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July 3, 2019

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Abstract

This paper collects a series of heuristics in game level design to articulate the relationship between designed experience, perceived experience, and the mechanics of play. This work aims simply to illuminate core concepts as a guide for framing the relationship between designer/author and player/participant. It is offered simply as a philosophical lens for perceiving and designing the dynamic between created works and their perception by players. It does so by offering the concept of nested narratives - recursively experienced between the played narrative and the designed narrative. It is an adaptation of Derrida's Hauntology, applied to the context of narratives in game design, at the scale and pace of 21st century game design. In short, games are always haunted by the ghosts of the author's designed narrative, it's manifestation in player's actions, and the player's self-authored explanation of their experience. This view can be used to design experiential, multi-narrative focused games and plays on the notion of games as penumbra. They are the penumbra which lay like ghosts in each new design.

Keywords

Digital Narrative, Recursion, Level Design, Hauntology, Critical Design

Introduction

Understanding digital narrative has typically been framed in relation to earlier media. While books, film and other linear forms offer some analogy, it's also clearly articulated by many in digital narrative studies that being digital offers much more possibility [1]. It is from the narrative and philosophical foundation of interactive narrative, whether the long history of theater [2] or the champion of more recent technology focus [3]. Meta-perspectives, such as Koenitz's theoretical framework [4] bring into view a contemporary perspective that looks at the intersection of vectors and offers foundation for design and implementation. Likewise, scholars, like Jenkins have made observations about the uniqueness of games and ludology to explain the richness of digital interactive narratives [5]. However, it could be equally useful to add to this milieu, another perspective. It may be useful to analyze and design from perspectives informed by aesthetics, computation and philosophy.

Reference and allusion to work sometimes takes a generation or two to manifest. The Futurists' concept of simultaneity, for example, reveal themselves nearly 50 years

later in the writing of authors like Kurt Vonnegut. In *Slaughterhouse Five* for example, Vonnegut uses the device of a science fiction – becoming unstuck in time – to play with the notions of simultaneity [6]. Simultaneity is a concept, futurist artists employed to provide a sense that logical spatial relations had been superseded [6]. Like Vonnegut's characters, who see a person's entire life like a stretch of mountains, from baby legs to geriatric legs, the work of visual simultaneity is a collage of moments in time viewed at once. Today, the core computational method for such work is iteration and self-reference, the simplest elements of the programming convention of recursion.

Recursion, the repeated application of a self-referential procedure, is important to another 20th century literary work, Derrida's *Specters of Marx* [7]. This post-mortem analysis of Marxism's effects on society became one of the philosopher's most-referenced works. At its core is the concept of hauntology [8]. In simplified terms hauntology is the notion that each work references a past work and is subject to its reference in the present and past. In short, a work that is written today is both referential to prior work and guided by it. The work is in colloquial terms, haunted by the work prior to it. This haunting not only shapes the author's decisions, but the ways in which it is read. The work started a trend in both critical work and psychoanalytical research [8].

As recent as 2012, Fisher examined the hauntology of music, shining a light on the tension of electronic music's present on its projected future [9]. From this work the argument is made that 21st century music is haunted not by its past, but by the projected future the 20th century had primed its audience to expect. Fisher writes "what haunts the digital cul-de-sacs of the twenty-first century is not so much the past as all the lost futures that the twentieth century taught us to anticipate." The result, in Fisher's view, is "the acceptance of a situation in which culture would continue without really changing." While Fisher's work primarily focuses on music, it's worthwhile to ask – what if the same ghosts are beginning to appear in the world of designing playful experiences.

Much of the work in digital narrative ignores visual and philosophical hauntology. Yet, similar to Fisher's critique of 21st century music, 21st playful experiences struggle against the weight of a future-optimistic promises of the prior century. But, unlike 21st music, they are also haunted by the scale and effect of past experiences. They are like Janet Murray's well regarded book on digital storytelling

– Hamlet on the Holodeck[1]. That is, contemporary playful experiences are caught between the grand dream of the imagined future (i.e. the Star Trek Holodeck) and the monumental cultural presence of work by greats like Shakespeare (e.g. Hamlet). They are even, perhaps, possessed by them as aspiration and benchmark.

This paper explores, through philosophy and heuristics, how understanding the recursive relationship, the kind of haunting of designed experienced and played experience, can be employed to create critical level design. Doing so affords such design the ability to move freely apart from these future and past references and expectations. They free the work from the curse of the specter. Otherwise, these ghosts which haunt the design, are a kind of shadow which shapes each new game, despite the reference's opacity.

Understanding the Experience.

When players report their experiences they often assume the first-person narrative. A player might claim they did one action then the next, as in, *I jumped then I kicked or I captured the base then moved my squad to the North*. This is fundamental to the experience of a game, and ultimately to the experience of a level's design. The level, from basic game design is a series of design concocted problems to which the player provided solutions. When the fiery dragon swung his tail, I, the player, jumped. When the goliath fell, I used its body to reach that which I could not previously. Players experience the level as a narrative. They experience it as a series of events executed either through their own actions or their actions represented by an in-game avatar. This is, in part, why game designs may focus on game verbs – the things player do in a game. It is also why in the grand framing of media, readers read a book, viewers watch a film, and players describe what they do in a game.

The experience of the level thus becomes the narrative of the level. Although the designer did not inherently design the game as a series of specific actions, from its very first play, the level's narrative is written in sequence. If a player fails to solve a level's puzzle in the appropriate order, for example, those non-sequiturs or failed attempts are still written into the complete narrative. The player may have run in circles, but those circles are part of their story. So too, when they get stuck, that becomes part of the narrative.

This is the first reason why the well-constructed level is so important. Well-constructed levels result in good narratives. They result in experiences that are direct, clear, complete and logical. That does not mean that these levels are easy. It instead means that their complexity is not superfluous. A superfluous complexity reads like a narrative that is rich in detail, but lacking in pace, plot, character, theme or other essentials that make for compelling storytelling.

Consider, for example, a fictional game in which the player must destroy an invading horde of dim-witted but brutal aliens. A cut scene illustrates their violent brutality

toward the player's family and then switches to level one of the game. The player character walks a bit, jumps over some platforms and then is confronted with a 6-digit code breaking puzzle. The player narrative is a bit awkward in this case. From the player's perspective, the narrative is simple- *my family was beaten by an invading alien horde, so I went and solved a puzzle*.

Much like the fundamentals of narrative design, this experience seems inadequate. The response is inadequate to the event that transpired. By the most critical eye, the narrative reads akin to something horrible has happened, *so I played chess*. Realistically, level designers do such things with careless execution of requisite player actions. Tutorials may be packed into early levels immediately or even during high tension events.

One such example, from an otherwise exceptional game, is found in Knights of the Old Republic [10]. The player is confronted with an emergency situation in which their spaceship is being attacked. A non-player character rushes in to provide mission objectives. While the ship is being breached, a particularly novice player can wade through 15 minutes of player narrative-disrupting instructions on equipping their character and leveling up. Meanwhile, the player character's comrades are battling and being slaughtered. The player's narrative reads, *I awoke in the middle of a large battle; I promptly attended a workshop on equipping a laser gun and leveling up my character*. The player does not report the necessity of training, just the sequence of tasks they accomplished to move the story forward.

For this reason, it is important to remember that players are perpetually writing the story of their play experience, and as such, their expectations are often fed by the expectations of cohesive, engaging narrative. Games are experienced narratives, even when their narrative is very light. Players report game actions as stories, sequentially organized even if that sequence was not explicitly structured by the games author. This is clearly true of digital games for which narrative is an essential lure, but it's also true of all manner of games. Players of Hopscotch or Four Square report their player experience as a series of events. Even players of kissing games do so [11].

At the same time, for narrative heavy game designs, level designers are contributing the elements that in aggregate comprise the entire story. Level designers are the action authors, architecting the actions that when compiled move the story forward. At its simplest, level designers are plotting the path between plot elements. They provide the challenges that result in the player moving between designed plot elements. Ultimately level designers are creating the interstitial plot elements, the actions that players report as their actions and accomplishments.

Herein is the challenge for designers. Not only are players experiencing a narrative they write as they play, but designers and writers are also seeking to construct a narrative. This is sharply contrasted to other media. Readers of books do not report both the narrative of their book and their actions. Readers do not report, *I read the first sen-*

tence and it said Call Me Ishmael and then I wondered, who is Ishmael? Film audiences do not report books by starting with their trip to the theater, articulating the refreshments they purchased and then interspersing their reactions to the film with the events on screen. They do not report when they crossed their legs during the movie. Even players of analog games, save for role playing and alternate reality games, are unlikely to communicate both the player and player character action while also reporting the play narrative.

Consider the following two narrative samples of player character game reports:

I was the boot and I passed go 4 times before I was able to purchase Park Place. I landed on Baltic Avenue and had to pay, but that was okay because I collected the money back from the community chest. Eventually I won by owning the most real estate and bankrupting the other players

I was walking with a guide when 3 wolves attacked. I shot the wolves, they were hard to shoot at first, and then I climbed into a cave. I explored the cave for a while before I came upon a wild bear that was really hard to kill. After climbing some other obstacle and doing some really acrobatic stunts I found the first clue that set me on my adventure.

The first description is provided from a fictional account of playing Monopoly. The second is provided from a fictional account of playing Tomb Raider 2. These are both narratives of the experience and at the surface they both read as similarly complimentary reports of action. They are a sort of plot for player responses to the challenges presented in game. However, one is the product of a structured narrative the other is the result of a game system that has no specific narrative script.

Monopoly [12] is a game system, with a basic algorithm that is balanced between trips around the board and the element of chance. It has theme and rhetoric and tells a varied story of sorts about real estate monopolies and financial systems. But the story is baked into the game system. Monopoly was not designed to tell a specific story, but instead to tell the same basic rhetoric in each play [13].

The Tomb Raider II game [14] and related franchise, on the other hand is a playable narrative experience. There is narrative writing behind the game and the player's actions rest inside this narrative. In games like this, the levels rest between complete stories that follow narrative arcs and endeavor toward Aristotelian structure. In such cases, there are two narratives at work in one experience. There is again, the narrative of the player's experience – the actions they take in resolving each of the games problems. At the same time the player is contributing toward the exposure of the designer-writer narrative. This is the narrative that shares attributes with the other narrative traditions – books, film, theatre and others.

In terms of the hauntology there are many specters floating about both the player and the designer. For the player there is the ghost of narrative structure, which lures the player into wanting to frame their experience into a narrative arc or 3 act structure as so many of the stories they have experienced have offered in the past. This siren call exists, even when a such structures aren't there, because they player has failed to follow design parameters or when the functional necessities of operating in a plays space necessitate tutorials, evaluation and explanation. For the designer, the specters are the projected path of player performance, a speculation of a future the designer can never full see. There is also the ghost of past narratives, which may be explicitly or inadvertently references, but still cast their shadow on the constructed experience. Each, player and designer, are also haunted by each other asynchronously – as design imagines and expects, and player reads those expectations and travels that path plotted by the designer.

It is the interplay of these two actions, the actions of the author in writing the narrative and the actions of the player in acting within the level that define the contemporary challenge of level design and its ghosts. Level design does not operate outside the authored narrative, it exists between them, allowing both game author and player author to meet. Somewhat appropriately, they meet at a nether space of illusion.

The Illusion of Control

Game designers and authors frequently reference the illusion of control. In short, the illusion of control describes the false impression game designers provide players. A player may, for example, think they are making meaningful choices in a game when by design, their choices are actually meaningless. Choose to go right or choose to go left, each path will bring the player to the same location. The illusion of control is often described as a tactic for player engagement. Players will, as the former logic goes, feel more engaged because they will believe in their agency. Players are engaged by an illusion, or playing among the penumbra of core set of choices.

Interestingly, this tenet goes both ways. Players are also authoring their experience. Players can choose to accept the illusion of control, in much the way audiences of a magic show commit to fictions to enjoy the experience. Yet, like magic shows, players can choose to subvert the performance. Players are not subject to the experience authored by designers and writers; they commit actions to perpetuate them. Players subscribe and commit through action - they do not merely watch. Beyond watching, they must choose to accept and act on provided game verbs and challenges.

When players fail to accept or understand the illusion, a variety of level informing experiences occur. First, and perhaps most disastrously, players can simply get stuck. As an example, in Halo, very early in the experience the player witnesses non-player characters in the player's squad scale a wall. The player can't scale walls. The result

is unsurprisingly a wide variety of forum posts and general confusion about where the player is supposed to go next.

From this perspective, two illusions have come undone. First, the illusion that the author, here a level designer, can control player actions dissipates. What dissipates is the illusion that the designer produced path controls the player. Unlike a film, that affords cutaways, detail shots and other devices that serve to direct the viewer's gaze – these devices are not present in the aforementioned Halo level. The result is players who attempt unsuccessfully to scale a wall they can't. The illusion is comprised of evidence from the world. This evidence comes with assumptions that the player can do what the non-player characters can and that following the non-player characters serves as a guide for where to go next. This impression comes from the experience of playing former games and from the fundamental assumption that the game would not present a player with an unsurmountable challenge so early in game play.

The second illusion to come undone is demonstrative. The level demonstrates abilities the player does not have. The player witnesses a possibility space and pursues it, only to discover those possibilities are an illusion. The illusion is that a player can control their character to do what non-player characters can. Players can't and in so discovering the level designer has broken one of the first rules of magic – never reveal the trick. Getting stuck, in this case, and the resulting solution (go another way) is tantamount to seeing up the magician's sleeve and revealing a collection of tells that relegate magic to mere devices tucked unceremoniously up the designer's sleeve. Worse, this happens early in the game and leaves the player with an unintentional anxiety.

This is a problem that reveals itself in every designed moment that leaves player wondering – how was I supposed to know that? Such issues in level design are not merely oversights, they are illusion shattering. They take the magic away. They disrupt the narrative because they disrupt the illusion of control. The player is constructing their play narrative, but abruptly there is a break in the story. The story ceases to make sense. The flow is off. The experience is incorrect. More than a McGuffin, more than a cinematic departure or a software bug, such experiences have players walking off the narrative edge of the world. These are moments the illusion of a ghost, is revealed to be mere trickery, or phantasmagoric.

It is, from player experience, worse to have an intentioned narrative break than it is to have an un-intentioned one. A bug is the result of variability, but moments where the player is left thinking they should have understood something and didn't are the result of intentioned design. It's not that the player broke the experience; the experience was meant the way it occurred and simply doesn't work. It is the difference between accidentally hitting someone and purposefully taking a swing. In terms of traditional level design, these abrupt breaks are the moments when the designer reminds the player that they are the author of the experience, not the player. To further the analogy, the

author of the experience is not only taking the illusion away, they are steering the player in a wrong direction.

There is however, a silver lining in understanding these occurrences. A good level designer can also understand such moments as opportunities. Much like the magician who feigns a mistake to demonstrate more magic, these abrupt breaks can be employed to make critically valuable level design experiences. From the philosophical perspective of Derrida, they can serve to give body to the specter.

An apt example of such design rests in the game, *Eternal Darkness* [15]. A horror game by narrative convention, the game actively breaks the fourth wall by addressing the player (not the player character). The game warns of corrupted game save data, shows a software crash screen (aka the blue screen of death) and goes black as though the game console's power has been cut. The game feels haunted by critical failures. In short, it adds its narrative specters to the experience of the player. The player's tensions are heightened as they feel the anxiety of not knowing what happens next, and of feeling, a bit, like there may be a ghost in their machine.

Critical Level Design

Critical failures are failures of essential elements of a system. When a car's engine fails, it is a critical failure. To be critical, one must either be essential (as in a critical leader for an organization) or full of careful, examined critique. Critical Gameplay [16], is a term used to describe games that aim to critique conventional game play as a means of critical evaluation. The games intentionally fail to meet typical expectations and in so doing, raise new questions for critiquing those expectations. From 2009-2016 the Critical Gameplay games provided critique of game conventions as varied as enemy stereotype, affection in games, and the value of seeing the world. The games were lauded and awarded by a variety of critics and shown in well regarded venues like Singapore's Art-Science Museum and Brazil's FILE Festival.

Critical level design comes from this notion of critical gameplay. What if level design not only acknowledged the relationship between player and author narrative, but it actually embraced it? This offers a third dimension of level design. This is dimension that lives between the space of player action and author decision. Unlike many games, which allow player actions and the scripted author narrative to exist in parallel, such level design affords for clever and engaging consequence. They take the magic beyond the parlor performance toward mind-bending, ambiguously real experiences.

Consider, again, the experience of *Eternal Darkness* [15]. In this psychological horror action adventure game the player investigate a murder. During gameplay, rather unexpectedly, the player is told that there is a problem saving their game and their data is corrupted. The result is a heightened level of tension. A level of tension that exists within the game, but persists within both the player character's world and the player's world. It is analogous to that

unexpected knock on the door that jolts Ouija board players. Even if the knock is revealed to be the pizza delivery person, the tension and engagement persist. The reported technical glitch in *Eternal Darkness* is a fake, but it's one that strongly effects the level's designed experience. It does so, by acknowledging the specters that haunt the experience. In this case, they are the fear that some portion of the designed experience is real. Or more practically, that real consequences, such as losing progress in a game, are really happening. They nod to a ghost to imbue it with presence.

There have been a variety of games that have employed some version of this experience. With Zack Gage's *Lose/Lose* [17] players destroy spaceships which actually represent random files on their hard drive. Destroying a ship destroys a file, adding a new level of critical anxiety to the destruction of virtual ships. In the *Visit* [18] players use their conventional platformer expectations to disastrous ends. When the player squashes a crab in their way, they are jailed and must complete the same level again, facing the scorn and ridicule of being a notorious murderer. *Steamshovel Harry* [19] lampoons the experience of tutorial heavy games by setting the player up to expect a small succinct player control tutorial. 15-minutes in, when players are still learning interplanetary physics before ever starting play, they catch the joke.

This is not to say that level design via critical design methods is appropriate for all scenarios. Similarly, like magic, its overuse becomes its demise. Where once devices like novel fonts or frame wipes were interesting, their overuse can quickly become the Comic Sans typeface or star wipe of design practice. Critical level design is then more an opportunity to ask the question about how player action and authored narrative may be explored in unison. It is an appropriate design practice as practice. It is a way to think critically about assumptions level designers are making and where those assumptions intertwine with player assumptions. Perpetually acknowledging the specters of game design may move the experience from an engaging illusion to discomfiting cacophony.

The Recursion

While critical level design affords for the occasional epiphany moment that hyphenates a game experience, it is likely not the solution for sustained level design. A game chockfull of critical level design is more likely to feel like an Avant-garde arrangement appropriate to esoteric audiences, than becoming the popular game of the year. Instead the appropriate solution and design technique may be to understand the interrelationship between the two narratives –player action and author action.

Until now in this writing level design has been discussed as two parallel paths. The player makes actions designed into the game. The author makes global decision about how those actions aggregate or result into a complete narrative. The notion is that there are two perspectives, that of the architect of the experience (the game or level author)

and that of the user (the player as author of their actions). The game, and more specifically, the level is the place in which these two meet.

However, the game and level are not the only place in which game author and player author meet. They also meet in gamespace. Gamespace is the greater area around the game. It is the space that persists when the digital game is powered down. It is the space that pervades social media, meme generation, and ultimately other games. The phrase, "your princess is in another castle", has meaning to players that extends beyond the game in which it first appeared [20]. Its meaning includes a myriad of emotions and experiences, from the disappointment of knowing your game goal has only partially been met, to conjuring the specter of possibility that the game goal may not be achievable at all. That one phrase persists as a meme and when embed in other games conjures all references to it.

In the context of meme's interplay of storytelling mediums, and the reference both conceptually as hauntology and literally as ghosts, it's important to reference the phenomena of creepypasta games. In short, creepypastas are ghost stories that are born on the Internet, to which creepypasta games owe reference or subject. For more detail, it is best to read Crawford's analysis of glitch horror and the ways in which real-world anxieties around technology haunt the narratives and scenarios of Internet born ghost stories [21].

Gamespace is the specter by which all game authors are haunted. No game exists in a vacuum and no level design decision stands without previous reference. The problem is that every player does not have the same references from which to draw. Players may know that a ray of light cast on an object may indicate a quest. Players may not know specific control schemes or assume certain textures imply a scalable or unscalable wall. However, the reality is that as the length and variety of game experiences continues to grow, so to do the variety of references. Gamespace is not a narrowing space, it is an expanding one, more akin to an ever expanding ray of light than the limited cannon to which it is sometimes ascribed.

This is the challenge level designers struggle with frequently. If the player has played a certain game, a level designer can expect that they know something about the level. If the player has not, then the level becomes harder. Likewise, if the player has played a certain game, the level may be too easy or too similar. This particular challenge is not limited to games, as cinematic and narrative conventions in film and books have also struggled with this. In reality, humanity lives in a sea of reference [7].

Yet there is something that distinguishes games from other media, beyond human computer interaction and user experience. It is the action. It is the doing. The player acts on the narrative and reacts to the reference. Each player brings with them their own references, or their own gamespace, which they share formally or informally with other players. Players play with ghosts, and designers conjure them.

Since this game space exists and persists beyond the game, as forums, as gameplay videos and as social media memes, the level designer is at once designing from their gamespace and responding to the gamespace of their community of players. Level designers are balancing the expectations of their genre, game type, narrative style and aesthetic. The level is an apex of these elements and more, which are constantly effected by their referential histories. These histories include interaction standards, problem solving strategies, and even cross-media conventions. While violent games like *God of War: Chains of Olympus* [22] can aptly use the weight of a victim's dead body as a puzzle element that same level design would be grossly incongruent with the themes and referential history in *Animal Crossing* [23].

Good level designers are aware of this interplay. They understand the methodologies to balance the gamespace experience with the game experience. They know which ghosts to call and are aware of what is mostly like to haunt their creation.

Likewise, players understand how to conjure the appropriate references from their gamespace to the player action experience. Effective players do not seek level cues in 3D Role Playing Games that they learned in simple 2D platformers (unless there is homage built into the game). This is where level design becomes a recursion.

Extrinsic gamespace informs the narrative in two distinct ways. First it provides the initial input that propels expectation in the level. Player narratives begin with a fundamental set of expectations in much the way a linear story is framed as Hero's Journey or Aristotelian Structure. It is these traditions that discern a tragedy or comedy, the one ends in death, the other in marriage. In games, everything from preliminary reviews, Internet chatter, and Twitch streams effect the player before they ever engage in the game, and after they have.

That foundational player expectation, the desire to put a linear structure to events, initiates the player's goals and framing of the experience. The level designer knows this and must act upon such assumptions. The level designer is consistently aware of the conventions of their environment, including those that come with gamespace reference.

Secondly, the gamespace narrative is informed by the narrative reporting on the game. The player does not merely play the game, they report to themselves or others the events of their play. This is typically an omniscient report which moves between player as in-game avatar and player as user. The result is gamespace narrative that includes reflections on how the player felt and what the player did. Level designers consider this, in practical terms as working to frustrate or facilitate the player. It also includes fundamental questions about how player actions integrate into the larger narrative of an entire play experience.

From this lens, level design is constantly reflecting on itself like a hall of mirrors, but also feeding its next step

based on previous input. As such level design becomes a complex function of player narrative, game narrative and extrinsic gamespace. The result is that each level becomes a miniature narrative encapsulated within a larger narrative which in itself exists in greater narrative contexts.

This is the recursion that creates effective level design. The level designer is aware of the narrative constructed by the player in solving the challenges placed before them. The level designer incorporates that narrative to propel the greater game narrative. Each of these is received and evaluated respective of the greater game space. None of these elements exists independently; instead they are a function of constant interplay, as the experience of prior level within the same game effects the reception of subsequent levels. Solving a puzzle on level 2, makes a complex puzzle on level 9 a bit more apparent but the more complex puzzle is only interesting if it likewise propels the greater narratives.

The player's story is a result of a series of recursions, between level design and the player's own gamespace. Their ability to meet the challenges of the game is informed not only by their extrinsic experiences, but by their continued engagement and commitment to the actions of the game. The player must proceed through the loop of playing and learning to achieve their goals within the game. Yet, as they learn, they become a different player that must be met with more substantial challenges and whose gamespace has expanded to include the previous experiences provided by the level design.

To round out the analog to hauntology, the specters that haunt the designed experience only exist when they are acknowledge. Their substance comes not only from the shadows they cast, but from the acknowledgement that those shadows exist. Moving toward or away from a ghost, is acknowledgement of its presence and it's power.

Such play is subject to a narrative and experiencing constellation. This narrative and experiential constellation allows the level designer to create a complex and satisfying experience from the conventional feedback loop of player and game. The result is a player population constantly seeking a better iteration, a new solution from the same basic input, but like a recursion, at least slightly better than the last. They are chasing shadows which must grow to fill the space of the last one cast, or ghosts that grow larger by the balance of light than by the ephemera of their existence.

Acknowledgements

This research was supported in part by the generous funding of the John S. and James L. Knight Foundation.

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His work has received awards and recognition from the Games for Change Festival, the Digital Diversity Network, the Association of Computing Machinery's digital arts community, Black Enterprise and others. He authored or coauthored more than 50 papers, articles and book chapters on games since 2009. His creative work has been selected for showcase internationally including New York, Paris, Sao Paulo, Singapore, Chicago, Vancouver, Istanbul, and others. Lindsay curated or co-curated Blank Arcade, Smithsonian American Art Museum's SAAM Arcade, the Games for Change Civic and Social Impact program and others.

He has given talks at SXSW, the Game Developers Conference, Games for Change Festival, the Online News Association, the Society for News Design, and many other industry events.

Between 2013 and 2018 he was the founding director of the American University Game Lab and Studio in Washington, DC. From 2009 to 2013 he was the Armstrong Professor at Miami University's School of Art. Lindsay also served on the board for the Digital Games Research Association (DiGRA) between 2013-2015.