

Reclaiming Agency

Engaging Non-Human Agency for a Nuanced Portrayal of Mental Distress and Recovery

MIRUNA VOZARU

INTRODUCTION

The relationship between digital games and mental health is diverse and multifaceted. Digital games have found use in therapeutic interventions and as a platform for disseminating information and normalizing discussions around mental health.^{1,2} Games often include playable figures and Non-Playable Characters (henceforth NPCs) described as living with psychological or psychiatric disorders.^{3,4} While games used for therapeutic interventions and dissemination have presented both positive and mixed results, the topic of representation has a more troubling history. Representation of people living with mental health disorders has generally been linked to tropes, often highlighting those individuals as violent or

-
- 1 Mandryk, Regan Lee/Birk Max Valentin: "Toward game-based digital mental health interventions: Player habits and preferences.", In: *J Med Internet Res* 19 (4) (2017).
 - 2 Colder Carras, Michelle et al.: "Commercial Video Games As Therapy: A New Research Agenda to Unlock the Potential of a Global Pastime", In: *Frontiers in Psychiatry* 8 (2018).
 - 3 The term 'playable figure' is used in this work according to the description given by Daniel Vella, as both an object of the game system, and an individual in the game's heterocosm.
 - 4 Vella, Daniel: *The Ludic Subject and the Ludic Self: Analyzing the 'I-in-the Game-world'*. Doctoral dissertation. IT University of Copenhagen. 2015.

dangerous. A survey of video games that included both playable figures and NPCs depicted as living with a mental illness identified several prevalent stereotypes. These include those of the homicidal maniac, the afflicted victim, and the narcissistic parasite.⁵ Ferrari et al. have also found that people who live with mental health conditions have been frequently presented as violent or helpless to return to a stable state.⁶ The conclusions the authors draw regarding the portrayal of the experience of living with and confronting mental disorders and mental distress is that the portrayal of characters is negative and limited, and their hope for recovery is slim, often leaving them trapped in a never-ending battle.

Recently, developers working on games presenting characters living with mental health disorders have made efforts to convey a more nuanced portrait of the experience. Ninja Theory, the developers behind HELLBLADE: SENUA'S SACRIFICE (henceforth HELLBLADE), have earned both praise and accolades due to their efforts to involve mental health professionals and individuals who experience psychosis in the development of the game.^{7, 8, 9} Other titles, not developed for commercial purposes, explore various disorders such as Obsessive-Compulsive Disorder, Attention Deficit Disorder, Depression, and Anorexia Nervosa actively involve people suffering from these disorders in the core development team.¹⁰ These games often employ mechanics that act as analogs for the mental disorder they are portraying. One of the mechanics described by Rusch in their game that focuses on Obsessive Compulsive Disorder involves performing rituals such as walking in circles several times to stave off anxiety represented by encroaching darkness. On a similar note, one of the core mechanics of HELLBLADE connotes pareidolia, one of the symptoms experienced by individuals living with psychosis. Pareidolia

-
- 5 Shapiro Samuel/Rotter Merrill: "Graphic Depictions: Portrayals of Mental Illness in Video Games", in *Forensic Sci.* 61 (6) (2016), pp. 1592-1595.
 - 6 Ferrari Manuela et al: "Gaming With Stigma: Analysis of Messages About Mental Illnesses in Video Games", in *JMIR Ment Health* 6 (5) (2019).
 - 7 Stuart, Keith : " Hellblade: Senua's Sacrifice dominates at video game Bafta awards" in The Guardian, April (2018) <https://www.theguardian.com/games/2018/apr/13/hellblade-senuas-sacrifice-bafta-game-awards-2018-what-remains-of-edith-finch>.
 - 8 HELLBLADE: SENUA'S SACRIFICE (Ninja Theory, 2017, Ninja Theory).
 - 9 Tyer, Ben : " How Ninja Theory's Hellblade: Senua's Sacrifice is creating a realistic portrayal of psychosis" in Games Radar+, July (2017) <https://www.gamesradar.com/ninja-theory-hellblade-senuas-sacrifice-psychosis-interview/>.
 - 10 Rusch, Doris C.: "Games about mental health: Designing the experience of "What it's Like"", In: *Proceedings of the 9th International Conference on the Foundations of Digital Games* (2014).

manifests as the perception of meaningful messages and patterns in an otherwise insignificant, random, or ambiguous situation. Senua, the main character in the game and the avatar that the player controls is portrayed as symptomatic of paranoia. This appears in the game in sections where the player must manipulate Senua's position so that the camera enables the formation of symbols out of otherwise unrelated game objects. Mechanical representations of symptoms of mental disorders are thus a procedural means of centralizing them.

Another way in which Senua's illness is mechanically embedded in the game is via a dark mark that appears on her arm when Senua dies. The first appearance of the mark is accompanied by the warning that such repeated failures will lead to the spread of the darkness and, finally, Senua's permanent death. The mark is thus an iteration of a mechanic frequently employed in games dealing with the topic of mental health: the sanity meter. Sanity meters are a means through which the player's actions, through the playable figure, are tracked and contribute positively or negatively to the character's current state. Central to many games, such as *AMNESIA: THE DARK DESCENT*, *DON'T STARVE*, and *DARKEST DUNGEON*, the sanity meter becomes a signifier of mental well-being as a resource that can be exploited or managed.^{11, 12, 13} Sanity meters effectively act as a signifier of the control the player has over the character's mental well-being, just as they remind the player of their responsibility to manage the character's well-being to successfully complete the game. For example, if the player allows the sanity meter in *AMNESIA: THE DARK DESCENT* to deplete, the playable figure will begin to hallucinate, thus hampering the navigation the environment. Likewise, when the stress meter of characters in *DARKEST DUNGEON* becomes full, the character receives a random virtue, such as becoming "Powerful" and dealing more damage, or a random "Affliction," such as becoming "Masochistic" and developing the ability to damage to themselves. Mechanics that connote mental disorder symptoms and mental well-being centralize the player's agency and their role as manager of a playable figure that has no agency over their own mental well-being. In either of the games mentioned above, the player's actions directly influence the character's sanity. Additionally, the mental well-being of the playable figure can sometimes be negatively manipulated and exploited for the sake of rewards. For example, if the playable figure in *DON'T STARVE* becomes mentally distressed, certain enemies begin to spawn who drop items that would otherwise be inaccessible. In *DARKEST DUNGEON*, choosing not to use a torchlight will increase the character's stress

11 *AMNESIA: THE DARK DESCENT* (Frictional Games, 2010, Frictional Games).

12 *DON'T STARVE* (Klei Entertainment, 2013, Klei Entertainment).

13 *DARKEST DUNGEON* (Red Hook Studios, 2015, Red Hook Studios).

while at the same time providing a chance for better loot. In such situations, there are no mechanics in place for the character to protest or exhibit a form of scripted behavior to guard their own well-being.

While mental well-being is presented as a manageable resource, mental distress is often framed as mechanically detrimental to the player's progress in the game. Afflicted characters in *DARKEST DUNGEON* may damage themselves or their allies or increase their allies' stress levels, thus endangering the successful completion of the dungeon. Likewise, when Senua's dark mark first appears, the player is told that once the mark reaches Senua's head, the game will be over. The hallucinations that plague the unnamed protagonist of *AMNESIA: THE DARK DESCENT* also hamper progress by handicapping the player's visual perception of the game-world. Thus, the playable figures and their fragile mental states become detrimental to the player's progression and successful completion of the game. Not only must the player contend with the enemies in the gameworld, but also the dangers presented by the bodies that they are given control over. Coupled with Ferrari et al.'s conclusion that the character's recovery is often unattainable, the player's control over the playable figure's mental well-being may lead to the negative positioning of the playable figure as an inefficient tool whose recovery is secondary to the attainment of ludic goals.^{14 15}

Thus, beyond the portrayal of dangerous stereotypes, depicting characters as violent and incapable of successfully tackling their condition, games have also framed characters that live with mental illness as lacking in agency, wholly dependent on the player for their mental well-being. Character mental health or mental disorders are also frequently portrayed in these settings as merely a resource to be exploited, as seen in the frequent use of the aforementioned sanity meters. Furthermore, the playable figures themselves are presented as an obstacle to progression due to their fragile mental states.

The current chapter discusses how the video game *THE MISSING: J.J. MACFIELD AND THE ISLAND OF MEMORIES* (2018) (henceforth *THE MISSING*) employs changes and fluctuations of agential networks to explore acts of self-harm and the portrayal of recovery.¹⁶ The chapter argues that moving away from the anthropocentric view of agency in gameplay and toward the multiple agencies at play in a digital game allows for more nuanced approaches to the portrayal of

14 Debus, Michael S./Zagal, José P./Cardona-Rivera, Rogelio. E. "A Typology of Imperative Game Goals" in *Game Studies* 20, 3 (2020).

15 Ferrari Manuela et al: *Gaming With Stigma*.

16 *THE MISSING: J.J. MACFIELD AND THE ISLAND OF MEMORIES* (White Owls Inc., 2018, Arc System Works).

individuals living with mental health issues. This perspective will be explored through a study of *THE MISSING*, specifically its mechanical layer, viewed through the lens of Actor-Network Theory and game analysis methods inspired by it.¹⁷ The argument follows two distinct methods through which the game brings the character's mental state, and their agency into focus. The first one focuses on the game's departure from genre-specific conventions, which results in the destabilization of the player's expectations and an increased focalization on the portrayal of the main character's internal turmoil through game mechanics. The second method centers on the destabilization of the relationship the game initially establishes between the player and the character they control, changing it from one of submission to one of cooperation.

DISTRIBUTED AGENCIES AND NETWORK INSTABILITY

Actor-Network Theory proposes that humans and non-humans are agential if their existence, attributes, or actions modify the actions of the other agents with whom they come into contact.^{18, 19} Engaging in the act of playing a game embeds the player in a network of human and non-human agencies, including the technologies that make possible and shape the play session, the game itself, game objects and characters, gameplay modifiers, and of course, other players.^{20, 21, 22} While the player acts within the game, the freedom given to them to do so exists because of,

17 Latour, Bruno. *Reassembling the social* (1st ed.). Oxford Univ. Press. 2005.

18 Ibid.

19 Sayes, Edwin: "Actor-Network Theory and methodology: Just what does it mean to say that nonhumans have agency?.", In: *Social Studies of Science* 44 (1) (2014). Pp. 134-149.

20 Taylor, T. L.: "The Assemblage of Play.", In: *Games and Culture* 4(4) (2009). Pp. 331-339.

21 Hung, Aaron, C. Y.: "Beyond the player: A user-centered approach to analyzing digital games and players using actor-network theory.", In: *E-Learning and Digital Media* 13(5-6) (2016). Pp. 227-243.

22 Harrel, D. Fox/Zhu, Jichen: "Agency play: Dimensions of agency for interactive narrative design.", In: *AAAI Spring Symposium: Intelligent Narrative Technologies II* (2009). Pp. 44-52.

and within, the rules of the game system. Thus, the player becomes a part of an extended network of agencies.²³ As Seth Giddings explains:

“We should resist conceiving of the video game as a discrete and ‘‘whole’’ object. The video game is constituted by software components that effect their own operations and semi-autonomous agency within the video game system. Game worlds and temporalities, modes of presentation, puzzles and combat, engagement with computer-controlled characters, are all constantly configuring the player’s experience and responding to the player’s responses.”²⁴

Avatars have often been characterized as extensions of the player’s agency, or tools that facilitate the player’s access to the gameworld.^{25, 26} This position of facilitators, or extensions of agency automatically cast the role of the avatar as one that is submissive to the player, a disequilibrium relationship wherein the avatar’s body is, within the mechanical bounds of the game, under the complete control of the player. This perspective involves a paradox. While the avatar is intended to be the direct representation of the player’s actions in the game, the control of their actions is unilaterally attributed to the player, thus putting the avatar in a position of submission. This position is underlined, as mentioned, in games that portray individuals living with a mental disorder, through the conventions of portraying that disorder as a hindrance to progression. This approach is facilitated by the anthropocentric perspective of agency wherein the avatar, while seen as a direct channel to the agency of the player, is eliminated from the equation as an agential entity.

Viewing the engagement between the player and the game through the lens of plural agencies enables a deeper look at how a game’s mechanics contribute to the portrayal of characters described as living with a mental disorder. In the context of this analysis, the player is not viewed as an empirical individual, but as the

-
- 23 Leino, Olli: “Who should I call if no one shows up to pick up the dead?# movingout”- On gameness, materiality, and meaning in Cities: Skylines.”, In: *The Philosophy of Computer Games Conference* (2015).
- 24 Giddings, Seth.: “A Glossary for the Microethnography of Video Game Play.”, In: *Games and Culture* 4 (2) (2008).
- 25 Klevjer, Rune: *What is the Avatar?: Fiction and Embodiment in Avatar-Based Single-player Computer Games*. PhD-dissertation, University of Bergen, Norway. (2006).
- 26 Bayliss, Peter: “Beings in the game-world: characters, avatars, and players”. In *IE '07 Proceedings of the 4th Australasian Conference on Interactive Entertainment*. (2007).

entity that occupies the position of operator in the game.²⁷ For this reason, the following analysis that concerns the mechanical relationship formed between the player and the avatar will concern only the formal position of the game operator. This streamlines the adoption of a perspective that allows the examination of the plurality of agencies existent in the game by maintaining focus to only one ontological layer—the mechanical one—and not focusing on the individual interpretative experience of the game.²⁸ The principal benefit of this perspective is that it moves away from an anthropocentric view of agency, wherein the focus would fall on what the player does through and with the playable figure, and towards the roles that each actor has in the fluctuating network of agencies. I say ‘fluctuating’ because these networks are often unstable.^{29, 30} Actors may exert their influence and depart the network, or their relationships with other actors may become so unstable as to become *blackboxed*. Blackboxing occurs when relationships between actors are in a state of stability that no longer fluctuates, allowing for their conjoined functioning to be taken as a whole.³¹ Actors that have become blackboxed no longer leave individual traces in their surrounding network; their agency is subsumed under a single block. To illustrate blackboxing, and its reversal, Latour gives the example of a malfunctioning projector.³² While the projector is functional, all its component parts, electrical circuits, lenses, and so on, fade from focus. Their relationships are stable, and thus can be blackboxed under the singular agency of the projector. However, once the projector is no longer functional, the relationships between the component objects is destabilized, and they reenter focus as the source of the malfunction. This fluctuation in the network of agencies that occurs in the video game *THE MISSING* will be the focus of the following section.

27 Debus, Michael S.: *Unifying Game Ontology: A Faceted Classification of Game Elements* PhD Dissertation. Copenhagen: IT University of Copenhagen. (2019).

28 Aarseth, Espen/Grabarczyk, Pawel “An Ontological Meta-Model for Game Research.” In *proceedings of the Digital Games Research Association Conference. Presented at the Digital Games Research Association Conference*, Turin, Italy. (2018).

29 Latour, Bruno: *Reassembling the social* (1st ed.). Oxford Univ. Press. 2005 p. 65.

30 Law, John: “Notes on the Theory of the Actor-Network: Ordering, Strategy, and Heterogeneity.”, In: *Journal of the Warburg and Courtauld Institutes* 5 (4) (1962). Pp. 379-393.

31 Latour, Bruno: “On Technical mediation.”, In: *Common Knowledge* 3 (2) (1994a).

32 Ibid.

AGENTIAL NETWORKS IN THE MISSING

THE MISSING is a puzzle-platformer game in which the protagonist, J.J., sets out to find her missing friend on the mysterious island of Memoria. While multiple features make the game worthy of discussion, the most pertinent to the topic at hand is the game's portrayal of deliberate self-harm. One of the means through which self-harm is depicted in the game is harmful obstacles. While games like SUPER MARIO BROS. (1985), SUPER MEAT BOY (2010), or LIMBO (2010) present obstacles such as spikes, saw blades, or fire as harmful to the playable character, often diminishing their health pool or altogether negating progress in the game, THE MISSING subverts these genre expectations and extends the relationship between them and the playable character via one of the central game mechanics.^{33, 34, 35} Colliding with an obstacle will result in various states of bodily harm for J.J. Running into spikes, for example, will result in dismemberment; touching fire will result in combustion; and being hit by a wrecking ball will give her a concussion, literally turning the world upside down. While in conventional titles such actions result in an automatic reload from a previous checkpoint or the loss of health points, THE MISSING makes damage necessary to game progression. Dismemberment causes J.J. to lose health points, but the resulting detached limbs become objects in the world that can be picked up and used to solve puzzles. In one of the game's first puzzles, J.J. must be repeatedly dismembered and her body parts must be used as counterweight to cross to the other side of a see-saw-like plank. In other puzzles, J.J. must set herself on fire and, like a human torch, carry that fire with her body in order to clear obstacles ahead by burning them. This use of the character's body is made possible by the existence of another mechanic: regeneration. Regeneration allows the player to fully heal J.J. back to her initial state, erasing whatever horrific harm they have done to her body. While J.J. is in a harmed state—missing limbs, concussed, or set on fire—the player can simply push a button and bring her back to an unharmed state. Through the regeneration mechanic, coupled with the effects of harmful obstacles, J.J.'s body becomes a functional tool, under the control of the game environment and the player, but not under her own control.

In these ways, the game destabilizes previously constructed genre expectations by recasting harmful obstacles in a new type of relationship with the playable figure's body. In games that adhere to genre conventions, the playable figure's body,

33 SUPER MARIO BROS (Nintendo R&D 4, 1985, Nintendo).

34 SUPER MEAT BOY (Team Meat, 2010, Team Meat).

35 LIMBO (Playdead, 2010, Playdead).

its agency over other game objects, and their agency over the body, are typically blackboxed. In the case of *THE MISSING*, this blackbox is opened through the destabilization of genre expectations, resulting in the blackboxed elements being brought into focus. This design choice may be viewed through the lens of the externalization of psychological turmoil described by individuals who engage in acts of self-harm.³⁶ Psychological pain is often difficult to untangle from its source, so much so that the source is sometimes difficult to identify. Thus, physical pain can become a way of “creating a visible signifier for unseen and inexpressible emotional pain.”³⁷ Self-inflicted wounds or other types of physical pain offer the sufferers a tangible, observable source for their pain, one that can be pinpointed and managed. In the act of self-harm, the body is brought back into the foreground, playing the central role, in cases where derealization has caused it to disappear into the background. Self-harm can be seen as invited pain caused by the sufferer to themselves, an exercise in ownership over their body, and an exercise in managing negative emotional tensions. This dynamic is reflected in J.J.’s disposition towards harm, as well as her ability to endure severe injury. The act of inviting pain through self-harm is relegated to the control of the player. The player is the one who enables J.J.’s harming and, in the process, allows her to bring her body back into focus. Whereas players generally coopt avatars to gain access to the gameworld, in *THE MISSING* the player is coopted by J.J. in order to bring the focus back onto the avatar body.

The ending of the game further destabilizes the agential network. As previously mentioned, J.J. can not only withstand extreme physical harm, but she can also be regenerated—by the player. Regeneration, like self-harm, is an integral mechanic of the game, because the puzzles demand that the avatar oscillates from healthy to severely damaged. The player is responsible for deciding when to heal and when to harm J.J., who maintains a passive disposition regardless of the player’s decision-making. However, in the game’s final act, the possibility of regeneration is removed from the player’s control and becomes an automated action that J.J. herself can perform. Throughout the game, J.J. encounters the entity that will become the final monster. During these encounters, J.J.’s only recourse is to flee. This changes, however, in the final act of the game. Represented through an amalgam of lifeless bodies and wielding a box cutter, the entity is an additional metaphor of self-harm. Following the image of her best friend, Emily, being swallowed by the same monster that has hunted her, J.J. remembers that Emily had

36 Chandler, Amy: “Inviting pain? Pain, dualism and embodiment in narratives of self-injury”, In: *Sociology of Health & Illness* 35 (5) (2013) pp. 716-730.

37 Ibid.

committed suicide—and the island of Memoria and the entire game environment is a self-created mindscape. The realization that her life is not yet over empowers J.J. to fight the monster. More tellingly, the realization also grants J.J. control over the regeneration mechanic. During the last segment of the game, as soon as J.J. is harmed by an obstacle, she automatically regenerates. The redistribution of agency over the playable figure's body procedurally highlights her recovery while at the same time maintaining the input of the player as necessary for the completion of the game. J.J. is now in control of her own healing, contributing to the successful completion of the game, while not erasing, but redistributing the player's agency.

These practices of destabilizing relationships continually bring attention to the relationship between the avatar, her body, and the player. Her mental state is not allowed to fall in the background or be considered a manageable resource, as fluctuations of the agency that she displays over them are continuously negotiated. The perpetual negotiations of agency between the player and the character have repercussions over the relationship that is created between these agential counterparts.

PLAYER-AVATAR RELATIONSHIP

From the start, *THE MISSING* moves away from the noted tendency to present the character's mental state as an obstacle to the player. Unlike in games such as *AMNESIA*, or *DARKEST DUNGEON*, where states of mental distress cause the character to become frail and hamstring the player's progress, *THE MISSING* frames J.J. and the mechanics related to her struggle as integral to progressing in the game; J.J. is an asset and never a hindrance. Her mental state does not need to be managed alongside the other obstacles in the game. Instead, J.J. mental well-being is featured as an integral part of the gameplay, aiding in the successful traversal of the game. While the player's initial control over J.J.'s body is similar to previously discussed cases in which players manipulate the character's mental state for obtaining resources, *THE MISSING* distinguishes itself from other titles by rendering control over J.J. as central to progression, thus eschewing opportunistic and/or frivolous use. By contrast, in *DARKEST DUNGEON*, the torchlight mechanic allows the player to maintain a specific level of light as they navigate the dungeon. Diminishing the light will increase the mental distress of characters, but at the same time, it will provide the opportunity for obtaining more loot. The mental state of characters is then sacrificed for the sake of more resources and should the characters succumb to the demands of the dungeon, they can be replaced with other, healthier characters who will benefit from the loot. *THE MISSING*, however, does

not frame J.J. as disposable. Her mental anguish and distress are means of traversing the game and reaching an end point that is beneficial to her, as well as the player.

Avatars express agency via their influences on other objects in the gameworld. Explorations of avatar autonomy generally focus on playable character actions that strengthen their role as an individual in the game's world, or actions taken for the sake of easing player interaction.³⁸ However, by taking control over the regeneration mechanic, J.J. does not only demonstrate autonomy within these parameters, but the scripted behavior in conjunction with the previously established relationship between her body and the harmful objects put her in a position where she can display mastery over the game mechanics. J.J.'s autonomy is thus elevated, mechanically, on a similar level to that of the player. This equivalence, established through the redistribution of agency, places J.J. and the player on similar footing; they share the capacity to achieve the ultimate goal of the game.³⁹ Prior to this event, J.J.'s body maintained the status of a tool that enabled progression, and the harmful acts were likewise, from the player's perspective, functional. Before the final act of the game, it is revealed that J.J. is a transgender girl who suffers from bullying and oppression from her family and peers, thus narratively framing the acts of extreme self-harm as a desire to hurt a body for which she has been chastised. The late reveal enables a misalignment between the player and the character when engaging in acts of self-harm, and then the realignment of their relationship after the redistribution of agency, when J.J. regains autonomy over her body.⁴⁰ By giving the relationship between the player and the playable figure a dynamic, malleable quality, the player-avatar relationship is foregrounded by the game's mechanics, allowing for an experiential comprehension of the roles each of the actors play. Their quasi-equal footing is highlighted, bringing into focus J.J.'s role as an agent of her own recovery and the player's role as assisting ally.

38 Willumsen, Ea: "Is my avatar, MY avatar? Character autonomy and automated avatar actions in digital games", In: *Proceedings of the 2018 DiGRA International Conference: The Game is the Message* (2018).

39 Zagal, José et al. (2019). On the Ultimate Goals of Games: Winning, Finishing, and Prolonging. *Proceedings of the 13th International Philosophy of Computer Games Conference*, St. Petersburg, Russia.

40 Lankoski, Petri: "Player Character Engagement in Computer Games", In: *Games and Culture* 6 (4) (2011).

CONCLUSION

In recent years, video game developers have made efforts to provide a more nuanced, less stereotypical depiction of mental health in video games, one that moves away from harmful, violent depictions of individuals living with mental health disorders towards more informed and informing representations. *THE MISSING* brings into focus the possibilities of exploiting the multiple non-human agencies in digital games and destabilizing them to create games where the playable character is not a victim of their mental distress but an active agent in their own recovery; games, where the player is not their manipulating force, but an ally in their struggle.

BIBLIOGRAPHY

- Aarseth, Espen/Grabarczyk, Pawel “An Ontological Meta-Model for Game Research.” In proceedings of the Digital Games Research Association Conference. Presented at the Digital Games Research Association Conference, Turin, Italy. (2018). Bayliss, P. “Beings in the game-world: characters, avatars, and players”. In *IE '07 Proceedings of the 4th Australasian Conference on Interactive Entertainment*. (2007).
- Chandler, Amy: “Inviting pain? Pain, dualism and embodiment in narratives of self-injury”, In: *Sociology of Health & Illness* 35 (5) (2013) pp. 716-730.
- Colder Carras, Michelle et al.: “Commercial Video Games As Therapy: A New Research Agenda to Unlock the Potential of a Global Pastime”, In: *Frontiers in Psychiatry* 8 (2018).
- Debus, Michael, S. “Unifying Game Ontology: A Faceted Classification of Game Elements” PhD Dissertation. Copenhagen: IT University of Copenhagen. (2019).
- Debus, Michael S./Zagal, José P./Cardona-Rivera, Rogelio. E. “A Typology of Imperative Game Goals” in *Game Studies* 20, 3 (2020) Ferrari M. et al: “Gaming With Stigma: Analysis of Messages About Mental Illnesses in Video Games”, in *JMIR Ment Health* 6 (5) (2019).
- Giddings, Seth.: “A Glossary for the Microethnography of Video Game Play.”, In: *Games and Culture* 4 (2) (2008).
- Harrel, D. Fox/Zhu, Jichen: “Agency play: Dimensions of agency for interactive narrative design.”, In: *AAAI Spring Symposium: Intelligent Narrative Technologies II* (2009). Pp. 44-52.

- Hung, Aaron, C. Y.: "Beyond the player: A user-centered approach to analyzing digital games and players using actor-network theory.", In: *E-Learning and Digital Media* 13(5-6) (2016). Pp. 227-243.
- Klevjer, Rune: "What is the Avatar?: Fiction and Embodiment in Avatar-Based Singleplayer Computer Games". PhD-dissertation, University of Bergen, Norway. (2006).
- Lankoski, P.: "Player Character Engagement in Computer Games", In: *Games and Culture* 6 (4) (2011).
- Latour, Bruno: "On Technical mediation.", In: *Common Knowledge* 3 (2) (1994a).
- Latour, Bruno: "Reassembling the social" (1st ed.). Oxford Univ. Press. 2005
- Leino, Olli: "Who should I call if no one shows up to pick up the dead?# movingout"- On gameness, materiality, and meaning in Cities: Skylines.", In: *The Philosophy of Computer Games Conference* (2015).
- Mandryk, Regan Lee/Birk Max Valentin: "Toward game-based digital mental health interventions: Player habits and preferences.", In: *J Med Internet Res* 19 (4) (2017).
- Shapiro Samuel/Rotter Merrill: "Graphic Depictions: Portrayals of Mental Illness in Video Games", in *Forensic Sci.* 61 (6) (2016), pp. 1592-1595.
- Rusch, Doris C.: "Games about mental health: Designing the experience of "What it's Like"", In: *Proceedings of the 9th International Conference on the Foundations of Digital Games* (2014).
- Sayes, Edwin: "Actor-Network Theory and methodology: Just what does it mean to say that nonhumans have agency?.", In: *Social Studies of Science* 44 (1) (2014). pp. 134-149.
- Stuart, Keith: "Hellblade: Senua's Sacrifice dominates at video game Bafta awards" in *The Guardian*, April (2018) <https://www.theguardian.com/games/2018/apr/13/hellblade-senuas-sacrifice-bafta-game-awards-2018-what-remains-of-edith-finch>.
- Taylor, T. L.: "The Assemblage of Play.", In: *Games and Culture* 4(4) (2009). Pp. 331-339
- Tyer, Ben: "How Ninja Theory's Hellblade: Senua's Sacrifice is creating a realistic portrayal of psychosis" in *Games Radar+*, July (2017) <https://www.gamesradar.com/ninja-theory-hellblade-senuas-sacrifice-psychosis-interview/>.
- Vella, Daniel. *The Ludic Subject and the Ludic Self: Analyzing the 'I-in-the Gameworld'*. Doctoral dissertation. IT University of Copenhagen. 2015.

Willumsen, Ea: “Is my avatar, MY avatar? Character autonomy and automated avatar actions in digital games”, In: Proceedings of the 2018 DiGRA International Conference: The Game is the Message (2018).

Debus, Michael S./Zagal, José P./Cardona-Rivera, Rogelio. E. “A Typology of Imperative Game Goals” in Game Studies 20, 3 (2020)

LUDOGRAPHY

AMNESIA: THE DARK DESCENT (Frictional Games, 2010, Frictional Games).

DARKEST DUNGEON (Red Hook Studios, 2015, Red Hook Studios).

DON'T STARVE (Klei Entertainment, 2013, Klei Entertainment).

HELLBLADE: SENUA'S SACRIFICE (Ninja Theory, 2017, Ninja Theory).

LIMBO (Playdead, 2010, Playdead).

SUPER MARIO BROS. (Nintendo R&D 4, 1985, Nintendo).

SUPER MEAT BOY (Team Meat, 2010, Team Meat).

THE MISSING: J.J. MACFIELD AND THE ISLAND OF MEMORIES (White Owls Inc., 2018, Arc System Works).