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Exploratory Case Studies for Improving Interactive Depictions

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Résumé de l'article

This exploratory study examines three video games as case studies for how
video games may portray mental illness through interactive, non-narrative
design features. The analysis not only reports findings but also offers an
evaluation for how video games might improve in how they depict mental
illness. The games studied are What Remains of Edith Finch, Hellblade: Senua's
Sacrifice, and Doki Doki Literature Club. The analysis identifies how these
games use audiovisual styles, control systems, game goals, and procedurality to
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Portraying Mental Illness in Video Games: Exploratory Case Studies for Improving Interactive Depictions

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Abstract

This exploratory study examines three video games as case studies for how video games may more accountably portray mental illness through interactive, game-centric techniques. The games studied are: *What Remains of Edith Finch*, *Hellblade: Senua's Sacrifice*, and *Doki Doki Literature Club*. The analysis identifies how these games use audiovisual styles, control systems, game goals, and procedurality to portray mental illness, too often in problematic ways. A report of the discovered themes precedes a discussion of innovations--and weaknesses--of those depictions, and how they might be addressed.

Author Keywords

Video games; mental illness; interactivity; analysis; mechanics; design

Mass media portrayals of mental illness are far from ideal, often relying on tropes that misinform public opinion (Wahl, 1995). Past studies of media portrayals of mental illness are vigorous and mostly conclusive, especially in television and news media, and a logical next step is to mobilize that research to improve media depictions of mental illness (Stuart, 2006). Video games bring their own medium-specific traits to the depiction of mental illness, such as interactivity, control systems, and video games' audiovisual styles. However no studies as of yet, even at the exploratory level, describe how games portray mental illness through play-centric approaches.

While this exploratory study does not speak to all video games or to all the ways they may portray mental illness, it offers an exploratory analysis of three games that addresses the potential for games to break away from harmful portrayals by modifying their interactive game mechanics. Following Stuart's (2006) call for media researchers to look beyond cataloguing the many ways mass media depict mental illness either incorrectly or harmfully, this analysis not only reports findings but also suggests directions for ways that video games might improve their depictions of mental illness. Through a textual and qualitatively-coded analysis of three games, this project targets how some games' unique interactive design features may provide innovative approaches to portraying mental illness while also continuing several of the common tropes that persist in mass media. The games studied are: *What Remains of Edith Finch*, *Hellblade: Senua's Sacrifice*, and *Doki Doki Literature Club*. The analysis identifies how these games use audiovisual styles, control systems, game goals, and procedurality to portray mental illness. The

article first provides a discussion of research on mass media portrayals of mental illness and how video games fit in that conversation, followed by a description of the study's research question and method. A report of the discovered themes precedes a discussion of innovations and weaknesses of those depictions of mental illness. The article concludes by relating several implications, limitations, and suggestions for future research.

Mental Illness, Mass Media, and Video Games

Media portrayals of mental illness have, in general, a poor history with respect to their accuracy. Wahl (1995) notes that media portrayals of mental illness most often negatively inform public opinion. Mass media tends to present mental illness as an object of ridicule, and characters with mental illness are often portrayed as being fundamentally different than other characters at best and deviants at worst. These portrayals affect public opinion regarding mental illness and people who experience mental illnesses, and public opinion can translate into policy that unfairly impacts them. Further work by Wahl (2003b) finds that newspapers primarily describe mental illness as dangerous, while contrasting stories with positive portrayals of mental illness, such as of recovery, were practically nonexistent. Stigmatizing depictions of mental illness abound in entertainment media (Diefenbach, 1997; Wahl, 2003a). Wahl (2003a) is also quick to point out how "internet sites and video games have likewise been observed to offer significant mental illness themes," but that "the specific nature of these depictions has not been fully articulated" (p. 254). He continues by suggesting that video games tend to trivialize and ridicule mental illness. News and entertainment media both show people with mental illness as a clichéd trope at best and as violent social pariahs with no hope for recovery at worst.

Stuart (2006) finds that not only are the portrayals of mental illness in both entertainment media and the news robustly negative, but such portrayals lead to reductions in self-esteem, help-seeking behaviors, medication adherence, and general recovery. Stuart (2006) concludes her article with the motivating suggestion that scholars should look to "the more challenging prospect of how to use the media to improve the life chances and recovery possibilities for the one in four people who live with a mental disorder" (p. 105). Content analysis can do more than simply document how media portray mental illness, and instead writers can work towards improving those depictions. For instance, an anti-stigma program in England led to an increase is anti-stigmatizing news articles regarding mental illness (Thornicroft et al., 2013). Working to improve depictions of mental illness is not a fruitless endeavor.

Game Studies and Mental Illness

Game studies has a complicated relationship with mental illness, often targeting—and sometimes supporting—the stigmatizing relationships between video games and players' unhealthy social and psychological behaviors (Seok & DaCosta, 2015). For instance, a study of middle school students found a positive correlation between what the authors claim are game "addiction" behaviors and depression, as well as a negative correlation between social skills and self-esteem and supposedly unhealthy gaming habits (You, Kim, & Lee, 2017). Other work problematizes popular discourses about gaming, addiction, and pathologizing video game play. For instance, Seok and DaCosta (2014) attempt to add nuance to the discussion of compulsive gaming by distinguishing between high engagement play and addicted play, concluding that players might

move through a phase of high engagement before reaching a level of compulsion they could label as addiction. Bergstrom (2017) pushes back against alarmist notions of gaming addictions or compulsion, and both Bax (2016) and Golub and Lingley (2008) problematize the concept of diagnosing compulsive gaming. Work on mental illness in gaming culture can rarely escape the theme of addiction but there has been some work on addressing how games portray mental illness. An edited volume on game characters outlines how several characters have resonated within game culture through their depiction of mental illness (Banks, Mejia, & Adams, 2017; Robinson, 2017; Nay, 2017; Ferguson, 2017).

Games can benefit those with mental illnesses by using gameplay as a non-pharmacological intervention—to aid people with dementia (Cutler, Hicks, & Innes, 2016), military veterans (Banks & Cole, 2016), and people who report personality traits aligned with anxiety, insecurity, and depression (Griebel, 2006)—as well as a mass mediated method of improving understandings of mental illness (Hoffman, 2017). Ultimately, as Schomerus et. al (2012) suggest through their meta-analysis, attitudes regarding mental illness have improved with education regarding it: the public has increased their understanding of the causes of mental illness and the benefits of treatment. Video games can portray mental illness through medium-specific traits such as immersive interactivity. Investigating video games' depictions of mental illness, especially through methods that study those depictions with specific reference to procedurality and control systems particular to games, is one step towards improving such depictions.

Methodological Considerations

The need for a fundamental understanding of how games currently portray mental illness and how they could portray mental illness, underpins the guiding research question for this study:

> RQ: How is mental illness portrayed in video games through interactive or game-centric mechanics?

To answer this question, I turn to Malliet's (2007) Qualitative Video Game Content Analysis as a method that focuses on design principles grouped in seven initial categories: audiovisual style, narration, complexity of controls, game goals, character and object structure, spatial properties of the game world, and balance between input and pre-programmed rules. Anderson (2016) adjusts these categories by renaming the last category "procedurality," given how the initial theme aligns with Bogost's (2007) concept of procedurality, and by adding an eighth category called "production systems." A strength of Malliet's approach is that it invites consideration of how a variety of game design choices can all contribute to a phenomenon. For example, instead of coding whether a particular aspect of a game is "violent vs. not violent," a qualitative content analysis allows for a game's rules, controls, or audiovisual elements to all contribute to a theme of "violence," a useful distinction when engaging in an exploratory analysis of a game experience that can last for dozens of hours. This analysis proceeded using the following qualitative content analysis approach: first, play the games selected for study and collect examples related to the eight themes salient to the research question. Second, replay the games when needed and use external resources, such as wikis and game forums, to find data not initially

discovered in the playthroughs. Third, after gathering data, categorize the data in order to identify patterns across the categories.

The three games chosen for this study were selected based on the variety of gameplay experiences they offer, their relatively recent release, and how differently they each approach the depiction of mental illness: *What Remains of Edith Finch, Hellblade: Senua's Sacrifice, and Doki Doki Literature Club*. The exploratory and textually-focused nature of this study necessitates a small number of case studies. The goal of the findings and analysis is to discover potential methods of improving future portrayals of mental illness in video games, not to catalogue a representative sample.

Themes of Depicting Mental Illness

For the sake of clarity, the findings are first grouped by game and then by Malliet's themes. The findings describe techniques for portraying mental illness that rely on characteristics specific to video gaming as a medium. This focus attempts to discover gaming's medium-specific strengths and weaknesses to the topic at hand.

What Remains of Edith Finch

In *What Remains of Edith Finch*, players alternate between exploring a labyrinthian house and playing through the genealogical histories of several members of the Finch family. Each story section presents its own mini-game, location, and controls. While the argument could be made that several of the game's story sections showcase characters with mental illnesses, only one makes the connection explicit: the story of Lewis Finch. Players control Lewis while a voiceover track of Lewis' psychiatrist explains his descent into mental instability that leads to his suicide. The game portrays mental illness as delusion and detachment, and it does this through its audiovisual style and control systems.

Audiovisual style in Malliet's (2007) method includes any audio or visual design choice that contextualizes the game experience. In *Edith Finch*, the audiovisuals draw attention to the character's changing mental state, and thus merit inclusion in the study. The game's audiovisual style changes over the course of the story, beginning with players seeing Lewis' hands as he methodically chops fish. As the voiceover narration explains Lewis' battle with substance abuse and depression, a portion of the game screen opens, like a thought cloud in a comic book, showing a rudimentary top-down arcade-style game. This second screen grows over the course of the story, eventually overtaking the "reality" of Lewis chopping fish so that players only see the "video game" fantasy Lewis creates for himself to escape reality. The "video game" fantasy also changes in audiovisual style: it begins with a simple character sprite that players move through a simple dungeon-like maze, but it shifts to more and more realistic graphics and camera angles to the point where the story ends with a first-person perspective exploration game. The story ends when players guide Lewis, now completely in the "video game" fantasy in a first-person perspective, to his coronation: he kneels at a guillotine to receive his crown, and the "real" Lewis is decapitated by the same machine he used to chop fish.

Control systems include game design elements that mediate the interaction between the player and the game, including physical game controls as well as the immediate consequences for input choices. These systems also include the ways controller inputs demonstrate consistency in

consequences or how those consequences change throughout the course of the game. In the case of *Edith Finch*, the control system is worth noting for how it separates the actions for each of the player's hands: one hand controls the progression in Lewis' fantasy "video game" while the other hand controls how the character chops fish. When played with a mouse and keyboard, the mouse controls Lewis' hand: move the mouse left to grab a fish, move it right to chop it. This action continues through almost the entirety of the story section even as the fantasy "video game" takes more and more of the screen. The keyboard's WASD keys move the "video game" fantasy character. In short, one hand controls Lewis' reality while the other hand controls his fantasy. Occasionally, moments arrive in the fantasy that require players to chop a fish in "reality" in order to continue, such as opening a door locked by a giant fish, but apart from these brief moments, the fantasy and reality do not interact.

Hellblade: Senua's Sacrifice

Hellblade: Senua's Sacrifice is a third-person action game based on Irish and Norse lore and history. Approximately eighty-five percent of gameplay consists of exploring areas and solving puzzles while the remaining fifteen percent involves combat with various monsters. Players control the titular character, Senua, as she descends into hell as part of a vision quest to rescue her lover. Throughout the game, Senua experiences auditory and visual hallucinations indicative of psychosis, which the American Psychological Association defines as a "gross impairment in reality testing" or "loss of ego boundaries" (Arciniegas, 2015). The seeing and hearing symptoms of Senua's psychosis, called her "darkness" in the game, both aid and hinder her quest. The analysis reveals four themes regarding how the game portrays mental illness: as a gift, as a result of expertise, as a hell/curse, and as a process of overcoming challenges. These themes manifest through the game's procedurality/rules and audiovisual style.

Procedurality/rules dictate what players perceive as their choices and limitations in the game's world, and how those guidelines prioritize particular behaviors or game mechanics. In *Hellblade*, the game showcases Senua's mental illness as a gift through procedurality/rules: a regularly occurring puzzle in the game consists of a locked door with the images of several runes indicating which runes Senua must find to unlock the door. However, she must use her unique perspective as a person with psychosis—people with psychosis sometimes report seeing connections, repetitions, and patterns in the world—to find these runes in the shapes of the area. For instance, when finding a rune shaped like the letter X, she may have to stand on a staircase and align her sight so that two unrelated stones line up to form an X in the distance. Upon seeing the requisite runes, the door unlocks, and players can progress in the game. A similar visual puzzle, repeated several times in the game, consists of shattered images that Senua must see as a complete image by aligning herself in just the right way. Upon doing so, the image turns into a reality, such as forming a staircase to allow access to the rest of an area.

The game also portrays mental illness as a process of overcoming challenges through its procedurality/rules. The rules of the game allow players to die or otherwise fail and restart not long before the challenge began. If Senua dies when fighting a monster, the game quickly re-loads to the beginning of the fight. *Hellblade* connects this rule to her fight against her symptoms: she recognizes that she died, and she appears again with the blackness on her arm growing further up her body. She may continue to fight, but her mental illness visually grows on her arm every time she fails.

Hellblade's audiovisual style often portrays Senua's psychosis as a gift, primarily through colors and other in-game effects. Senua will occasionally experience a beautiful hallucination, such as walking through a field full of vibrant, oversaturated colors. Other times the game will use in-game visual effects to render images as glowing and repeating, and these effects adjust as players move through an area as if they are seeing a lens flair in a movie. The in-game documentary about the making of the game—found in the game's main menu—describes this effect as similar to a kaleidoscope, and the effect was inspired from interviews with people who suffer from psychosis. Additionally, the auditory hallucinations can be helpful in the form of providing tips to players, such as telling them where to go in an area or what to do to save themselves in a moment of combat.

The game consistently reminds players that its portrayal of mental illness—specifically psychosis—is a result of expertise and research. It does so through various audiovisual systems, the first of which is the opening title cards/splash screens upon opening the game. The first screen reads:

> WARNING This game contains representations of psychosis. People with experience of psychosis as well as professionals in psychiatry have assisted in these depictions. Some may find these depictions disturbing, including those who, themselves, may have had similar experiences. If you would like to find out more about psychosis and mental health difficulties visit: www.hellbladehelp.info

The end credits also include a list of researchers, doctors, and other "mental health advisers." By extension, the game includes a thirty-minute documentary that details how the designers went about portraying mental illness and psychosis, and much of the runtime shows interviews with people who experience psychosis. In the middle of the documentary, quotes from interview subjects appear on the screen, describing their experience with psychosis, followed by in-game footage that depicts those experiences. Those quotes include:

> "Everything seems to be coming closer and bigger all the time." "Everything is in bits. Like a photograph that's torn and put together again. If you move its frightening." "When I move quickly it's a strain on me. Things go too quick for my mind. They get blurred…" "I often see waviness and melting of the walls. It makes me feel nauseous." "At times there is nothing to hold onto and I go into a trance." "The mind goes blank and everything gets switched off."

The in-game footage shows audiovisual design choices that mimic these descriptions, such as moments when shapes/colors move on walls or moments when Senua moves quickly and the world goes out of focus and dark.

Hellblade, too, portrays mental illness as a hell or curse, and it does so through its audiovisual style. The descent into the Norse lore of Helheim, literally a hell, is shaped by Senua's mental illness: the monsters and area designs all appear as hallucinations. If it is not clear to players that her journey through hell is a manifestation of her psychosis instead of an actual quest, the game ends with Senua back in the "real" world having let go of her need to resurrect her lover. Additionally, while in Helheim, a black, throbbing scar appears on Senua's right arm that she

recognizes as the physical manifestation of her mental illness, what she and her tribe called the "darkness" or her "curse." And lastly, the voices Senua hears, when not helping her, often trick, taunt, and torment her in 3D binaural audio. Since the voices were recorded using 3D binaural technology, if players wear headphones while playing the game the voices appear to surround the players, and the effect may approach the uncanny.

Doki Doki Literature Club

As a visual novel game, *Doki Doki Literature Club* primarily relies on much dialogue, static art of characters, and occasional interactive choices—choose option A, B, or C—to continue its story. The game takes place in a high school setting with four anime girls in a literature club while players control a boy who is vying for their love. However, it is also a subversive take on the genre and uses its anime-based tropes to create a psychological horror experience. The game relies on two themes to convey its portrayal of mental illness, namely exploitive horror and limited agency, and these themes occur through the game's audiovisual style, control systems, and game goals.

Doki Doki Literature Club's audiovisual style portrays mental illness as horror, an old trope found in much of horror media including film and television. First, as a visual novel game, it uses common traits of the genre: juxtaposing the innocence/childishness of juvenile young women to the surreal evils that exist as a result of those characters' mental illnesses. The game's music and art style are energetic, bright, and typical of a high school dating sim game. When the cues for the characters' mental illnesses begin to emerge, those cues clash with the overly positive aesthetic of the game's genre. Second, the game portrays suicide and self-harm, behaviors commonly associated with mental illness, as jump scares. Players must navigate the main character to one girl's bedroom where, upon opening the door, the game suddenly shows a grotesque image of the girl hanging by the neck, apparently dead by suicide. Another jump scare occurs later in the game when a character suddenly pulls out a kitchen knife and stabs herself to death. Third, the game uses mental illness as a narrative justification for the horror that takes place: all of the horrific moments of the game take place because of characters' mental illness, thus suggesting that mental illness itself is a horror.

The game portrays mental illness as a form of limited agency through its control systems. Specifically, the game routinely stops allowing players to perform actions that they have hitherto been able to do. As a psychological horror game, the aesthetic drive is to create an experience akin to having a mental breakdown or a mental illness. The game's use of agency to induce horror therefore also exists as a way to portray mental illness. For instance, several moments in the game offer choices for which girl players want to interact with, and occasionally the game takes control of the mouse cursor so that players must make a specific selection. Later in the game, when a character has stabbed herself to death, players are left to stare at a corpse for two in-game days, disallowing players from making typical game choices and only allowing them to fast-forward through gibberish dialogue while the body remains in the center of the screen. Lastly, after one of the game character's AI takes control of the entire game, players cannot do anything: when they open the game, the same screen appears with a character chatting in a dream-like space. This scene will continue forever unless players go into the game's file directory on their computer and delete a particular file.

The theme of limited agency continues through the game's goals: the goal of a typical visual novel/dating sim is to win the love of one of the characters. However, *Doki Doki Literature Club* keeps players from this goal through the characters' mental illnesses.

Sayori is the protagonist's neighbor and one of the supposedly available dating options. The game slowly reveals that she has chronic depression through a variety of symptoms: overeating, overcompensating with positivity/optimism, difficulty getting out of bed, oversleeping, poor memory, and suicide. A romantic relationship is unable to progress with Sayori because the contradicting romantic feelings overwhelm her, thus exacerbating her symptoms. Yuri is another supposedly available option for romantic pursuit, but her mental illness leads her feelings for the protagonist to turn to obsession and suicide. Yuri engages in self-harm, a symptom of several mental illnesses, in the form of cutting. She uses long sleeves to hide her cutting scars, and she commits suicide with a large kitchen knife. She also demonstrates symptoms of extreme co-dependence when she admits to masturbating with a pen stolen from the protagonist.

While not an option for romantic pursuit, Monika—being self-aware of her position as a character in a video game—resents her status. She obsesses for not only the protagonist but also the player: the game uses the login name of the player's computer to speak directly to the player at the end of the game. As a supposedly sentient AI, she mind-rapes the other characters, exacerbating their mental illness symptoms that lead to their suicide. She traps the player in the game so that players can only interact with her. She gaslights the other characters in order to achieve her goals before ultimately deleting the other girls' game files. The game portrays her co-dependence and mental instability as a manifestation of evil.

Ultimately, the agency present in other visual novels disappears in the face of mental illness, and little to nothing changes—narratively speaking—through the course of the game.

Evaluation and Analysis

This section addresses the methods the games present to offer potentially beneficial approaches to portraying mental illness. *Edith Finch*'s primary benefit stems from empathizing with the experience of someone experiencing a mental illness—or at least the outward consequences of mental illness. The game focuses on portraying detachment, from reality as well as from meaningful relationships, in the story of Lewis Finch, and its audiovisual styles and control systems create a simulation of detachment: Lewis' fantasy takes over the screen and the two-handed controls keep one hand grounded in "reality" with the other in the "fantasy." Of particular interest here is how the control system operates not only as a metaphor but also as a way to invite players to physically engage with the bifurcation portrayed. Utilizing different hands to interact with different aspects of Lewis' story invites corporeal empathy (Anderson, 2016). Placing players in the empathetic position of experiencing a fictional character's mental illness, eschewing adventure or excitement, can make mental illness seem more relatable.

Edith Finch's portrayal of pathological gameplay as a method of coping with depression or substance abuse coincides with research on the subject. Li, Liau, and Khoo (2011) find that escapism is linked to pathological gaming as a means to avoid the discrepancy between the "actual" self and the "ideal" self, including players with depression. This study supports Yee's (2006) finding that gamers motivated by escapism were also more likely to be pathological

gamers. Hartmann and Vorderer (2009) find that violent gameplay disengages with typical moral systems found in everyday life, which suggests that playing games can be a form of moral escapism. In the game, Lewis Finch exhibits many symptoms of depression, such as losing interest in meaningful relationships and disengaging with reality, and his fantasy being game-focused suggests that the character used games as a form of escapism from both real life and his depressive symptoms. Schwartz (2006) describes how games' virtual geography, architecture, and general recreation of both realistic and fantastic locations creates a realm for escapism, a characteristic recreated in Lewis' ideation of a fantasy realm where he becomes the king. Reinecke (2009a) finds that players can use games as a method of recovering from the stress of everyday life. In particular, the study notes that people "with deficits in social support are forced to rely on other coping resources when facing work-related fatigue or daily hassles. In this case, video and computer games might serve as an alternative resource that facilitates recovery" (p. 131). Similarly, Reinecke (2009b) finds in another study that playing casual games at work helps workers recover from stress and strain. The game emphasizes the repetition and strain of Lewis' work by making players continually enter in the same control commands over and over, even during Lewis' game-based fantasy. The game systems *Edith Finch* uses to portray mental illness and related coping mechanisms based in gameplay aids in focusing on the relationship between pathological gameplay and mental illness.

Hellblade also aims for empathy by recreating symptoms in a virtual environment: experiencing symptoms of seeing and hearing, from the beautiful to the harrowing, opens empathetic opportunities to those who suffer from symptoms of psychosis, similar to how two depression-themed games helped players empathize with people with depression (Hoffman, 2017). But the game innovates even further by showcasing the complicated, often contradictory, nature of mental illness symptoms. The symptoms players vicariously experience both help and hinder, both offer beauty and repulsion. The game admittedly portrays the terrifying aspects of seeing and hearing hallucinations, but it also depicts the beauty in those symptoms, not only through occasionally pleasant visuals but also in how Senua's mental illness allows her to see patterns that advance the gameplay. Portraying a mental illness as both a gift and a struggle, including the contradictions inherent to that portrayal, is a step towards depicting mental illness more holistically.

People with mental illness undoubtedly face the negative consequences of social stigma related to their illness. Dinos et al. (2004) describe stigma that "defines people in terms of a distinguishing characteristic or mark and devalues them as a consequence" (p. 176). And, through a study of mental health patients, they report that stigma was a concern among people with mental illness, and those with anxiety, depression, and personality disorders were particularly affected. Schulze and Angermeyer (2003) find that people with schizophrenia face several negative consequences of stigma, such as structural discrimination, negative public images of mental illness, and limited access to social roles. However, just as *Hellblade* portrays through its gameplay, there are underreported and understudied positive aspects of mental illness. Galvez et al. (2011) find that the positive aspects of mental illness are much less studied than the negative symptoms and social stigmas. They also find that, at least in the case of bipolar disorder, there are several positive psychological traits associated with mental illness, such as spirituality, creativity, and resilience. And while the link between creativity and mental illness is not completely clear, there is some evidence to suggest that creativity could be a characteristic of

mental illness. Kyaga et al. (2013), for example, find that people with mental illness, particularly schizophrenia, are significantly more likely to be in creative occupations. *Hellblade* portrays mental illness as a difficulty and a challenge while also showcasing its potential for positive personality traits such as resilience, creativity, and problem solving.

Additionally, the reliance on professionals who study and treat mental illness, as well as interviews with those who suffer from symptoms of psychosis, offers a more steadyhanded approach to portraying a mental illness that so often is used as a narrative trope. The game makes an explicit attempt to communicate that the game designers relied on professional and personal feedback while also pointing players to online resources where they can learn more. And lastly, the portrayal of Senua as a hero capable of overcoming the many challenges her mental illness brings her way invites players to shed unethical preconceptions. Instead of depicting people who have mental illnesses as being less than human, the game emphasizes through its gameplay that Senua is a gifted, strong, and hard-working person who progresses in her ability to manage her mental illness symptoms.

Hellblade's focus on creating a gameplay experience born from working with people with psychosis suggests that the game acts as a form of peer support. Peer support, in the context of mental health care, describes how people with mental illness can benefit by working with other people with similar mental illnesses. It is a form of care that proliferated through the treatment of trauma victims, addiction recovery programs, and cancer patients. Davidson et al. (2006) describe peer support for mental illness patients as being "based on the belief that people who have faced, endured, and overcome adversity can offer useful support, encouragement, hope, and perhaps mentorship to others facing similar situations" (p. 443). Lloyd-Evans et al. (2012) find some evidence to suggest that peer support helps those with mental illness, but further study is required before policies implement peer support programs. Similarly, Davidson et al. (2012) describe how peer support, in the form of peer staff, can help mental health patients with hope, increased self-care, a sense of community, and decreased levels of depression and psychosis. Davidson et al. (2006) suggest the continued study of peer support as a form of care for mental illness patients, but they also do not deny the reported benefits found in controlled case studies. By continually emphasizing how the game took inspiration from the actual experiences of people with mental illness, from the opening title cards to the included documentary, the game foregrounds a form of interactive peer support – a way of playing through the experiences of other people with psychosis. This approach opens avenues through which mental health professionals can investigate the potential positive benefits of playing through interactive experiences based on the lives of peers with mental illness.

It is important to acknowledge that each game demonstrates weaknesses in their portrayals of mental illness, although these weaknesses do not devalue the games' more beneficial approaches. *Doki Doki Literature Club* may offer an accurate portrayal of depression in the character of Sayori, but it does so primarily through dialogue describing her symptoms. However, the scope of this project aims for interactive or gameplay-centric depictions, and thus the game does not offer any innovative or novel approaches to depicting mental illness in terms of its game mechanics or audiovisual design. The opposite is instead true: the game relies on old tropes of mental illness as a justification for the game's horror. The game limits player control at key moments to reinforce its psychological horror, it uses its audiovisual style to perform jump scares, and none of the choices players make ultimately allow characters to grow in their ability

to manage mental illness symptoms. On the contrary, the game portrays mental illness as a horror-filled experience that inevitably leads to suicide: three of the four young women characters commit suicide. Such a depiction is as old as mass media itself, and it presents no new game-centric method of conceiving of mental illness.

Other weaknesses in portraying mental illness include *Edith Finch*'s centralizing of Lewis' ineffectual attempt at recovery. Both the control systems and audiovisual style emphasizes his continuing detachment wherein he escapes his reality through an imaginary world of his creation. The fact that Lewis' story ends with his suicide only continues this trope. Lastly, *Hellblade* uses psychosis as a narrative crutch to depict an adventure, and thus it essentializes the experience of navigating symptoms of hearing and seeing hallucinations. Psychosis is an easy target for media producers given that its symptoms can be easily depicted visually, usually as a method of inducing thrills or horror into a narrative.

Conclusions and Implications

This project demonstrates how games provide several innovative approaches to portraying mental illness. Games' ability to invite players to empathize with characters, even to act in a virtual world as if they were these characters, opens avenues through which perceptions of mental illness can shift for the better (Hoffman, 2017). Following Stuart's (2006) call for media researchers to look beyond cataloguing the many ways mass media depict mental illness either incorrectly or harmfully, this study suggests researchers, game designers, players, and the public to look to games as one method through which portrayals of mental illness can—and are quite able to—improve. Instead of mental illness as a narrative justification for horror, it can be portrayed as a part of everyday life, as it is with one in five adults in the United States alone ("Mental Health By The Numbers"). Instead of being used as trope to explain villains' behaviors – and thus associate mental illness with violence and villains – mental illness can be shown as a challenge that can be faced, treated, and, in some cases, improved. Instead of misinformed—or even completely uninformed—portrayals of what it is like to experience symptoms of mental illness, game designers can follow the example of *Hellblade* and bring professionals and people with mental illnesses into the media creation process to inform how those depictions play out. Games can invoke a physical, interactive empathy for people with mental illness through control systems as seen in *Edith Finch*.

This study limits its scope to a few cursory games as a method of exploring these portrayals in an in-depth, design-focused, feed-forward manner. And thus the greatest limitation of the study's findings and analysis—and a suggestion for future research—is the need to include a much wider sample of games in order to identify how games portray mental illness before moving on to advocating for particular design features over others. I suggest following the format established by Williams et al. (2009) wherein they engage in a large-scale content analysis of video games with results weighted according to game sales. They are able to paint the most accurate picture of how particular identity markers, such as age, gender, and race, exist in the larger context of gaming culture. A comparable study could much more precisely describe the nature of video games' portrayal of mental illness.

Any depictions of other people's lived experiences will always be reductive and steeped in metaphor that exaggerates and essentializes. This is true for portraying people with mental illness

as well as any other identity trait. However, both entertainment and news media will continue to portray mental illness, and thus researchers must provide examples and best practices to guide those depictions toward the more innovative and potentially beneficial. These depictions matter; they inform public opinion (Wahl, 1995), and public opinion contributes to cultural practices that have the potential for great harm for those with mental illness (Stuart, 2006). In contrast, games can benefit those with mental illnesses as a non-pharmacological intervention, such as to help people with dementia (Cutler et al., 2016), military veterans (Banks & Cole, 2016), and people with traits associated with anxiety and depression (Griebel, 2006). And thus examining how media, including new digital media such as video games, can move beyond harmful tropes towards either neutral or positive portrayals proves to be a salient task for media scholars.

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