THESE GAMES ARE MADE FOR WALKIN': WALKING SIMS STEP UP & FILL IN

Walking Sims Step Up & Fill In

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Abstract

Slower-paced narrative, puzzle, and mystery-based games have long held a place in the videogame medium; but in recent years, a subset of these games (sometimes called *walking simulators)* has received increased attention. However, little of this discussion has addressed the potential these games may hold for learning. In this paper, we analyze a sample of walking sims, drawing from popular and research literature, as well as the public work of teachers using games in the classroom, to examine the common elements of walking sims and explore the unique affordances that this type of game may offer for learning.

Although many traditional videogames contain some semblance of a narrative arc, the gameplay–and not the story–is usually the main focus of the player attention. The dominance of popular mainstream (action, adventure, role-playing, and strategy) videogames has been profitable for large game developers, but has left gaps in the gaming landscape. As some players have noted, mainstream games tend to focus on "telling a few stories for the same people," (Ramanan, 2016) despite the fact that–like film, books, and other media–games have the potential to offer many different types of experiences that reflect the diverse backgrounds and address the various preferences of the people who play them. Such concerns about untapped potential extend to considerations of the ways that learning can happen in and around games; whether informally, through games designed for education, or through entertainment games integrated into the curriculum. These concerns are particularly salient when acknowledging that the goal of education is to prepare creative, innovative learners who can solve complex problems and think critically, and that learning happens best through active, situated, personally meaningful interactions (Greeno, Collins, & Resnick, 1996; Squire, 2006). Many now argue that increased attention should be focused on the *situated* nature of games, and that the field should embrace a more diverse view of learners, games, and learning contexts (Clark, Tanner-Smith, & Killingswort, 2016; Young et al., 2012).

Exploratory, narrative-driven videogames have served as a longstanding alternative to competitive, action-oriented titles. Many of these games tend to follow what has been called a "string of pearls" approach to interactive storytelling that creates "a finely crafted story, punctuated with periods of interactivity and challenge," (Schell, 2008, p. 265). With roots tracing back to the 1980s, the fact that many new games adopt this style has been gaining more attention over the past several years. Games that deviated from the string-of-pearls approach were pejoratively dubbed "walking simulators" (WS) on internet forums in the early 2000s—a term intended as an insult based on their lack of traditional

gaming conventions, but one that has since been embraced by its own community of players who value this departure from traditional structures. Often described as a sub-genre genre or pseudo-genre (Clark, 2017), walking sims deviate from well-worn tropes and push the boundaries of what is considered a (video) game.

What is a Walking Sim?

In his book on game design, veteran developer Jesse Schell (2008) takes issue with the claim that the lack of standardized definitions for games and their features is a crisis in the field while pointedly highlighting that this view tends to be held by those farthest removed from game development, people like academics. A lack of clean definition provides an unpleasant obstacle for academics keen to establish typologies, and so the debate rages on. There is no current consensus on the categorization of game features, nor the definition of a walking sim, or even a bounded definition of the word *game*. But Schell offers a hopeful take: At worst, he argues, this lack of clarity is merely an inconvenience; at best, it encourages us to continually clarify, analyze, and reconsider our ideas about games and how they work (Schell, 2008).

Therefore it is worth exploring the common traits of walking sims, how they converge and diverge from more traditional games, and the specific affordances they may offer for learning. WSs have already been acknowledged by critics and players alike for the opportunities they provide for artistic, narrative, ludic, and structural innovation. WSs are gaining popularity, appearing as a refreshing departure from traditional action-oriented and victory-seeking gaming conventions. As a direct consequence of that departure, walking sims have to reach into a new bag of tricks in order to engage players with games that are "often produced on a dime by indie studios [and] have to motivate a player using a non-standard set of tools," (Clark, 2017). In other words, rather than immediately engaging players with conflict and graphic action, WSs often embrace an exploratory, narrative approach designed to not only build and engage curiosity, but also challenge norms, elicit emotional responses, and embody the player in a novel setting or persona.

Despite some fuzziness about exactly what constitutes a "walking sim", it is possible to make some generalizations about the traits walking sims tend to exhibit in comparison to more traditional games (see Table 1).

Table 1

Traits of walking sims vs. traditional games

Element	Traditional Games	Walking Sims
Victory conditions / conquest	+	-
Narrative focus	sometimes	+
Affective reflection	rarely	+
Puzzles	+	sometimes
Metacognition	rarely	+
Failure / death	+	-
Time lock / urgency	+	-
Simulate walking (Clark, 2017)	+	+

For the purposes of this paper, we will define walking sims (WS) as a digital game embodying players in first person perspectives in order to explore virtual environments and discover new (or unexpected) features of that environment (and/or themselves).

Traditional games contain victory conditions, those conditions the player must meet in order to win. Games described as WSs tend to emphasize a singular game narrative (a strong storyline, dialogue, or even societal commentary/parody). Risk of failure is usually minimal, in that the playable character is rarely in immediate danger. WSs instead challenge the player in other ways–by confronting them with uncomfortable truths, prompting them to examine their own assumptions and biases, and upending their expectations based on traditional videogame conventions. Given their relatively slower pace and decreased emphasis on action and urgency, these games tend to forgo traditional combative interactions in lieu of affective reflection and metacognition.

Despite relatively smaller audiences and some vocal detractors, WSs are not confined solely to independent gaming communities and friends of developers. In fact, many have seen wide adoption and are available through mainstream download services such as the Playstation Store ® and Steam®. Several WSs have even earned critical commercial acclaim. To name a few: *Gone Home* won Best Debut Game and was nominated for Best Story at the 2013 British Academy Games Awards. *Firewatch* has been lauded for its artistic and narrative qualities, and was awarded Best 3D Visual Experience at the 2016 Unity Awards and Best Narrative at the 2017 Game Developers Choice Awards. *What Remains of Edith Finch* has been heralded for its narrative and innovative gameplay, named Best Game at the 2017 British Academy Games Awards and Best Narrative by the 2017 Game Awards.

Given WSs innovative, curiosity inducing and contemplative approach to gaming, what kinds of affordances and constraints might they offer for different kinds of learning (and different kinds of learners)?

Walking Sims and Learning

The fact that learning happens in and around games is, for most, not surprising: Games tend to be engaging experiences that spark interest in a variety of subjects and can serve as entry points to professional identities, whether they are intentionally designed to be educational or not (Squire, 2011).

The educational potential of WSs has already been recognized (and indeed, realized) by teachers, several of whom have written publicly about integrating several of these games into course curriculum. For example, Paul Davarsi wrote extensively about his use of *Gone Home* as a literary text in his high school English class (Davarsi, 2014). The game's suitability for learning was reinforced by a number of factors: from a content perspective, Davarsi notes that *Gone Home* offered opportunities to explore character development, environmental storytelling, non-linear narrative, and Aristotelian unities. More generally, incorporating a videogame into the curriculum (particularly one with adolescent characters and themes) can create the opportunity to engage students and enhance the relevance of lessons by fostering meaningful discussion based around a common experience. Davarsi points out several other practical affordances of *Gone Home* (which apply to other games in the genre) that are of key importance to our discussion of WSs: *Gone Home* is an indie game, and thus is relatively inexpensive (to make and to buy), less lengthy in terms of playtime, and not as processor-intensive as many popular commercial titles. These affordances make such games accessible to learners regardless of their experience level with similar games or gaming in general. WS's tend to be affordable and easier to support on a budget, thus lowering the barrier to entry for educators interested in incorporating videogames as part of an instructional strategy.

Adopting a similar strategy, educator Brian Dalton published a number of teaching guides that create context for using WSs as a learning tool in the classroom. His lesson plans and activities draw from his own experiences using the game *Firewatch* to explore literary elements such as exposition, foreshadowing, and characterization, and to teach strategies like annotation and compare/contrast (Dalton, 2016a). Dalton also shared guides on the use of another WS, *The Vanishing of Ethan Carter,* that focus on the game's applications for English Language Arts, evaluating digital media, and psychology and integrate game play with a number of other instructional activities such as graphic organizers, video creation, and class discussion, (Dalton, 2016b).

Walking the Line: Unique Affordances of Walking Sims

By deemphasizing conflict, the immersive, atmospheric game worlds of WSs create space for reflection and exploration. This shift can put additional burden on the narrative to engage players and hold their attention during the length of the game; this narrative focus of WSs also affords pedagogical potential. Stories, within games and elsewhere, can provide a "metaphoric loft" (Bruner, 2002). In other words, the specific content of a particular story (e.g., its dramatic arc, characters, and setting) often have the power to resonate and connect with a variety of individuals and experiences. Many WSs use story to embed the player in a complicated *mystery* that encourages them to examine not only its underlying meaning, but also the implications of their actions and any emotions the experience may elicit. Doing so can potentially *challenge players to evaluate their own biases and assumptions*. Through well-designed experiential, embodied play, research suggests that the narratives in games can actually do pedagogical work (Barab et al., 2013).

Videogames can also support learning by giving players the opportunity to try on new, *embodied* identities. As Gee (2005) notes, sometimes players become heavily invested in inhabiting a character because that character is particularly intriguing or relatable; other times, players enjoy taking on a relatively blank character for whom they can create a complex life story. In either case, by adopting a new identity in the game, the player can engage in the different activities and ways of knowing associated with that identity (p. 50). Because WSs are designed to offer different types of agency and challenge than traditional games, they can inspire players "to think about the characters, to relate to them on a human level rather than as agents of action," (Stuart, 2016). In WSs, the characters players inhabit are often in the process of *dealing with or healing from past trauma*, often contributing to an emotional experience that encourages the player to empathize with their avatar or even view themselves in a new light. For an overview of elements common among WSs, see Table 2 below.

Table 2

Walking Sim Elements

Theme	Description
Challenging player expectations, prejudices, and perspectives	Complicates player choice and agency to explore biases, moral challenges, or assumptions.
Challenging the boundaries of narrative gaming	Presents an interactive experience that does not necessarily conform to western dramatic narrative forms.
Embodiment and Agency	Embodiment is an empathic link between the player and their avatar that allows the player to feel as if they are inhabiting different entities (with different capabilities and associated controls). *Agency*, a subset of embodiment is the players' ability to use the embodied avatar to effect the game environment.
Environmental storytelling	In addition to text or narration, the design of the game environment or artifacts reinforce and add to the narrative (e.g., a lost letter, a secret panel, the remains of a meal).
Problem solving	The player must think their way past a tangible or conceptual obstacle (rather than shoot, jump or run).
Complicating the narrator	The game can give lie to the veracity of what the game narrator reports.
Exploration	The game encourages the player to make meaning from the game environment by granting access to new areas or in the form of backstory revelations.
Dealing and healing (re: the past), often family related	The game examines past loss or tragedy, encourages empathy, and may elicit an emotional response.
Finding meaning in mystery	Unlike traditional games and narratives, the game is more likely to explore the nuances of a meaningful question than give a concrete answer.

Walk This Way: The Walking Sim Experience

This analysis illustrates the aforementioned common elements of WSs, drawing from some of the most popular titles to date that have been tagged or designated as such: *Firewatch, Gone Home, The Long Dark, The Stanley Parable* and *What Remains of Edith Finch*. Though these games vary widely in content, between them they share a number of common elements that tie them to the WS genre.

Firewatch

Developed by Campo Santo and published by Campo Santo and Panic in February of 2016, Firewatch places the player into the persona of Henry, circa 1989, a conflicted young widower recently appointed fire lookout ranger (backstory comprises a significant portion of the opening gameplay).

Henry learns the ropes of his new gig, grows to trust the disembodied voice of fellow ranger, Delilah, over his walkie-talkie, and realizes that not everything in the Wyoming wilderness is as peaceful as it seems.

What it is. The story of *Firewatch* is one that gradually unfolds through dialogue, character development, and atmosphere. It is also a story that complicates the idea of healing and dealing with the past as protagonist Henry tries to take a break from the complexities of adulthood and the deteriorating health of his wife Julia. In his attempt to 'escape' to an initially idyllic forested environment, he finds opportunities for both loneliness and connection; for both beauty and danger.

There is some limited 'help' from the game in terms of learning how to interact with the game environment and how to use controls, but in large part the player learns a great deal on their own and is left to explore and/or follow a more linear, game-directed path. Time passes from day to day, and a relationship develops with Delilah over the walkie-talkie. Alongside this developing relationship and the gradual unravelling of Henry's backstory, a mystery within the park begins to unfold. Clues can be found to illuminate the narrative via environmental storytelling, exploration, and dialogue. The narrator is present, but somewhat bifurcated; initially embedded in the form of text in the introduction and later replaced by the conversing voices of Henry and Delilah.

One of the most notable features of *Firewatch* is the way it plays with the notion of urgency and time. As is the case in most WSs, the main character can't die in *Firewatch*–and in terms of completing objectives, the pace of the game is determined by the player and unconstrained by time limits. However, the one element of the game that does emphasize time and quick decision-making is the walkie-talkie mechanic: Often, when Delilah asks Henry a question, the player has a limited amount of time to choose dialogue options. The game employs unique controls for using the walkie-talkie (holding down the Shift key, then scrolling to the desired dialogue choice, then releasing the Shift key). The physical, *embodied* action of using the walkie-talkie to communicate, combined with a visible timer, subtly calls the player's attention to the conversation (as shown in Figure 1).

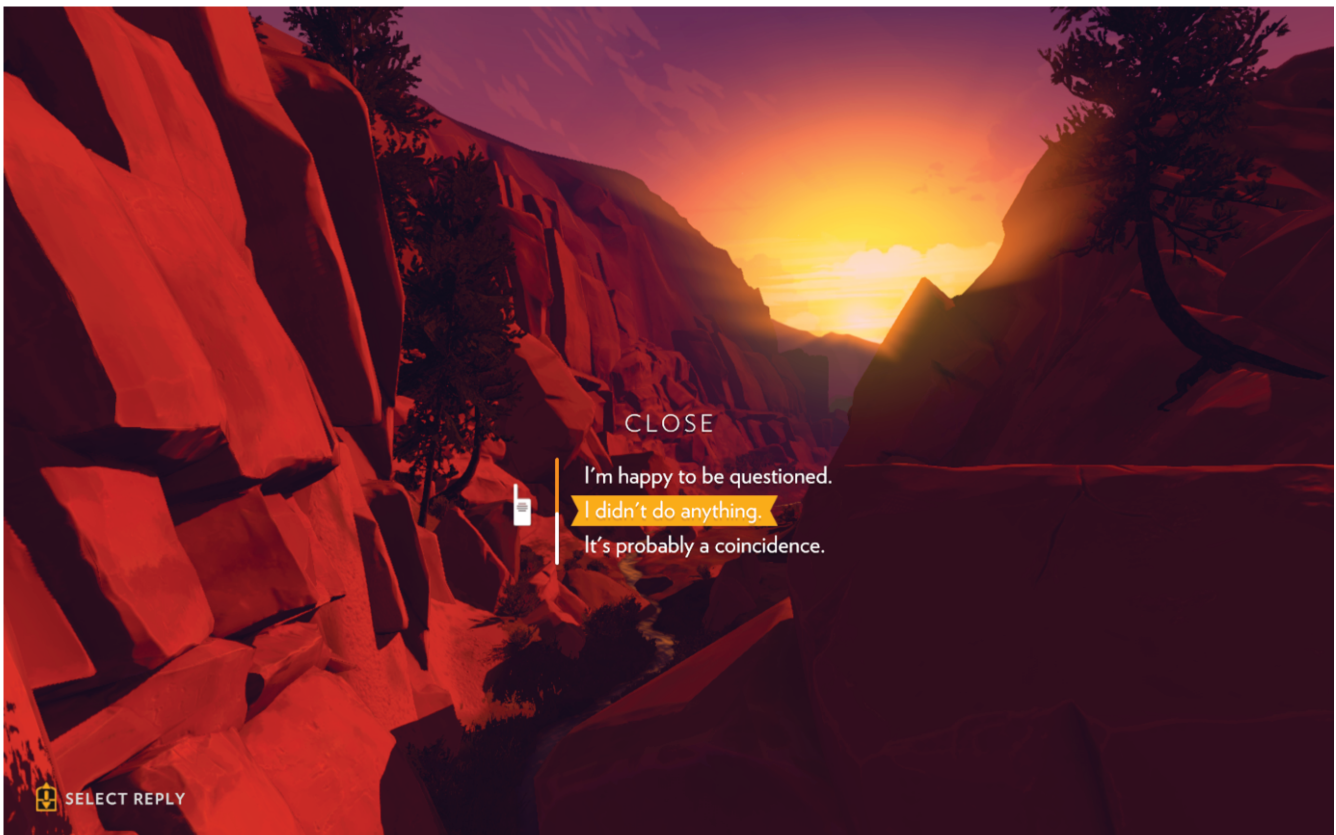

Figure 1: Dialogue choices in Firewatch

What it isn't. Admittedly an indie effort, the game is not particularly robust, often suggesting areas to explore only to disappoint with an empty corner. It is not a traditional survival adventure, nor is it fast-paced. Although the introduction has a slight 'choose your own adventure' feel, the rest of the game does not entirely follow suit. *Firewatch* falls outside the realm of traditional games by making it clear that your choices as a player are limited. Choices are limited in any game, certainly–but that is something that tends to be invisible to the player. This game is more explicit about how it is limiting you.

Why the difference matters. *Firewatch* is not a game that makes its intentions clear; it can be frustrating at times, and is transparent about the limited choices given to the player. But while "one player may get annoyed by the lack of agency in *Firewatch,* another may delight in the desperation in the illusion of choice," (Clark 2017). The choices made in the game may all lead to the same final outcome, but the way one plays can ultimately shape the experience of the game; as one reviewer notes, ignoring Delilah entirely can be a heart wrenching experience that reminds us of missed opportunities for even fleeting human connection when we need it most (Rankin, 2016). Others suggest that the games's apparent limitations encourage the player to confront traditional conceptions of masculinity (Kagen, 2017). In other words, different choices may not lead to a change in the outcome of the game–but they *can* have a different affective impact on the player.

These kinds of transformative experiences are possible in well-designed games that contain themes that resonate deeply and become important to the player (Schell, 2008, p. 53). For some players, *Firewatch* is that type of game–inspiring them, for example, to reflect and write about their own loneliness (e.g., Meitzler, 2016). In this respect, *Firewatch* is a WS that pushes back against the standard

pace of traditional action games, providing a space for players to relate to its characters, make connections with their own lives, and interpret meaning (Stuart, 2014).

Gone Home

Published by The Fullbright Company in 2013, *Gone Home* is set in the year 1995 and embraces 90s nostalgia–complete with mix tapes and pop culture references to *Twin Peaks*, riot grrls, zines, and *The X-Files*. The player takes on the role of college student Katie Greenbriar exploring her family's sprawling, empty home in rural Oregon after returning from adventures abroad. The player explores the house and reveals exposition through the discovery of household objects that fill in the backstory.

What it is. In the legacy of *Myst* (minus the puzzles), *Gone Home* is an exploratory narrative game in which curiosity is prompted and rewarded as the player pieces together the events that led to this moment in time. The game is a first person walking sim as well as a bit of a mystery on a dark-and-stormy night. From luggage tags to discarded invoices, play involves delightfully interwoven clues that can be confirmed from multiple sources within the game environment. Ultimately a revelation of family issues, this game is a well told story that puts the player in the driver's seat.

Gone Home challenges player conventions at the level of most WSs; there is no combat, fail or win states, though the game can be completed once the primary narrative arc comes to a close. Embodied as Katie Greenbriar, the player is able to interact with the game environment and manipulate objects and artifacts within it to reveal them (and the clues they hold) in full detail. *Gone Home*'s environmental storytelling, focus on exploration, attention to traditionally underrepresented identities, and player-determined pace contribute to its exemplary status as a WS. There is some limited problem solving in the form of secret doors and locating key pieces of plot-propelling props. The game relies almost exclusively on exploration to drive the story and catalyze revelations of family history, trauma and well-kept secrets. Since the game can be completed without resolving all of its many mysteries, players of a completionist mindset may be enticed the player to replay the game more than once.

Figure 2: Problem solving is wrapped in plastic nostalgia in Gone Home

What it isn't. *Gone Home* is not a linear story, nor is it an interactive or social experience. There are precious few action verbs involved (no running, shooting, stabbing or ducking); mostly looking, listening and considering. There are no traditional victory conditions unless the unraveling of the mystery of 'What happened to the Greenbriar family?" can be considered as such. Although the game firmly embodies the player into a specific character (Katie), that character's perspective is not really at the heart of the story. In terms of representation, though, the game falls in line with a common criticism of WSs: The characters, family photos, and 90s pop-culture icons visually represented on screen tend to be limited to able-bodied, middle- to upper-class white folks (see Figure 2).

Why the difference matters. *Gone Home* has received attention for the sensitive way in which its narrative addresses issues of identity. However, Sam Greenbriar—the character actually grappling with the challenges of coming out to her family—is a non-playable character (NPC) who only appears in family photos and speaks only through letters to her sister. As such, the game renders Sam invisible and distances the player from any direct experience of her character; thus, the mystery of the game (like many in the genre) relies upon this "queer absence" (Mejeur, 2018). From a learning perspective, this may afford opportunities to identify and discuss the ways that media, and society more generally, often silences marginalized individuals.

The game also has the educational potential for teaching the player useful critical thinking and information consumption skills. The variety and conflicting accounts of events encountered in the game challenges the players to determine credible sources and to draw their own conclusions from the information provided–in much the same we must learn to do to become critical consumers of media by triangulating data points to arrive at a defensible conclusion supported by credible sources.

The Long Dark

Developed and published by Hinterland Studio and released in 2013, *The Long Dark* thrusts players into the role of bush pilot William Mackenzie, stranded in the frigid Canadian wilderness after a plane crash caused by a geomagnetic event. Players must unravel the nature and extent of this catastrophe while exercising extreme resource management in order to escape death's dogged and icy embrace.

What it is. Although it is often categorized as a WS, *The Long Dark* feels more like a survival / adventure game–and thus, emphasizes how inconsistently the WS designator tends to be applied. This episodic game can be played in different modes–Wintermute (story mode), Survival (a free form open world in which you must stay alive as long as you can), and Challenge mode (mission-driven survival). The game includes definite elements of danger and urgency; has clearly defined, immediate goals; and includes more traditional game play elements compared to most WSs. *The Long Dark* does, however, subvert expectations in the vein of other WSs: As one reviewer has written, in survival mode the game has "no 'win' state other than how long can you survive in an open sandbox that is out to kill you," (Clauson, 2014). With a dark narrative that pushes the player to make morally challenging choices, the initial two episodes take approximately 10 hours to complete.

The Long Dark uses more traditional game mechanics than one might expect in a WS. For example, unlike most WSs, it contains a command wheel that offers the player a character status screen, inventory, and access to skills. Character death is not only a possibility, but a likelihood. That being said, exploration and problem solving are essential survival tools–and despite the game's stark opening warning that the survival strategies it offers are not meant to be taken seriously, in-game choices do lead to surprisingly realistic and complex outcomes (for example, developing dysentery from unfiltered water teaches players that they must boil water before drinking it). The game also provides a sense of embodiment in many of the actions the player must perform (e.g., in the opening of the game one of the first views for the player is of their character's hand as he struggles to raise himself from the wreckage). As the player progresses throughout the initial episodes of *The Long Dark*, they find meaning in mystery by unravelling the roots of the apocalypse in which they find themself and exploring the ethical implications of the choices they make in the game world–whether to choose cooperation and sacrifice, or to survive at any cost.

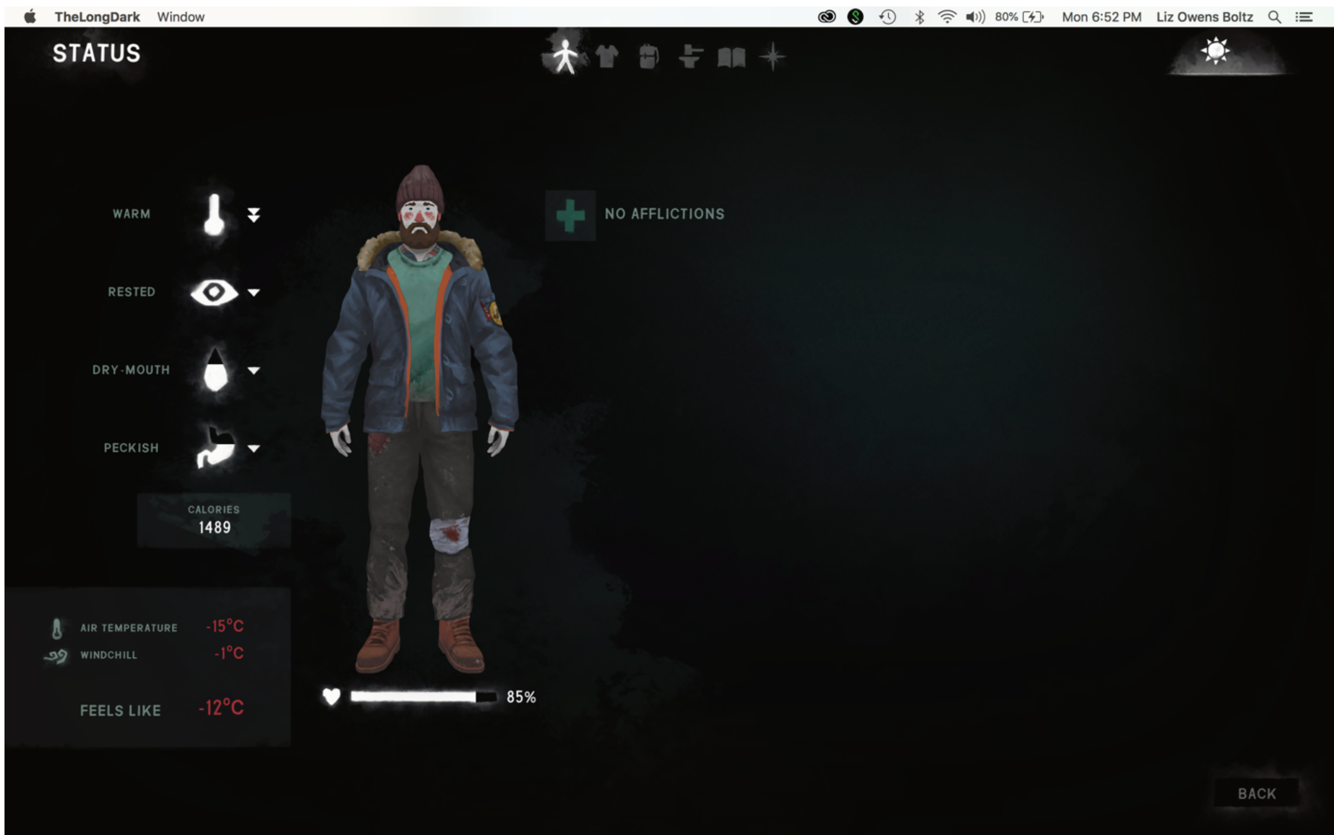

Figure 3: Character status screen in The Long Dark

What it isn't. *The Long Dark* may not technically qualify as a WS, at least not by the strictest definition. The fact that one's character can die, along with the traditional game play elements, differentiate this game from other WSs: Whereas the unknown is the source of mystery in most WSs, here it can actually kill you. But it's also far from a traditional AAA videogame. Developed by a team in Canada, the game reflects a strong national identity–aligned with cultural themes of isolation, a connection to nature, and a battle between rugged, untouched beauty and encroaching development. Indeed, the Canadian wilderness plays such a strong role in the game, it might even be considered a character. Environmental clues in *The Long Dark* (like coming darkness and changes in the sound of the wind) aren't just about unfolding a narrative; paying attention to those clues is key to your character's survival. However, the game does challenge the boundaries of gaming by hybridizing the survival and WS genres and by employing a number of common WS elements.

Why the difference matters. The fact that this game has been identified as a walking sim is in itself interesting, and may help with the formation of broad (and more narrow) definitions of the genre–or perhaps even sub-classes within the genre. As a player, you tend to approach a game differently when there is a sense of urgency or imminent threat, and when clear, immediate goals are given to you. Because the game affords players a bit more agency than many other WSs, *The Long Dark* may offer what Barab et al. (2013) call *narrative transactivity*–that is, a scaffolded space in which players can explore ideological dilemmas experientially, and examine the moral implications of their decisions. This type of game space can also allow players to "embody and practice the skills, knowledge, and thinking processes related to ethics…Participants can traverse and transgress boundaries of propriety, try on new identities and investigate diverse perspectives," (Schrier & Kinzer, 2009, p. 259).

Additionally, *The Long Dark* allows players to experience a perspective not often represented in the U.S.-dominated videogame market. Despite its (relatively) more urgent pace, playing the game is still an introspective and quiet experience that invites players to explore dark and complex themes framed by Canadian cultural motifs. As one author noted, it "isn't just about being outdoors; it is about being on the outside, a common theme in Canadian fiction," (Campbell, 2014). This facet of the game suggests that it, and other similar efforts, offer opportunities to expose players to unfamiliar cultural identities and broaden their understandings of diverse global perspectives.

The Stanley Parable

An experiment in interactive fiction that calls to mind the work of Douglas Adams, the movie *Brazil* (1985), and the tabletop RPG *Paranoia*, The Stanley Parable (originally a 2011 *Half-Life* mod) was formally released as a PC game in 2013. Players pilot Stanley, office nebbish, as he repeatedly fails to escape his cube farm prison with the inaccurate guidance of a snarky narrator. Despite the appearance of a high choice environment, players ultimately return to the starting point in this absurdist adventure.

What it is. *The Stanley Parable* is a dystopian, "work limbo" walking sim reminiscent of the narrative stylings of *Portal 2*. It is an exploration game with a gregarious, yet unreliable, narrator. It includes a series of choose-your-own-adventure style branching narratives each promising success and each, in turn, sending you back to the beginning of the game. Form fits function as the game is about an inescapable and illogical bureaucracy in which the player finds themselves trapped in an environment that preaches free will but offers little-to-none. In some ways this game allows the player to measure their tendency for blind obedience to authority against their impulse to go rogue. Neither stratagem can be dubbed *successful*, but it is a tool for self-reflection.

The Stanley Parable leans heavily on environmental storytelling, often repeating visual motifs to accentuate the bureaucratic dystopia and exploration, however, unlike most WS that reward exploration with revelation, this game offers small comfort before punishing the player for exploring by sending them back to the beginning of the game; a significant penalty. The game further shatters the fourth wall by bringing the players *backstage* to a room where the props for their journey are housed (See figure 4). Perhaps the most characteristic aspect of *The Stanley Parable* is the way it not only challenges standard gaming conventions, but outright turns them upside down. The narrator is demonstrably and grossly unreliable in a way that quickly becomes clear to the player; this comes as small comfort during play as the undesirable consequences of choices are unclear before it is too late to avoid them. This upending of player expectations is, itself, one of the innovations of WSs, and *The Stanley Parable* is an exemplar of such an approach.

Figure 4: A meta-visual moment in The Stanley Parable during which the player encounters scale models of the game environment

What it isn't. This game is neither a linear narrative, nor a game with clear goals or victory conditions, but instead, it is more of a *thing* to be experienced. As such, the main hallmarks of *The Stanley Parable* include subverting player expectations (for some players, to the point of annoyance) and challenging standard narrative and gaming conventions. This falls in line with Dan Pinchbeck's description of WSs: "It doesn't matter if you understand it or it doesn't matter if you 'get' it. It's not a problem to be solved, it's just a thing to be in for a while," (Campbell, 2016). The game begins with a large dose of snarkish charm, and follows a point-and-click approach. Moving the character along chosen paths often leads back to the beginning.

Why the difference matters. The potential for games like *The Stanley Parable* is in their ability to manifest the intangible idea of critically questioning authority, media and a supposedly trusted voice. In the right context this kind of game, in which the player can be "punished for doing things that classic games encourage," (Clark, 2017), could be used to show younger players that just because someone claims to be in charge and tells you what to do does not mean that they are competent correct or have your best interests at heart. This challenging of conventional behaviors can be a powerful tool for understanding and empathy.

What Remains of Edith Finch

In this Giant Sparrow (2017) release for PC PS4 and Xbox One, the player begins as 17-year-old Edith, a young woman returning to her family's ancestral Washington state home. Throughout the narrative, the player takes on a number of different identities while exploring rooms, passageways, pathways and secret spaces (strewn with revealing artifacts) in an attempt to understand the legacy of a family curse spanning five generations of Finches.

What it Is. *What Remains of Edith Finch* is an interactive mystery narrative replete with environmental

storytelling. The player uncovers the mystery surrounding her family by exploring the empty Finch home, and the painful memories contained within each of its rooms. The game's "narration" occurs through haunting text that appears ex nihilo as the player moves through the game world, chronicling a first-person account that spans perspectives. The game is also an embodied experience that allows the player to enact a series of tragic mini-narratives that involve different ways of being, and different ways of physically enacting each piece of the story. From being a young boy pumping his legs to swing higher and higher into the air, to learning to fly as an owl, pounce as a cat, and slither as a sea monster, the unexpected qualities of each embodied experience push the player to a sense of childlike (but uneasy) wonder–and moves, eventually, to inexorable loss.

This game involves confronting the past and dealing with painful memories, and often doing so through an uncomfortable juxtaposition: as a toddler, imagining his bath toys coming to life and swimming with them deeper and deeper into the water, the player is reminded that the playful, uninhibited outlook of a child comes with the price of dangerous, even fatal, ignorance. As one might imagine, experiencing a series of tragic vignettes tends to provoke an emotional response in players, with the potential to connect to their own memories and fears.

Edith Finch also deviates from standard storytelling with surprising twists in the way it presents some of its stories. In the game's primary first-person perspective, the player navigates through a semi-standard virtual environment; but the game also subverts this norm by, for example, thrusting the player into the pages of a comic book, jumping from to frame to frame as the pages turn and the story moves forward. Such changes call the player's attention to the way that the story is being presented–and often reveal something about the character whose story is being explored. Similar subversions are accomplished through clever mechanics. While inhabiting the character of Lewis, Edith's brother, one must sludge through his monotonous work at the canning factory while simultaneously navigating through an imaginative inner fantasy world. It's a juxtaposition that gives pause; there's a tension as one struggles to safely navigate through both spaces, especially when one becomes much more compelling than the other.

Figure 5: Swimming with bath toys in What Remains of Edith Finch

What it Isn't. Since, in many ways, *Edith Finch* tends to subvert expectations, it's worth noting that it follows the same empty house "formula" as several other WSs (like *Gone Home*). Like many WSs, some players argue that it isn't truly a game, but rather an interactive fiction. Gameplay changes swiftly, continually surprising and keeping the player on their toes. Although it certainly isn't a traditional action game of any sort, the player is nearly always *doing* something–finding clues, unlocking narration, learning to play as a new entity (both in terms of figuring out each entity's capabilities and goals and how to use the game controls to achieve them).

Why the difference matters. Few, if any, of the other WSs explored thus far have taken the idea of embodiment to the level of *Edith Finch*. Although embodying characters using a dualshock controller doesn't offer the same level of immersion as virtual reality, but the controls and movements still manage to capture the unique and unusual experiences of becoming different characters. Something as outwardly simple as the height/perspective difference between being a young woman and a little girl has a surprisingly dramatic impact upon the player. As one reviewer noted, the game allows players "to experience something as an adult the way you used to experience books as a child — to see them open up in your head. To inhabit them the way you would another world," (Sheehan, 2017). On the one hand, it's an experience that only the videogaming medium seems capable of crafting successfully. On the other hand, and as the ending credits emphasize, it's a story; or more to the point, it's a story "about stories" (Diver, 2017). *Edith Finch* thus offers affordances in line with what several scholars have described as the possibility spaces within games; that is, the way that more open play can allow players/learners to imagine what might be possible (Flanagan, 2010; Squire, 2006).

Walk On: Discussion

When we conceptualize learning with games as *endogenous* (Reiber, 1996) or coming from within the game itself — it becomes inextricably embedded within its context. This perspective, with roots in the

situative and sociocultural traditions, holds that learners play an active role in constructing meaning through inquiry, experimentation, and discovery. Knowledge is a tool set for solving authentic problems, and learning is an experience linked with identity. In short, learning through games involves "a set of well-designed experiences that elicit identities and encourage learners to confront existing beliefs, perform skills in context, and reflect on their understandings," (Squire, 2006, p. 24).

Walking sims often encourage players to learn in these same modes. By embodying players in novel characters and/or settings, confronting biases, and challenging norms, they can encourage the player explore the nuances of complex issues and consider differing perspectives when a problem presents itself. Players encounter moral and ethical dilemmas that don't have simple solutions; they are issues to be pondered, explored and experimented with to create an experience that is context- and player-dependent. WSs encourage players to explore more than just the game environment–and to push through to the exploration of ideas and feelings. By grappling with the ineffable, players may engage in their own *dealing and healing*, find meaning in an engaging mystery, and explore powerful stories that offer applications for literature and creative writing (Dalton, 2016a; Dalton, 2016b; Davarsi, 2014). In other words, WSs can leverage the kinds of emergent play that manifest when players bring their own goals, identities, and emotions into the game.

The slower pace of WS's is a feature that works to build and engage player curiosity, challenge norms, elicit emotional responses and embody the player in a novel setting and resonant persona. A WS can gradually build the players' relationship investment with game content so that when change or revelation finally takes place, it has a deeper impact. Players may therefore experience the meaning of key events, ideas, and relationships more directly and deeply than they would in games that give such content passing treatment or allow the player to rush through it. As such, WSs may afford more opportunities to expose players to themes that might not resonate as effectively in fast-paced play; indeed, exploration is encouraged alongside a strong message that there is meaning in the mystery and that the journey is the destination. In a WS, a player can wander but still be as "on task", taking a deeper dive into the narrative intentionally constructed by game developers while simultaneously reflecting on the emergent experience in a more personal way.

By abandoning the standard western dramatic narrative structure related to pacing and time, the WS experience can be arranged thematically (instead of around plot and/or character arc). It can simply be a series of environmental events that challenge the player to reflect on assumptions, stereotypes, predispositions or world views. Since these games do not necessarily need to build to a climactic conflict (e.g, with a hero confronting the villain atop a windswept skyscraper), they can instead delve deeply into nuanced topics or explore an event or location with greater freedom.

Obstacles in WSs differ from the environment- or competition-centered variety and foster habits of mind rather than manipulation of playable characters or the environment. While some traditional games do offer dialog choices that unlock game options, these tend to be brief and isolated incidents tied to a character skill (charisma, bartering, diplomacy etc.) rather than the player's own perspective and lived experiences. From a learning perspective, this aligns more closely with a holistic consideration of the players cognitive, affective and behavioral development than a grade-based assessment mentality.

Several of the common elements found in WSs–in particular, challenging player prejudices and

perspectives, embodiment, and dealing and healing with the past–appear to offer affordances for empathy. If we consider embodiment as the emphatic link between the player and and avatar, this is in keeping with Gee's (2003) assertion that the interface between a virtual character and one's real-life identity (what he calls a *projective identity*) allows a player to entertain new perspectives, examine different value systems, and inspires an emotional investment. Well-designed games that recruit both the cognitive and affective dimensions of empathy have been recognized by educators as useful not only for empathy as an end in itself, but also as entry points for the discussion and examination of ethics, history, politics, and social studies (Boltz, 2017; Boltz, Henriksen, & Mishra, 2015).

Perhaps to the chagrin of those who would act as the gatekeepers of the gaming world, WSs also open games up to broader audiences. WSs can appeal to potential players who are not motivated by competition and action (or in fact are discouraged or alienated by it). For these potential players, WSs may serve as a space to explore and play at their own pace. Importantly, however, many players can't be pinned down to an oversimplified "type" of gamer, and simply look for different kinds of games at different times. WSs therefore offer space for all players to engage in particular forms of play and add variety to the gaming landscape.

Currently, WSs also share a range of limitations. Although they do tend to demonstrate greater sensitivity in addressing some social issues (e.g., identity and mental health) in comparison to other genres, most WSs are still extremely lacking in terms of the diversity of their playable characters and the limited, indirect, and problematic way the lived experiences of marginalized individuals are represented (Mejeur, 2018). As educators, we advocate for a continued evolution of the medium in hopes that future games will more fully represent the diverse lived experiences of potential players. WSs, like all videogames, must strive for more inclusivity, especially with regard to individuals from minoritized groups who have historically been underrepresented, oversimplified, and tokenized in popular media. In the meantime, these limitations may be used as opportunities for learners to identify, reflect upon, and discuss these problematic issues. Educators might also design revision activities to accompany game play that encourage students to imagine ways they might remix, rewrite, and redesign more inclusive WSs (e.g., via paper prototyping, Twine, etc., depending on age, available resources, and ability level).

Although their potential should not be overstated, WSs do appear to offer educative affordances in alignment with our current understandings of how learning happens—at least, given thoughtful design, attention to issues of representation, and integration within a carefully crafted learning experience that encourages reflection and connects game content with relevant themes and topics. More broadly, the walking sims of today may offer glimpses of and insights for the games of the future. As one writer notes, "Perhaps more than any other genre, the walking sim is preparing us for a future of synthetic worlds," (Stuart, 2016). As gaming continues to evolve technically with the adoption of virtual and alternate reality game mediums, WSs may continue to see increased adoption sponsored by broader audiences, novel interface and the ability to more fully experience a problem, issue or concept from the compelling, embodied perspective of another.

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