In the game world, gender has recently increased in relevance as a research subject (Williams, Martins, Consalvo, & Ivory, 2009; Wohn, 2011). Representations of masculinity and femininity in video games have become a growing interest for scholars (Behm-Morawitz & Mastro, 2009; Dietz, 1998; Jansz & Martis, 2007; M. K. Miller & Summers, 2007). Gender has also become a hot topic in public debates – see for example Sarkeesian's 'Tropes vs. women' video series (Sarkeesian, 2014) and the heated replies that it has received. The Gamergate controversy is an example for the public salience of gender for discussions of video games (Parkin, 2014; Suellentrop, 2014; Wingfield, 2014). Still, age representations are a much less studied topic – but see Williams et al. (2009), who document the statistical sub-representation of older characters in games.

At the same time, games are increasingly seen as adequate activities for elderly persons. On the one hand, the first generations of children and adolescents who grew up with

video games are now adults and approaching older ages. On the second hand, research in cognitive aging increasingly recommends video games as solutions for maintaining cognitive functions (Lustig, Shah, Seidler, & Reuter-Lorenz, 2009; G. Miller, 2005; Nature Neuroscience, 2007). We thus propose to orient our attention to representations of age in video games, with a focus on old age and aging.

RESEARCH QUESTIONS

We aim to investigate representations of older persons and of aging in digital games. We focus on the so-called 'art games', a member of a family of games with a purpose that also includes 'philosophical games', 'grave games', 'existential games', 'news games', 'notgames', or 'interactive art'.

Art games are oriented towards reflection, in addition or in place of entertainment. They aim, as a rule, to prompt players to think about the human condition and the society we live in. They may also encourage reflection on the medium itself, subjecting to scrutiny mainstream approaches in game design. Given the higher reflexivity and critical purpose of art games, *we ask whether art games include a diverse range of representations of elderly persons and aging*, or whether they remain confined in stereotypical representations. We focus on casual art games, lasting between a few minutes and a couple of hours – as casual games have a specific rhetorical profile, distinctive from longer games (Wohn, 2011).

We examine the diverse ways of depicting aging and older persons in art games, focusing on three elements – game narratives, characters, and game mechanics:

- What are the *narratives of aging* that emerge through gameplay?

- If and when players encounter *elderly characters*, how are they portrayed?

- How do *game mechanics* model the situation of 'old age' and the process of 'aging'?

We illustrate our argument with games available on Windows and Android. We have attempted to find as many casual art games that include representations of old age or aging, but our list is necessarily incomplete. Starting from our collection, we document a very limited repertoire of representations of old age and aging. We therefore welcome any examples that would enlarge this rhetorical spectrum.

THE RHETORIC OF GENDER AND AGE IN VIDEO GAMES

What game elements have rhetorical significance for representing gender and age?

Video games create a game world, defined through graphical representations and text, enabling (and constraining) player actions through game rules and mechanics. Thus, game interpretations depend on game affordances (Treanor, Schweizer, & Bogost, 2011).

Procedures are key constituents of game messages; several scholars have argued that games use primarily a procedural rhetoric (Bogost, 2008; Treanor, Schweizer, Bogost, & Mateas, 2012; Treanor & Mateas, 2009; Treanor, Schweizer, and Bogost 2011).

Bogost (2008) proposes procedural rhetoric as an important vehicle for meaning in games. He describes the rhetoric of the games as persuasive through processes, referring

to the "ideology in its computational structure". Treanor et al. argue that the question we should ask when analyzing a game is "what are its processes arguing?". They also point out the case of games with many possible interaction scenarios, in which unintended procedural rhetoric may occur, thus loosening its political meaning (Treanor and Mateas 2009).

At the same time, mechanics often create meaning in a narrative context rendered through graphical, linguistic and musical resources, in which the player identifies and interacts with characters. While not all games include characters, all the games that we analyze here have a gameworld structured around characters and a narrative, by virtue of our chosen topic. Gender and age may be represented through game mechanics but also through graphic design and story elements. For example, Treanor et al. (2012) analyze The Marriage and point the importance of "not only the rules of the game, but also the gender connotations of the blue and pink squares."

We shall thus examine game mechanics and the narrative and graphical elements relevant for representing old characters and aging, inquiring into:

- The narrative elements of the games that define aging as a process: how does old age and aging appear in the story of characters' life?

- Elderly characters: what are their strengths? What are their weaknesses? What is their purpose and mission? What is their voice? How do they evolve during gameplay?

- Game mechanics that model old age or the process of aging.

Gender and age displays as rhetorical resources

Goffman (1979) has introduced the concept of 'gender display' to capture the socially constructed methods through which people present their gender-related identities in interactions with other people. Gender displays are 'conventionalized portrayals' performed especially in the brief ceremonial moments that punctuate social interaction, such as greetings and other forms of politeness. Presenting oneself as a woman (of a certain type) or as a man (of a certain type) was, and still remains, a critical element of one's self-presentation in social situations (Goffman, 1959, 1977)

West and Zimmerman (1987) discuss gender as a social classification that is continually done and undone, manifested and challenged in interaction; in order to 'do gender', that is, to invoke gender as relevant and to present oneself as appropriately feminine or masculine, people use a series of symbolic resources available in their social situation (from clothing to movement style, speech patterns, postural arrangements, division of labor and knowledge etc). A similar argument was made for age (Laz, 1998). In each situations in which they find themselves, *people find ways to affirm their and others' gender and age, engaging in gender- and age-coded behaviors*.

The cultural code shared in a certain culture for expressing gender and age is also used by creators of public messages as a *rhetorical resource*. In particular, Goffman (1979) observes that gender displays are very useful for designers of advertisements, since gender-coded situations are recognizable at a glance. Advertisements that present men and women in manly, respectively womanly stances benefit from instantaneous recognition of a situation and can thus position their product in a split second, without need for clarifications. Gender displays are also a resource for humor. A similar argument

holds for *age displays* (Mooney, Brabant, & Moran, 1993). *We expect that short art games may also use conventional, stereotypical age displays, since they must also face the constraint of conveying a message in a brief lapse of time.*

PORTRAYALS OF OLD AGE AND AGING IN ART GAMES

Games can be played for entertainment or seriously, or both. We found that games which target the older persons are recommended by scholars with a serious orientation, for instance for their medical benefits (see for example Lustig et al., 2009; G. Miller, 2005; Nature Neuroscience, 2007).

Games made especially for entertaining older persons are all but invisible in scientific reflection. There is also virtually no discussion of reflexive benefits of gameplay – for example, how games could offer older players a time to empathize with characters and thus reflect on their own lives.

This scientific focus on *gameplay as a cognitive enhancement for elderly people*, with virtual *no attention for empathy and identification with game characters*, is indicative of a broader social definition of aging as a process of degradation that requires reparations, and older people as requiring, foremost, maintenance.

The narrative of aging

Quite a few art games address the topic of the life course, prompting players to reflect on the meaning of life. What counts as a meaningful lifetime? Is it actually possible for a lifetime to be meaningful? *What about the significance of aging and old age?*

Passage (Rohrer, 2007) portrays aging as an irreversible, fast prelude to death. Aging is also something that may happen at the side of your significant other, continuing after her or his death. Life means aging. Also, there is no significant change that comes with aging other than visual - except for the death of the partner, which leads to slowing down the playable character.

In Passage old age appears solely as a prelude to death, adding virtually nothing to the meaning of life – and this can also be seen in game reviews. Players do not invoke the game to reflect on aging, but on the finitude of human life: "The lesson we can take from this game is that while death is a depressing fate we must all go through, we can make the best use of our opportunities to do great things in the limited amount of time we are alive." (Wallace, 2012). Or, as Meer writes, 'I'm a little sad today. Why? Because I've been playing a short game about death. Not just my death, but also the death of the woman I love. Happy Friday, everyone. Jason Rohrer's free indie experiment Passage is a pixel-art, 256 colour maze game, of sorts. While you can head in several directions, there's only one ultimate destination – and that's your death. The game lasts for five minutes, and as you move forwards, two things happen. One, your tiny sprite visibly ages – his blonde hair turns duller, then whiter, then starts to disappear; he gradually hunches, and eventually slows down, until he stops, forever' (Meer, 2007).

In **The Graveyard** (Tale of Tales, n.d.), old age is also constructed as closely tied to death – not only in time, but also in space and through passing thoughts (memories, interests). The only playable character is an old lady, entering a graveyard. The character can walk around, although it is quite difficult because the old lady is slow and clumsy. The player has limited view to the left and to the right, so the easiest thing to do is to go straight forward to a bench. These are also the main instructions, to go to the bench and

turn around. When the player does this, the old lady sits down and starts thinking about mundane aspects of her life. Then a song starts and you can follow her thoughts. Then you can decide for her to stand up and get out of the graveyard, the same way she came in. For players who buy the complete version of the game, she may also die unexpectedly – presumably completing the portrayal of the old lady with what was critically missing, namely the actual prospect of death.

Home (Increpare Games, n.d.) is a game in which you control an older person as the playable character. The gameplay is built around the needs of the old man in a retirement home. Whatever the player does (as Charles) to fulfill his needs, there is simply not enough time to achieve psychological and physiological balance; the state of the character deteriorates unavoidably. In whatever order, he will become depressed, artificially fed, and confined to bed. After this happens, he gets to see his daughter; from their talk, you understand that he has also lost memory, not remembering that she comes to see him every Monday. He presents himself as happy, accepting his life - although he is not able to do anything by himself, being artificially fed, wearing diapers and staying in bed all the time. One message of Home is that older people suffer and lose agency: as they become a burden for their family, they are institutionalized and enter into a vicious circle of accelerated de-personalization. Aging means losing personhood, being humiliated and dying socially.

Unlike Home and Passage, in **I am a brave knight** (Bulkypix, 2014) aging is portrayed as a meaningful process. Aging appears as going through life, participating in the important moments of one's life and giving them a meaning. The meaning changes in time, as one passes through the same moments but in different roles (Figure 1). The child becomes a parent, the employee a retiree. Death does not mean anything when one is at the beginning of their life – it is something weird. In time, as people inscribe life with more meaning, death acquires a meaning too.

Figure 1: The child (left) and the older person (right): persistence and change

To the Moon (Freebird Games, n.d.) is an adventure RPG, also considered a puzzle game. The puzzle design is only apparent, as the player's performance cannot influence in any way the story line, and the end is the same regardless of the player's choices along the way. John is very old and, after his wife passes away, he hires a team of scientists to travel back his memory line and implant his greatest wish into his memory, so that he dies happy, knowing he accomplished his dream: to go to the Moon. However, he does not know why he wants this. The main task of the player is to find this out by exploring his memories. Although the game play may be intense at times, this does not affect the main storyline. In the end the player finds out that John had an accident in his early childhood who made him forget about how he met his true love for the first time and how

he promised her to regroup on the Moon, if they never meet again on Earth. He meets her later in his life and marries her, but she keeps on hoping he would eventually remember their first meeting and keeps giving him hints about this. He never remembers. The player does, however, have access to their story together and even sees them going to the Moon together, although a lot of changes take place in John's memory and his story with River, his significant other, is not the same anymore after these changes take place. The end is rhetorically constructed as a happy one. Old age is thus portrayed as a time for being granted wishes, for receiving what you did not manage to do for yourself – not a time for real action and achievement through personal effort. Old age is represented as static and, also, associated with death and the time pressure to achieve everything until the time comes.

ALZ (Carter, 2014): Old age is portrayed through the experience of an older man suffering from Alzheimer's Disease. Old age is only signified through graphic design, as the character has no hair and is dressed in a casual old fashioned way. The disease is suggested by the title. The player also understands that the old man is confused by visualizing his thoughts. His thoughts appear in a bubble, and are available every time he passes by an object. He cannot recognize persons and objects, which appear to him obscured by a black rectangle; he seems to forget a lot. He even forgets his wife, whom he does not recognize. She seems hopeful and supportive. Thus, old age means being disconnected, strange, out of touch, even for one's family. Still, unlike Home and Passage, which convey sadness and maybe a feeling of futility, ALZ communicates serenity and a certain appreciation for the beauty of the world – as it appears, surrounded in mystery, to the main character.

Elderly characters

In **ALZ** (Carter, 2014), the elder is a playable character, but still, it is portrayed as essentially lost in life through dementia. His wife is also suffering as a consequence. The character seems peaceful, although absent minded; their confusion is not rhetorically constructed as dramatic or sad. The only obvious tension that arises is the relationship with the character's wife, because he cannot recognize her. The character does not look affected in an emotionally negative way.

In **Home** (Increpare Games, n.d.), the old man Charles is also playable character, unlike John (To the Moon), who is a secondary character in his own story. This adds up as a positive aspect regarding the visibility of elders in games (Williams et al., 2009). However, the game highlights the humiliation that comes with old age, when one cannot manage their own body – with virtually no attention to any meaningful, rewarding aspect of old age.

Passage (Rohrer, 2007) – The playable character is growing old, together with his significant other, as time passes. The character's choices are limited. The game is focused on his life, only there is not much to say about it. The character does not have much power in changing his life. Little is to be told about the character, aside of his life as an aging process leading to a numerical accumulation of points, in the corner of the screen, to mourning for his partner and finally to death. The lack of specificity in the design of the character may suggest that the character is no one in particular, but all of us – and thus all lives are essentially defined by the prospect of aging and death.

Graveyard (Tale of Tales, n.d.) **-** The old woman is slow and mostly concerned with the past and the deaths of the people she knew. Spontaneous death is the only interesting thing that can happen to her – besides her whimsical, musical thoughts.

To the Moon (Freebird Games, n.d.) - The older character is dying, lying in a state of complete lack of agency. Driven by a profound discontent with his life, he has asked for a radical solution, available in his time through a futuristic device: to replace all his memories with fabricated memories, making him believe, if only for a moment, that he has led a different life.

Here the narrative component is much more important for delivering a certain meaning, and, by looking at it we can see that old age is narrated as a time to be granted even the craziest wishes, and to dream, to accomplish what one has not managed to achieve by then. However, John is not the main character in his story, and he is depicted as rather passive in relation to the achievement of his goal. After all, the playable characters are the scientists, and John does not get to decide much regarding his journey to the Moon.

River, John's wife, appears as an old woman at the beginning of the game, in John's recent memories, just before she dies. She does not say much, only keeps on giving him hints related to the Moon and how they first met, by making paper bunnies looking like a constellation which they drew together back then. River is captive in her past. John tries to understand her, but fails to find out what is on her mind. By only appearing in his memory and being incapable of expressing herself (we also find out that she was diagnosed with autism), River is depicted as even more passive a character than John. Considering the gender and age discrimination old women are facing, we should also consider the issue of intersectionality. At least until now, the category of old women has not been given much attention in game studies.

Figure 2: Pride is a key descriptor of old age approaching death (I am a brave knight)

I am brave knight (Bulkypix, 2014) - While aging is portrayed as a meaningful experience, being old still means losing loved ones, being alone, not having anything left to say. After losing everything one is also ready to die - but with 'pride', as the game highlights (Figure 2). Death is no longer simply the word 'death' (as it were when you

were a child): death means losing life, but it is also a time to invest life with a more powerful meaning.

Mechanics and design expressing old age and aging

In the games that we examined, character age is mostly displayed through graphical signs: the hair (white, colored or non-existent) and, at least in Graveyard, the body posture of the characters. Age may also be communicated through text.

In **ALZ** (Carter 2014), game mechanics are used in order to induce the experience of Alzheimer's disease, rather than to underline the condition of elders. Old age is only signified through graphical design: the character has no hair and is dressed in an old fashioned style. The player can access the old man's thoughts, which seem peaceful. The player also notices the glitches and the time jumps which the character encounters. It seems that the positive aspects of old age are only used in contrast with the disease, in order to create a more dramatic effect of the character's alienation.

ALZ and **Graveyard** are both art games in which narratives, graphics and mechanics are deployed in order to offer the player an empathic experience, similar to the experience of the playable character (Figure 3). The old lady in Graveyard is slow and the player also has very limited speed, finding it rather difficult to move around. The old man in ALZ cannot understand his surroundings and has little control over their memory and their movement. Here, glitches are used to express confusion. The player too encounters these problems, as he or she cannot control the character or have access to his memories.

Figure 3: Game mechanics invite empathy in ALZ (left) and Graveyard (right)

In **Passage** (Rohrer, 2007), life becomes synonymous with marriage, accumulating and aging – as these three processes are the only ones highlighted through the brief span of gameplay. Life is a very short and rather unspectacular road to death (Figure 4).
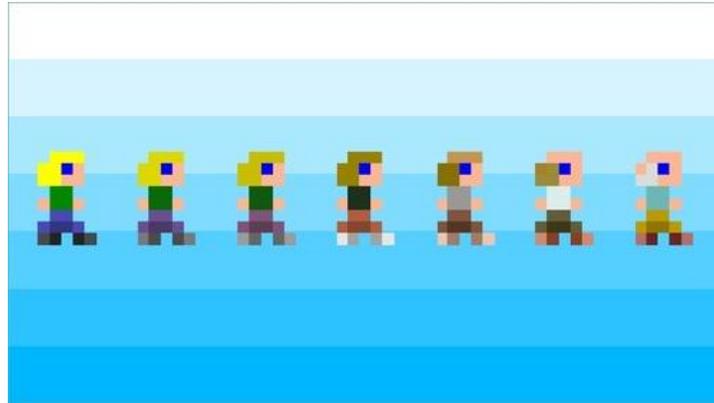
Figure 4: Life is a passage towards old age and death (Passage)

In **I am a brave knight** (Bulkypix, 2014)**,** the age of the characters is suggested through graphical design (Figure 5). Age is a sign for the passing of time and the repetition of the moments is a sign for gaining experience. The only character whose age is not visible is the knight. Age is displayed through height, hair color and hair style.

Figure 5: Old age expressed through graphical design

'I am a brave knight' is the only game we found in this genre that includes a positive message about aging, which is represented as gaining *experience* and shifting *perspectives*. Life is about experiencing the same moments from different roles, learning from each. We invest life moments with meaning, and in time we change the meaning of these moments. Meaning depends on our roles which change in time. Meaning depends on time and repetition.

Besides this gain, in 'I am a brave knight' old age is also rhetorically constructed through the tropes of loss, loneliness and death.

In **Home** (Increpare Games, n.d.), old age is modeled as a serial, unavoidable failure in several domains. The loss of control over one's own body that is associated to old age is expressed through the four available meters, one for each of the man's biological needs.

Overall, in the art games that we have found, age is modeled through a 'rhetoric of failure' (Treanor & Mateas, 2009) – with the notable exception of 'I am a brave knight' that includes an ambivalent representation, with both valuable sides (experience, different perspectives) and losses.

CONCLUSIONS

Art games rely frequently on impaired old characters as rhetorical resources to encourage players to reflect on grave themes, such as loss, loneliness, or de-personalization. When not visibly disabled, old men and women are simply dying.

There is little mention of possible gains of aging – such as experience, wisdom, a certain detachment from and broader perspective on life. There is also a virtual absence of elderly characters with voice and purpose: old people in art games do little else than reminisce and wait to die. That is, elderly characters are rhetorically employed to make a point; they are only 'recruited' into the game in order to support an argument about the finitude of life. Older people do not make their way into games about other serious topics, although there are many games to address them. For example, there is no old age expressed, visually or otherwise, in 'Every Day the Same Dream' (La Molleindustria, 2009) touching on labor and the meaning of life, or 'Inside a Dead Skyscraper' addressing human agency, among others (La Molleindustria, 2010), the 'Coming out simulator' (Case, 2014), 'But that was [yesterday]' (Bean!, n.d.) on moving on with life, 'Love's Cadence' on love (4urentertainment, 2012) – and so on. Of course, this is not to say that any one of these games, or any game in particular, should include elderly characters. It is telling, though, that in the aggregate we can only meet older persons in games that touch on death as part of the human condition. Why not on games about love? Or resilience? Or wisdom? In such games, characters are either young, or lacking any age display.

From a procedural point of view, when age has any bearing on players' actions in art games, it is modeled as a degradation – either through slowness, such as in The Graveyard, or failure, in Home. Interestingly, the only ability that the players can buy in the premium version of The Graveyard is the possibility of unexpected death for the old lady.

As political media, news games and art games provide a critical and reflexive stance on the meaning of life and benefits of social organization. However, they do so at the expense of the social and biological death of older characters.

BIBLIOGRAPHY

4urentertainment. (2012). Love's Cadence. *Kongregate.com*. Retrieved from http://www.kongregate.com/games/4urentertainment/loves-cadence

Bean! (n.d.). But That Was [Yesterday]. Retrieved from http://www.onemrbean.com/?page_id=125

Behm-Morawitz, E., & Mastro, D. (2009). The Effects of the Sexualization of Female Video Game Characters on Gender Stereotyping and Female Self-Concept. *Sex Roles*, *61*(11-12), 808–823. doi:http://dx.doi.org/10.1007/s11199-009-9683-8

Bogost, I. (2008). The Rhetoric of Video Games. In K. Salen (Ed.), *The Ecology of Games: Connecting Youth, Games, and Learning* (pp. 117–140). Cambridge: MIT Press.

Bulkypix. (2014). I am a brave knight. *Google Play*. Retrieved from https://play.google.com/store/apps/details?id=com.bulkypix.iamabraveknight&hl=en

Carter, D. (2014). ALZ. Retrieved from http://www.newgrounds.com/portal/view/634905

Case, N. (2014). Coming Out Simulator. Retrieved from http://ncase.itch.io/coming-out-simulator-2014

Dietz, T. L. (1998). An examination of violence and gender role portrayals in video games: Implications for gender socialization and aggressive behavior. *Sex Roles*, *38*(5/6), 425–442.

Freebird Games. (n.d.). To The Moon. Retrieved from http://freebirdgames.com/to_the_moon/

Goffman, E. (1959). *The Presentation of Self in Everyday Life* (p. 259). New York, USA: Anchor.

Goffman, E. (1977). The arrangement between the sexes. *Theory and Society*, *4*(3), 301–331.

Goffman, E. (1979). *Gender Advertisements*. Harper & Row.

Increpare Games. (n.d.). Home. Retrieved from http://www.increpare.com/2009/10/home/

Jansz, J., & Martis, R. G. (2007). The Lara Phenomenon: Powerful Female Characters in Video Games. *Sex Roles*, *56*(3-4), 141–148. doi:http://dx.doi.org/10.1007/s11199-006-9158-0

La Molleindustria. (2009). Every Day the Same Dream. La Molleindustria. Retrieved from http://www.molleindustria.org/everydaythesamedream/everydaythesamedream.html

La Molleindustria. (2010). Inside a dead skyscraper. Retrieved from http://www.molleindustria.org/dead_skyscraper/game.html

Laz, C. (1998). Act Your Age. *Sociological Forum*, *13*(1), 85–113. doi:10.1023/A:1022160015408

Lustig, C., Shah, P., Seidler, R., & Reuter-Lorenz, P. A. (2009). Aging, Training, and the Brain: A Review and Future Directions. *Neuropsychology Review*, *19*(4), 504–522. doi:http://dx.doi.org/10.1007/s11065-009-9119-9

Meer, A. (2007). Time Goes By. Retrieved from http://www.rockpapershotgun.com/2007/12/07/time-goes-by/

Miller, G. (2005). Computer Game Sharpens Aging Minds. *Science*, *310*(5752), 1261.

Miller, M. K., & Summers, A. (2007). Gender Differences in Video Game Characters' Roles, Appearances, and Attire as Portrayed in Video Game Magazines. *Sex Roles*, *57*(9-10), 733–742. doi:http://dx.doi.org/10.1007/s11199-007-9307-0

Mooney, L. A., Brabant, S., & Moran, S. (1993). Gender and age displays in ceremonial tokens. *Sex Roles*, *29*(9-10), 617–627.

Nature Neuroscience. (2007). Editorial: Exercising to keep aging at bay. *Nature Neuroscience*, *10*(3), 263. doi:http://dx.doi.org/10.1038/nn0307-263

Parkin, S. (2014). Gamergate: A Scandal Erupts in the Videogame Community. *The New Yorker*. Retrieved from http://www.newyorker.com/tech/elements/gamergate-scandal-erupts-video-game-community

Rohrer, J. (2007). Passage. Retrieved from http://hcsoftware.sourceforge.net/passage/

Sarkeesian, A. (2014). Tropes vs. Women. Retrieved from
http://www.feministfrequency.com/

Suellentrop, C. (2014). Can video games survive? The disheartening GamerGate
campaign. *The New York Times*. Retrieved from
http://www.nytimes.com/2014/10/26/opinion/sunday/the-disheartening-
gamergate-campaign.html?_r=0

Tale of Tales. (n.d.). The Graveyard. Retrieved from http://tale-of-
tales.com/TheGraveyard/

Treanor, M., & Mateas, M. (2009). Newsgames: Procedural Rhetoric meets Political
Cartoons. In *DiGRA 2009*. Retrieved from
http://games.soe.ucsc.edu/sites/default/files/newsgames-DiGRA2009.pdf

Treanor, M., Schweizer, B., & Bogost, I. (2011). Proceduralist Readings: How to find
meaning in games with graphical logics. *FDG '11: Proceedings of the 6th
International Conference on Foundations of Digital Games*, 115–122.
doi:10.1145/2159365.2159381

Treanor, M., Schweizer, B., Bogost, I., & Mateas, M. (2012). The Micro-Rhetorics of
Game-o-Matic. In *Proc. FDG 2012* (pp. 18–25). ACM.

Wallace, C. (2012). Examining the Meaning of Life through Passage. Retrieved from
http://nkelber.com/engl295/blog/2012/07/02/examining-the-meaning-of-life-
through-passage/

West, C., & Zimmerman, D. H. (1987). Doing Gender. *Gender & Society*, *1*(2), 125–
151. doi:10.1177/0891243287001002002

Williams, D., Martins, N., Consalvo, M., & Ivory, J. D. (2009). The virtual census:
representations of gender, race and age in video games. *New Media & Society*,
11(5), 815–834.

Wingfield, N. (2014). Feminist critics of video games facing threats in GamerGate
campaign. *The New York Times*. Retrieved from
http://www.nytimes.com/2014/10/16/technology/gamergate-women-video-
game-threats-anita-sarkeesian.html?module=Search&mabReward=relbias:r

Wohn, D. Y. (2011). Gender and Race Representation in Casual Games. *Sex Roles*,
65(3-4), 198–207. doi:10.1007/s11199-011-0007-4