

Narrative Mechanics: World-building through Interaction

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Abstract

The narrative potential of video games extends beyond thematic retellings and branching paths of authored stories. Without a doubt, non-linear narrative structures find a comfortable position in games that is congruent with the very nature of the medium. The possibilities of multiple pre-constructed endings, however, are eclipsed by the less structured play that occurs on the periphery of plot points in the second to second interactions of the player - the procedural, experiential development of narrative through gameplay. The agencies of the player can be conceptualised as verbs of interaction; devices that enable players to engage beyond a world's pre-authored narrative to convey meaning through play itself. Ludonarrative consonance heightens mechanics as functional tools of navigating a text to devices equally as important as existing literary and visual narrative techniques. This paper explores a variety of video games and the intertwining of their ludic and narrative elements, culminating in a case study of *The Elder Scrolls III: Morrowind*; a game that can be seen to display traditional approaches to world building, reinforced by mechanics that reveal historic lore, religious practice and socio-political facets of the game's fictional world.

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Introduction

Video games, as an interactive medium, present a plethora of possibilities for storytelling that stand apart from other forms of narrative. In particular, world-building potentials extend beyond textual elements, and even environmental storytelling, to the design of game mechanics themselves. Player agency within a system presents the opportunity for narrative to be revealed through gameplay via the careful design of interactions. This paper explores a number of approaches to narrative in video games and considers some of the potential pitfalls of interactive storytelling as well as those aspects in which the medium flourishes. Against this backdrop, the discussion of how mechanics themselves can be imbued with narrative qualities emerges and is examined through a number of theoretical lenses and case study examples.

Within the frames of this paper, a broad definition of game mechanics may be necessary to contextualise discussion. A design oriented approach, such as that offered by Richard Rouse, may satisfy this requirement. Rouse defines mechanics as “what the players are able to do in the game-world, how they do it, and how that leads to a compelling game experience” (Rouse 2005: 310). There are, of course, a number of different ways that game mechanics can be conceptualised. In this instance, however, the intention is not to challenge definitions but to discuss mechanics in a broader sense of player agency and interaction within a virtual space. Similarly, the usage of world-building and storytelling are not poised to protest existing discourse but rather serve as a wider narrative context that mechanics can be applied to. The simplicity and inclusiveness of David Herman’s definition of storyworlds seems like an appropriate angle to frame this dialogue:

I use the term storyworld to refer to the world evoked implicitly as well as explicitly by a narrative, whether that narrative takes the form of a printed text, film, graphic novel, sign language, everyday conversation, or even a tale that is projected but is never actualized as a concrete artefact (Herman 2009: 72).

In this sense, worlds are constructed through all aspects of a video game, including written dialogue, characters, level design, art assets, and, most importantly, game mechanics. Thus, interaction between a player and a game's world can be seen as a potential narrative device.

Interactivity

While game mechanics bear relevance towards world-building in all video games, reference to transmedial worlds becomes a resounding entry point as these worlds seek to expand their narrative by exploiting the possibilities unique to each outlet. Jenkins describes that "in the ideal form of transmedia storytelling, each medium does what it does best" (2006: 2) – each rendition of a storyworld expands its universe in different ways that exploit the affordances of each medium through which that world is approached. A book may easily provide a detailed account of historical events – who was involved and their motivations – while the advantage of film may be displaying the emotion on a face or the beauty of a vista with a level of immediacy unattainable through text. The synthesis of auditory and visual elements facilitates a space of possibility not necessarily better but inherently different than what may be found in a written text. This same notion can be considered true for video games. While audiovisual components play a vital role in this medium, it is interactivity (the shift from viewer to player) that most significantly defines the form. It is then the design of this interaction that surely shapes how narrative worlds are built and conveyed in a game, not simply the mere existence of interaction itself: after all, a feature-length script displayed as a scrolling text on the screen does not quite constitute the successful expansion of a novel into film.

Video games are unique among other mediums in that they are interactive – requiring the continued input of a player for their worlds to be actualised and experienced. The term 'interactive' can be precarious at best as it is used in a variety of contexts to an array of different ends. Manovich considers the ways in which all forms of media could be interactive in the sense that all readers, viewers or participants are experiencing their own, unique instance of any particular work: "All classical, and even more so modern art, was already »interactive« in a number of ways. Ellipses in literary narration, missing details of objects in visual art and other representational shortcuts required the user to fill-in the missing information" (Manovich 2001: 71). While this approach also applies to games, it is useful to clarify more specifically the kind of interaction that occurs given the differences in expected agency between watching a film and playing a game. Zimmerman (2008)

conceptualises four approaches to interactivity to distinguish the potential differences in this interaction. All forms of media text can be considered cognitively interactive, meaning the interpretive interaction between a reader and a text that Manovich references. Video games, however, are unique in their explicit interactivity which requires “overt participation” with the “designed choices and procedures of the text” apart from the functional, utilitarian interactivity of pressing the play button on a video or turning the pages of a book (Zimmerman 2008). As a medium, it is this explicit interactivity that sets video games apart in a wider ecology of media, what Aarseth describes as the ergodic, non-trivial effort required to navigate a text (1997). It is then interactivity, the salient quality of video games, which becomes essential in the way worlds are built and narratives are conveyed within this medium.

Narrative context

Long standing criticism of the capacity of video games to tell stories has been directed towards the tensions between the explicit interaction and the intentions of an author. Authorial intent is sent spiralling into disarray when the potential for the player to circumnavigate the plot becomes a very real possibility that must be designed for. Ernest Adams once suggested that “interactivity is almost the opposite of narrative; narrative flows under the direction of the author, while interactivity depends on the player for motive power” (Adams 1999). While this conversation may in some ways have moved beyond these primordial concerns, it is essential to keep these sentiments in mind when discussing world-building in video games, as what Adams problematizes certainly frames a heritage of approach to narrative design.

A classical and often criticised route of narrative in video games (transmedial or otherwise) has been the overlaying of existing narrative tropes and conventions from pre-existing mediums on top of systems that are agnostic to the significance of their context. *The Lion King* (Westwood Studios 1994) expands the world of the Disney film by challenging players to navigate through a series of platforming levels which are aesthetically derived from the source film. While this certainly presents a new way to experience the storyworld, it can easily be argued that the interactive potentials of the medium are not fully being exploited by this particular work. The game bears more resemblance to *Super Mario Bros.* (Nintendo 1985) than the world from which it derives. In fact, anyone who has seen the film can attest that lions do not fare very well falling from great heights – an amusing irony in making the game a platformer. It may be unfair to judge a game two decades old as a convenient source of criticism towards narrative in video game de-

sign, but, nevertheless, *The Lion King* is one of many titles that demonstrate the ways in which texts can and have been aesthetically remediated while doing little to expand their narrative worlds through meaningful interaction.

In discussions regarding interaction and narrative, it is unsurprising that one of the first touchstones is the capacity to tell stories that are non-linear and able to be affected by the player. The agency afforded by interaction opens up the possibility for multiple discourses that may be experienced in different orders and often to the exclusion of other narrative arcs. A classic example of this approach can be seen in games such as *Fable* (Lionhead Studios 2004) where the player's actions allow them to pursue either a good or evil path, affecting the outcome of various events in the story. The potentials provided by such a system present an abundance of storytelling and world-building possibilities as a single text can now present a number of perspectives, side quests and divergent paths that are largely inaccessible within other mediums. Interestingly, many of these possibilities are often reduced to a number of limited 'forks in the road', where a decision made feels more reminiscent of a pick-a-path adventure book than a rich narrative setting. An example of this can be seen in the *Mass Effect* series (Bioware 2007, Bioware 2010, Bioware 2012), sci-fi role-playing games in which players are able to make a vast amount of decisions that have implications later in the story. Notably, the series spans three games with continuity between the titles where actions in one game extend to consequences in its sequel. Despite the rich tapestry of potential arcs involving different characters and political decisions, the original ending of the trilogy distills the outcome of potentially hundreds of hours of game time down to three scripted endings – each a single cutscene with only slight variations between them. Due largely to a discontented fan base, these endings were later supplemented with downloadable content providing further exposition. Ultimately, the ending of *Mass Effect* is symptomatic of the difficulties that non-linear narratives of this kind face. There is a sense of impracticality surrounding the number of actions that can significantly affect the story as the number of authored outcomes can grow exponentially with each option given.

The authored narratives of games like *Mass Effect* are in many ways elaborate pick-a-path adventure stories. This is not to demean the potentials of interactive fiction or visual novels, but rather to point out that the supposed interactivity of video game narrative is not far removed from the ground that has already been well-tread long ago. It is ironic that the authored, textual narrative of video games, that which is told and most akin to literary forms, often occupies a comparatively short amount of time compared to the hours of gameplay that may lead to each plot point. For *Mass Effect*, one hundred hours of game time concludes with a four-minute cutscene. What may be most exciting, then, is not the forks themselves but the roads leading to them.

Narrative play

The remediation of literary worlds into film presents a host of structural as well as technical implications that affect the ways in which stories are told and universes unfolded. Cinematography, editing, lighting and composition are all cinematic devices that shape the worlds of the silver screen. In a similar sense, the interactive aspects of video games prompt a language of their own that can be understood and interpreted analogously to how a film theorist may discuss *mise-en-scène*. Jenkins's notion of the game design as a narrative architecture offers a useful perspective from which to consider narrative in video games beyond that of dialogue or text. Through environmental storytelling narrative can be suggested while evocative spaces exist in dialogue with prior experiences to shape new or existing storyworlds (Jenkins 2004). The idea of a player enacting a narrative puts more agency on a player in terms of interactivity but also heavily prioritises spatial navigation and the design of environments. With this sentiment in mind, it is worthwhile to consider not just how a player may navigate a space as a disembodied virtual camera but how the mechanics of explicit interaction that a system may offer can communicate narrative as intently as the aesthetic design of an environment itself.

Salen and Zimmerman emphasise that:

[...] recognizing games as narrative experience means considering them not just as bits of plot that are arranged and rearranged through interaction, but instead considering them as an ongoing activity in which a player engages with a core mechanic (Salen & Zimmerman 2004: 26; 13).

The associations between interactivity and narrative can be decoupled from decision trees and alternative endings, instead looking to the occurrences in-between, the moment to moment gameplay that shapes and defines the very experience of play. Instead of mapping plot points or even the distances between them, how the player navigates these spaces on a ludic, moment to moment basis can be deliberated. Game designer Jesse Schell defines the 'verbs' of game mechanics as operative actions that can be introduced and combined for new kinds of interaction and emergence in the possibilities of a game space (Schell 2008). Thinking about game mechanics in this way can be useful in that it prioritises gameplay as a narrative tool in ways more comparable to the use of literary devices in storytelling. A similar idea is expressed by indie game developer Anna Anthropy who uses actions as verbs to discuss games. Actions as mechanics can be described as "any rule that gives the player liberty to act within the rules of

the game” (Anthropy & Clarke 2014: 15). While this approach is useful in the ways challenge and progression within games can be designed, it also has immense value in a narrative context as different mechanics can be used to convey implicit aspects of a storyworld. Consider the implications of shooting as a mechanic – ‘to shoot’ may serve a very specific gameplay purpose (challenge or competition for example) but what does this action say about the wider narrative world? Perhaps it is a dangerous place? What events have led to this character being in these circumstances? Is the player avatar a hero or a villain? Certainly the way we understand an environment is affected by the player’s agency within it – the world looks completely different if our lens to view it is exclusively down the barrel of a gun and its feel depends, for instance, on how the mechanics of that gun are designed.

As previously discussed, the relationship between game mechanics and narrative can be contentious at times, and the association that the verbs of interaction have with the wider world of a game is fairly easy to criticise when the two motivations fail to align. Certainly, criticism can be directed towards the marrying of narrative and the chosen actions through which it is expressed: “it is clear that some fictional genres lend themselves to interactivity better than others. The key to success seems to be the appropriate pairing of story genre with play mechanic” (Pearce 2002: 22). This concern has previously been described as ludonarrative dissonance – where gameplay and narrative appear to work towards opposing ends (Hocking 2007). This term itself has been popularised (and often misconstrued) in discourse within the public sphere as well as games journalism and so it is used here simply to point to its inverse – ludonarrative cohesion, unity, and resonance: where mechanics are congruent with the narrative context presented or story being told. On its own, there may be a number of ambiguities surrounding what this actually means or how it is quantified, but in addition to the other perspectives presented ludonarrative cohesion provides a clean and concise means for considering spatial design, player agency, and game mechanics within a single umbrella. An example of this can be seen in the original *Silent Hill* (Konami 1999), an early entry into 3D horror games that is symptomatic of the camera and control schemes of the time. By today’s standards, its tank-style controls are unwieldy with a difficulty in aiming and moving only exacerbated by an inconsistent perspective and tilted camera angles remediated from horror cinema. Whether intentional in design or not, these elements that would typically make for a poor user experience effectively empower the narrative of the game. The protagonist of *Silent Hill* is a typical average Joe with no military training, confronted by undead horrors in what appears to be a ghost town. The obnoxious controls make aiming difficult, each confron-

tation a moment of panic made worse by the scarcity of ammo players are faced with. Shooting as a mechanic may have very different implications in other games, such as multiplayer first-person-shooters, where gameplay is more about action and heroism. The design of this control scheme in *Silent Hill's* instance disempowers the player and is thematically cohesive with the dark and foreboding atmosphere of the game. In this case, 'to shoot' is contextualised within the wider narrative of the world and resonates with the player character and their circumstances.

An example of a different kind of ludonarrative cohesion can be found in the adventure platform game, *Ico* (Team Ico 2001). A core mechanic of the game is that the player character (a small boy) must lead a princess named Yorda by the hand through a winding, multi-layered castle that they are attempting to escape. The game could have taken a number of approaches with this mechanic; Yorda could follow the player automatically (as non-player character companions often do in video games), the player could have been given control of both characters and even the act of holding hands itself could have been done based on proximity or through a toggle. The implementation of 'to hold', however, is established by the player having to physically compress a button on the controller to maintain a grip. This seemingly minor point underpins the action depicted on screen as the player must quite literally 'hold on' and letting go of the button will make the characters let go of one another. The player's input is cohesive with the ludic elements of the game, which champions the notion that mechanics themselves offer the potential to situate a player in a world, rather than simply allowing them to move through it.

Ico establishes cohesion between player input and the design of mechanics, while *Silent Hill's* control scheme emphasises the disempowerment of the player to situate gameplay in the horror genre. Both of these examples demonstrate the ability of game mechanics to communicate aspects of narrative, both explicit and implied, through play. The question is then raised: if mechanics and actions are able to offer narrative cues or situate the player, then how could this notion be extended towards larger scale world-building? Given the ludic nature of gameplay, it is perhaps easier to communicate something broad or tangential about a world through interaction than it is to convey an intricate or motivated plot point through the same means. If the player's potential interactions within a space are to move, shoot and pick up ammo, a plethora of information is immediately communicated about this world without the need for explicit discourse. In this sense mechanics become world-building tools that could be seen to be as valuable as more traditional approaches of dialogue, text, spatial design and environmental storytelling.

Case study: *The Elder Scrolls III: Morrowind*

The Elder Scrolls III: Morrowind (Bethesda Game Studios 2002) is a game in the *Elder Scrolls* series, the third of (currently) five high fantasy, open world, role-playing games. The series has a strong emphasis on world-building. While all of the games contain main quests that could be said to resemble a more traditional, linear form of storytelling, it is entirely possible to neglect these parts of the game in favour of exploration, joining various factions, and completing an excess of side quests and plotlines that have the potential of engaging players for hours. One strength of this type of game design is that even if the player circumnavigates all of the written dialogue and textual elements, the gameplay itself contributes significantly to the overall verisimilitude of the world, making the series an ideal candidate for discussing narrative through mechanics. Selecting one of the older games in the series for analysis may appear odd, but this is entirely intentional as *Morrowind* holds certain gems within its world-building and narrative design that stand out among the other titles. This notion is exemplified further when juxtaposing the game against the newer releases in which the same mechanics have evolved as time has progressed.

Morrowind is set on the island of Vvardenfell, a swampy, wild and dangerous province inhabited by disparate peoples with as equally varying intentions. Complex aspects of Vvardenfell's society, such as religious beliefs, slave culture, social and political standings, can be seen to be communicated through a variety of game mechanics. Particularly, the ability to read books in the game, the design of playable races, and the implementation of a fast travel system are examples of interactivity being used to reinforce the existing narrative context and further build the world.

Books and religion

The Elder Scrolls seek to establish a sense of place and history. Hundreds of books can be picked up, from scientific journals and historical accounts to personal diaries. Some books serve as means to increase the player's proficiency in certain skills: reading *The Art of War Magic*, for example, will provide an increase to the player's destruction magic attribute. While books serve this particular ludic purpose of increasing the player's statistics, what is perhaps more intriguing is that each of these books can also be explored as a readable text. Spread across multiple pages, players can read stories of the world with cross-references between characters and places that exist in other games in the series as well as those that are yet to be developed – the stories and mythos of Tamriel (the setting of the series) are not signposted or placed conveniently;

rather they are buried in damp caves, ancient ruins, and trade markets to be uncovered through play. The ludic consequences further extend as the textual elements of these books also implicitly serve gameplay. For example, alchemy books contain information about how to craft certain potions while notes left by characters may indicate directions to hidden treasure caches – instances of building the world while encouraging the player to perform and interact with these texts so that they become less about exposition and more sources of meaningful information that can drive gameplay.

A particularly notable example of textual information serving gameplay exists within an in-game book titled *The Pilgrim's Path* – a religious text detailing a pilgrimage to several holy sites. Most memorably, the player can follow this path and re-enact the pilgrimage detailed in the text. The player may find or steal this book and explore these religious sites themselves but the journey becomes necessary if they wish to join The Tribunal Temple, the religion of the native Dunmer. As opposed to simply joining this faction through a sequence of dialogue, what better way to express the ideals of this belief system than have the player perform this pilgrimage themselves. YouTube video game critic MrBtongue exemplifies this further by describing how upon performing this pilgrimage, he removes all of his armour and combat equipment, not because it is required, but because “the Tribunal faith has an ascetic quality” and it feels as though “this is what a religious pilgrim would actually do” (MrBtongue 2012: 6:50-7:05). Ludonarrative cohesion between this world and the player's actions within it facilitate what Pearce describes as an “ideal case” where “the play mechanic is synonymous with the narrative structure; the two cannot be separated because each is really a product of the other” (Pearce 2002: 22). The Dunmer religion certainly exists in this world as a static narrative backdrop but it is through the interaction of the player that it is made meaningful and becomes actualised through play.

Subjugation and slavery

The Dunmer are a fantasy race in *The Elder Scrolls* that are akin to dark elves, they are intelligent, unsympathetic, withdrawn and are xenophobic of other races. Slavery is both commonly accepted as well as legal in *Morrowind* with slaves found in private residences as well across a number of wealthy Dunmer plantations throughout the land. Most of the slaves are Argonian and Khajiit; lizard and cat-like beast races that are outsiders to Vvardenfell and in turn subjugated by the Dunmer. This narrative context enriches the world of the game by introducing a deeper socio-economic layer to the setting. This cultural context is conveyed in most of the expected ways: dialogues with non-player

characters reveal prejudices, in-game books describe histories of peoples and their beliefs, players can encounter (and even choose to free) slaves from their shackles, visit slave camps, and even partake in quests focused on slavery. The world is built in such a way that the narrative context informs and inspires the content of the game itself so that even the most unobservant player will begin to understand the world without explicit exposition. This being said, all of these ways in which *Morrowind* incorporates slavery into its world are fairly conventional – including histories and quest lines is the bread and butter of any fantasy role-playing game. Where *Morrowind* truly exemplifies world-building through mechanics, is in the intersection of lore and ludic elements.

If the player chooses to play as one of the subjugated beast races they will find that they are unable to equip certain pieces of armour on their character. In particular, both Khajiit and Argonians are unable to wear boots or equip the majority of helmets in the game; the armour available for purchase in Vvardenfell is not made to accommodate their large digitigrade feet and extended snouts. Consequently, the equipment options are more limited for these characters, which results in a lower armour rating when fully equipped. This is significant because it is an example of what could have been a purely aesthetic or thematic element extending to the core mechanics of the game: the player's statistics and combat capabilities become intertwined with the social construction of the world and the race they choose to role-play as. Interestingly, the preceding titles in the series, *Oblivion* (Bethesda Game Studios 2006) and *Skyrim* (Bethesda Game Studios 2011), remove these differences between races. One could speculate Bethesda's reasoning (game balance, production costs) but ultimately the juxtaposition between the systems serves to only further emphasise the value of mechanical narrative of this kind: textual cues and environmental design are underpinned by the fact that the player is not simply visiting the world, but inhabiting it, subject to and subjugated by its rules, cultures, and customs.

Fast travel and public transportation

The Elder Scrolls series prides itself on offering immense environments to be explored that are vast as well as continuous – a player can walk freely from one location to another as opposed to other games that may feature only key areas as playable regions. Interior sections such as caves and buildings are loaded as separate maps but are linked with a sense of scale that implies a Euclidean design in the connectedness of the world. Exterior sections are explicitly joined and the space is perceivably unbroken, allowing players to traverse the world unrestricted. This approach enables numerous

world-building opportunities by filling the landscape with characters, abandoned dwellings, hidden caves, treasures, religious shrines, and geographical points of intrigue.

Through an open world design a narrative tension is introduced in that certain quests may ask the player to travel to a distant location to retrieve an artefact or speak to another character. This makes sense in terms of an expansive, fleshed out world, where it may take days of travel to reach a destination. However, this also introduces a difficulty in sustaining quest lines as walking large distances becomes tedious after a particular route has already been discovered and well-travelled. Maintaining a sense of narrative flow may also become problematic as the time between plot points in a quest can become more drawn out than perhaps some storylines warrant. For a film, periods of insignificance can be passed over, a luxury not always afforded by games (Juul 2001: par. 34). *Skyrim* (and many other games) mitigates these potential concerns by presenting players with a map screen that allows them to fast travel instantaneously to any previously visited location. *Morrowind* is interesting in that while it too includes a method of fast travel, the form that it takes arguably, exhibits more ludonarrative cohesion and in turn contributes to a deeper construction of the world. In *Morrowind*, the player is required to take various forms of transport to reach desired locations. Stilt striders (gigantic armoured arthropods), can be boarded to travel between cities, while boats service Vvardenfell's coastal settlements. Both of these forms of transport require conversation with a caravaner who will charge a small fee that can be bartered in order to utilise their services (intimidation is also an option). While this system is by no means a fully fleshed out set of mechanics (you cannot buy or steal a boat or stilt strider for example), it services the ludic need for fast travel while weaving this mechanic into the narrative context of the world. Perhaps most interestingly, using these transportation networks behaves similarly to *Skyrim*'s fast travel in that after boarding the vessel the game simply loads the player to their destination. This is significant because the mechanical function of teleporting the player could be seen as being identical between the two games – the difference being that *Morrowind* grounds the system within its world.

Beyond narrative justification, transportation systems in *Morrowind* can be seen to reveal socio-political information within its setting. Expectedly, only coastal regions offer boat services but the nuance of other methods says a lot about the society in *Morrowind*. Vvardenfell is a melting pot of different cultures and as the homeland of the Dunmer Imperial (a foreign, pseudo western-European faction) settlements, law, and influence exist in pockets throughout the island. Cities influenced by Imperial laws contain services such as mage guilds where guild guides offer exclusive magical transportation services unavailable to ordinary citizens. Inversely, locations that are

more xenophobic toward outsiders, such as the lands of House Telvanni, are inaccessible by guild guides. By considering the connectedness of different methods of transport, players are given insight into social and political leanings within the game: stilt striders are reserved for Dunmer cities on the western side of the island, coastal towns have boat access, and those regions more hospitable to outsiders tend to offer magical transportation. All of these factors are scaled by the size and importance of locations with small towns often being accessible only by foot, while large cities may offer a variety of options. This can be extended to include a hidden network of teleporters within ancient Dunmer strongholds. The transportation options in *Morrowind* begin to look like an intricate urban transport map as opposed to the typical high fantasy world that might ordinarily be expected. While *Skyrim* addresses some of these same observations through options to travel between cities by carriage, the emphasis of this example is not for the sake of holding one title over the other, but rather to illustrate how an example of a seemingly minor mechanic, such as fast travel, offers a range of world-building potentials dependent on its implementation.

Conclusion

A well-constructed storyworld promotes “inferences about the situations, characters, and occurrences either explicitly mentioned in or implied by a narrative text or discourse” (Herman 2009: 73). It is in this sense that while interaction within video games may be explicit, the narrative invoked is often implied. *Morrowind* demonstrates this by conveying complex aspects of the world such as religion, oppression, and socio-political contexts through its game mechanics. While these are not the only means by which the world is built, they are aspects worthy of discussion as it is the interactive elements of video games that open narrative potentials apart from other mediums. Thus, the agency of a player and the actions made available to them become vital devices in a narrative toolkit when exploring storytelling and world-building within any explicitly interactive setting. Ludonarrative cohesion underpins this sentiment while signalling the importance of looking beyond interactive narrative as a series of branching paths and seeing it rather as a complex system of actions. Careful design of these interactions is essential; it is not so much what the player can do but how they do it. The arguments and examples presented here are by no means exhaustive, and this discourse would undoubtedly benefit from further investigation into the relationship between narrative and mechanics across future case studies. What is ultimately intended to be suggested is that interaction needs to be understood

as something nuanced, iterated, and meaningful – a space of possibility. To once again echo Jenkins (2006), in order for the medium to do “what it does best”, it must actually be designed to do so. Simply telling a story in a video game does not inherently entitle that narrative to reap the benefits of interactivity. The design of a button press, a control scheme, an aiming mechanic, a movement or equipment system can be elevated alongside familiar cinematic and literary devices of storytelling, through which interactive worlds can embody the nature of their medium to an absolute extent.

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