Triggering Core Emotional Responses from Interactive Narratives

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Abstract

Interactive narrative video games are considered capable of engendering emotional responses from players. This idea extends from the presupposition that the player has a level of control over the outcome of an interactive narrative's story, and therefore develops an emotional connection to it. However, interactive narratives are unlike any other form of narrative, and cast the player as part author and part audience. To better account for this dual role, I propose the term *viewer-user* instead of player. The prescriptive nature of story choices in interactive narratives inhibits the viewer-user from making an emotional investment. Drawing on my acting training, I explore how emotional connections are made in narratives, and how interactive narratives need to be rethought in order to truly engage the viewer-user as a successful medium.

Introduction

Narrative structures have remained largely unchanged since they were established by Plato and Aristotle over 2,000 years ago (Louchart et al. 2006, 1). Even with the invention of new types of media, the audience has retained a consistent relationship to both story and storyteller. Like books and plays, traditional film narratives engage the viewer on an emotional level that is experienced in a passive state. We empathise with the characters on screen, but it is the characters, not the audience, who make the choices that drive the story forward. Many recent video games feature a strong film element as well, generally in the form of cut-scenes that divide sequences of player action. As a result, in this format the audience is no longer passive but must engage with the story to propel it forward. In order to move to the next section of the story, the player must successfully complete the current objective.

The role that the film audience plays is well-rehearsed and well-understood: we live vicariously through the characters. When performed well, a character's emotional state becomes our emotional state. We want the protagonist to win, whether for good or for ill, but we are powerless to help them achieve their goal.

In contrast, the role between audience and narrative is reconfigured in interactive narratives. These kinds of narratives most commonly exist in video games. Decisions made by the player can have a significant effect on the outcome of the story. The term *player* – someone who is actively involved – automatically implies a more participatory role than *audience* – someone who watches and listens. As a film audience we may wish for a character to make a different decision, but part of the film experience is the acceptance that we are helpless to change the events that unfold in the narrative. We are a *captive* audience – effectively captured and restrained in a world entirely separate to the one unfolding on the screen. Like patients with locked-in syndrome, we are solely left to empathise with the characters, unable to high-five their victories or intercede in their tragedies.

In interactive narratives, the player assumes the dual role of spectator and participant. However, the term *player* is not sufficient to fully describe this role; a more aptly descriptive term would be: *viewer-user*. Certainly there are aspects of viewership that occur in interactive narratives. These moments occur during cut-scenes or scenes that are dialogue-heavy. During these moments, the player's role is similar to that of a film's audience. However, when the cut-scenes end and the game returns to interactivity, the player resumes the role of a particular character and to varying degrees becomes responsible for the decisions and actions that character takes. During these moments, the player becomes a user – that is, a specific agent acting out a role within a system (the game). *Viewer-user* describes both these roles as symbiotic and necessary to the interactive narrative experience.

While the role between audience and film narrative is well understood, the role between viewer-user and interactive narrative is still being determined. Films are good at evoking a wide range of subtle emotions in their audiences. Film audiences are able to make strong core-emotional connections to characters in the narrative. However, interactive narratives are yet to generate such sophisticated core-emotional responses in viewer-users. In this paper, I draw on my own acting training

to investigate how interactive narratives inhibit viewer-users from engendering core emotional responses, and offer ideas for how interactive narratives could better achieve this goal.

The role of interactive narratives

Video games have frequently been studied for two reasons: to determine the effect that simulated violence has on players, and to determine the effects of long-term use on video game addiction. More recently several studies have emerged that investigate players' emotional responses to video games. However, this area of research is still ripe for enquiry (Ravaja et al. 2004, 340). Typically, game companies have not viewed story as an important game design element because it does not result in greater sales. However, this opinion is drawn into question as we better understand video games' abilities to trigger emotional reactions in players (Cage 2006, as cited by Surman 2008). Players' expectations of the game experience are changing. Historically, players desired a challenge as the principle element in a game (Lazzaro 2005, 7). This model worked well, especially in early video games that were often puzzle-based. However, as characters became more integral to games, players wanted to develop more meaningful relationships with them. Players began to ask, and then to expect, that emotional connections to the game world are important to the game experience. In fact, it is more the experience the game creates than the game itself that now captures players' interests (Lazzaro 2005, 1). As players' attitudes shift in this respect, the question of how to create a "heightened emotional experience" (Hazlett 2006, 1023) for the player is becoming a key design goal for many new games. Games that respond to this question are beginning to have more in common with interactive narratives than typical video games. It is through this more narrative medium that game designers find the capability to better communicate with the viewer-user on an emotional level that was previously unattainable in video games. As a result, the rules of narrative and the viewer-user's relationship to emotion vís-a-vís narrative need to be re-evaluated (Louchart et al. 2006, 1).[1]

This new breed of narrative-rich video game experiences affords varying degrees of player participation in the narrative itself. Production company Bioware has created several narrative-rich computer role-playing games (CRPGs), including *Dragon Age: Origins* (2009) and *Mass Effect 2*(2010). These games combine common video game themes (e.g. the ability to absorb multiple wounds without dying, weapon and health upgrades, nameless homogeneous enemies, linear objectives, death without remorse) with the ability to customise characters and make decisions about the direction the narrative takes. As a result, a standard CRPG experience is expanded to afford insight into the psychology and emotions not only of the main character, but of the supporting cast as well. The supporting cast has objectives and ambitions all of its own, and these narrative decisions have specific effects on how the supporting cast responds to the viewer-user (Jørgensen 2010, 315). These narrative decisions

[1] It is not expected that all games should trigger an emotional response in a player. However, a game that elicits a strong emotional reaction is more likely to be considered a good game (Ravaja et al. 2004, 346).

are made during dialogue-heavy cut scenes, during which the viewer-user is not able to interact with the game environment. These choices determine the viewer-user's relationship to other characters, which can either positively or negative affect the outcome of the story. Although core elements of the narrative remain, these games' narratives evolve out of the specific combination of dialogue choices made. The narrative will therefore not be the same for each viewer-user, nor will the experience be the same if the game is played from the beginning again. An important problem inherent in this type of story design is that what the character says in cut-scenes and what the viewer-user has the character do in play scenes can be inconsistent (Jørgensen 2010, 315). This results in an incoherent narrative experience, which jeopardises the viewer-user's ability to emotionally connect with the characters and story.

Extending the interactive narrative model even further are Quantic Dream's *Heavy Rain* (2010) and Rockstar's *L.A. Noire* (2011). These games pit the viewer-user directly in the point-of-view of the main character(s) of the narrative. The viewer-user is still able to navigate the interactive space, but the game is primarily played out in the decisions that the viewer-user makes during conversations with other characters. In the case of *Heavy Rain*, the viewer-user takes on the role of several characters who are involved in solving the mystery of the Origami Killer. Many of the play decisions revolve around how the father of one of the victims (as well as two detectives and a journalist) respond to events in the game. Responses take the form of the types of questions the viewer-user asks, whether interrogations are allowed to proceed forcefully, and how successfully the viewer-user completes a series of fast-paced actions in the game. Characters, including main characters, may die or become sidetracked as a result. This results in a narrative that is more internally consistent than the Bioware examples. A narrative that promotes actions consistent with their consequences has a greater potential for the viewer-user to emotionally connect with the characters. However, *Heavy Rain* still suffers from emotional disconnection when the viewer-user directs the character to move in a fashion inconsistent with a dialogue between characters, or in the amount of time the viewer-user takes to generate a meaningful response to a character or objective.

In *L.A. Noire*, the viewer-user plays the role of a detective during the 1940s. The game involves the viewer-user questioning suspects and witnesses in a variety of crimes, and assessing the truth of their testimonies. Each character is played by a real-life actor, whose performance was captured using motion-tracking and facial-tracking technology. The result is a truly human display of honesty and deception that is left up to the viewer-user to interpret through the characters' expressions and body language. Success in the game is determined by this type of detective work.

Unlike the CRPG examples where the player is frequently pitted into battles with mindless self-same enemies, *Heavy Rain* and *L.A. Noire* primarily focus on the relationships between characters to build the story. As a result, the viewer-user is able to develop a stronger emotional connection with the game experience. These types of narrative experiences give the viewer-user greater levels of control over the outcome of the story. As a result, the notion of 'story' can no longer be thought of as a specific sequence of recounted events that form a plot. In interactive narratives, the viewer-user becomes a partial author to the story. This reconfiguration of the role that

story plays between text and audience is unprecedented in the history of narrative, and requires us to craft beyond the classic storytelling models of diegesis and mimesis. A story is no longer a tale that is simply recounted or shown, but is also accessible at the level of experience (Louchart et al. 2006, 3-4).

The majority of games offer a restrictive linear experience that grants the player a great deal of control over a limited number of game details, resulting in a consistent and cohesive experience. However, the trend with interactive narratives is to provide the viewer-user with agency over numerous game details. Including the viewer-user as part author creates many possible story outcomes that do not necessarily result in a cohesive narrative experience (Sullivan, Chen & Mateas 2009, 111). However, a cohesive experience is necessary in order for a viewer-user to generate true emotional connections with a narrative's characters.

The result of the prioritisation of direct action in video games is that players do not expect story to be a pervasive game element. Even when cinematic-style cut-scenes occur, players expect that these moments will function as a precursor to further direct action, rather than as an opportunity to expand the narrative (Louchart et al. 2006, 1). These types of video game stories tend to feel myopic as a result, with characters blindly following a prime directive of hacking-and-slashing their way to a final objective.

Still, even though the viewer-user has greater agency over the direction of an interactive narrative, this does not mean that the viewer-user has complete control. In order to maintain some degree of consistency with the overall narrative arc, the viewer-user is not given the ability to respond freely. Instead, whenever a decision needs to be made, the viewer-user is presented with a series of dialogue trees (Jørgensen 2010, 316). A scripted conversation is divided into several opportunities for the viewer-user to "select one of several fixed lines to say from a menu of choices" (Rollings & Adams 2003, 469). Each option triggers a game response that is consistent with the selection. However, by providing the viewer-user with a set number of responses to choose from, this negates a sense of control over the narrative, and undermines the ability for the viewer-user to create a core emotional response.

Emotional responses

Lankoski argues that game characters are capable of producing the same empathic responses in gamers as actors produce for a film audience (2007, 6). Following Smith's understanding of the term from cognitive psychology, *empathy* is the "adoption in a person of the mental states and emotions of some other person" (Smith 1995, 95). Lankoski describes empathy as "the processes that puts ones affects in relation to another's affects" (Lankoski 2007, 6).

By their very nature, emotions are notoriously difficult to define. Ravaja et al. describe emotions as "biologically based action dispositions that have an important role in the determination of behavior" (Ravaja et al. 2004, 339). Scherer differentiates feelings from emotions: a *feeling* is "a single component denoting the subjective experience process," whereas an *emotion* is "the total multi-modal component process" of activity in the central nervous system (Scherer 2005, 699).

For simplicity's sake, this paper will employ the terms *emotion* and *feeling* synonymously. This more accurately represents my understanding of these terms in my experience as an actor. Emotions can be classed according to valence (the degree to which an experience is positive or negative) and arousal (the degree to which the experience excites or calms the affected person). Ravaja et al. define "five affective feeling states" of "fear, anger, pleasant relaxation, joy, and depressive feeling" (Ravaja et al. 2004, 340). These correspond well to the four core emotions in my experience: love, hurt, anger, and fear. *Anger* and *fear* are common to both models, whereas *hurt* corresponds to *depressive feeling*, and *love* corresponds to *joy* and*pleasant relaxation*.

My experience of acting is that in order to feel emotionally connected to a scene, the actor must feel present in the scene. This notion of emotional connection through presence can also be carried over to the game world. Lombard and Ditton define *presence* as "the illusion that a mediated experience is not mediated" (1997). For the viewer-user, feeling *present* in a game is synonymous with feeling immersed in the game. Immersion can take many forms, from the sense of loss of time while playing the game (Ravaja et al. 2004, 341), to the player fully identifying with the game characters and their environments. The feeling of immersion is a critical feature of good games. Games that create a strong sense of immersion are more likely to elicit arousal, attention, and involvement (340). Danny Bilson, a Hollywood screenwriter who recently crossed over to video games, offers what might be considered the common consensus:

> *We'd rather be in it than watching it. [Video games] are escapist entertainment, and it's a deeper escape to be in it and to control it, and to engage with it. (Bilson 2011).*

However, at present, players expect that the feeling of immersion will not be consistent throughout a game (Cheng and Cairns 2005, 1272), and that immersion is often associated with "direct action sequencing" (Louchart et al. 2006, 2).

Problems inhibiting emotional responses from interactive narratives

To be truly immersed at all times – and therefore, to be truly able to make an emotional connection – the player needs to feel that he or she is granted full decision-making control over both storyline and interaction. Historically, games cast the player as either spectator or author. If the player is cast as spectator, a single consistent storyline receives the primary focus and, as a result, interactivity is diminished. If the player is cast as author, then the game's focus shifts toward giving the player interactive control. The result of this is that any notion of story is left up to the imagination of the player (Louchart et al. 2006, 2).

The interactive narrative examples cited above grant the viewer-user the ability to select specific dialogue pathways as a response to conversations in the game. However, even though the viewer-user is given this control, the act of being prompted to make a selection from a list of dialogue options inhibits the feeling of immersion in the experience. In real life, emotional responses occur in the moment as natural psychological reflexes to stimuli. In normal human interactions, we are not

given a list of different emotional pathways to choose from, followed by a lengthy time interval in which to make a selection. In interactive narratives, this type of decision-making process feels false to the viewer-user, especially since a great deal of cognitive effort is being invested to dissect what effect each conversation pathway may have later in the game. Hazlett describes this as "[t]he difficulty in relying on cognitive effort for emotion information" (Hazlett 2006, 1024). The very act of debating which pre-scripted option to select removes the viewer-user from the moment, diminishing the emotional connection that the moment might otherwise serve. All responses must ultimately be transmitted through a handheld controller, further reducing the immediacy and authenticity of a true emotional response.

The viewer-user can experience immersive disruptions for other reasons. As previously mentioned, a film audience recognises that it is captive audience, restricted from actually interacting with the events unfolding onscreen. The film audience is not part of the story or the consequences of its narrative. We acknowledge our helplessness in affecting the story and its characters. There is only one possible linear progression of events: they have been edited so that each scene always transpires for the same length in the same sequence until the film reaches its inevitable conclusion. No matter how much the audience may want that progression or result to change, it cannot. This is the contract between the audience and the film. It is this very lack of responsibility that frees the audience to emotionally participate with the characters. When decisions are no longer within our control, we are simply left to empathise. We acknowledge our humanity throughout our helplessness.

Interactive narratives violate this contract by requiring the viewer-user to assume responsibility for emotional decisions. Unfortunately, by imposing responsibility, interactive narratives inhibit true empathic reactions in the viewer-user. Responsibility implies that the viewer-user has the agency to make decisions in a given situation – in effect, to have control. However, the type of control that interactive narratives present is extraordinarily limited, and therefore feels artificial. The experience only allows the viewer-user to intercede at predetermined moments, regardless of whether the viewer-user would naturally react at other times. This inhibits the sense of immersion. Furthermore, being prompted by dialogue options pre-empts the viewer-user's ability to develop his or her own responses. This restricts a sense of personal connection with the story and characters. Although some dialogue options are often emotionally-rich *on paper*, the act of the viewer-user selecting from predetermined options makes the process feel mechanical.

The deliberate process of assuming responsibility for an emotional decision implies that the choice carries with it meaningful personal implications. Even mundane decisions have the potential to create lasting effects on our lives, for instance: *I'm not going to smile or open my mouth for fear my lunch is still in my teeth. This would embarrass me in front of that person I like. If they saw that, they would laugh and lose respect for me.* The understanding that a decision carries with it lasting consequences is what makes the decision emotionally powerful. The person making the decision has something *at stake* – there is a genuine risk involved, with potentially irrevocable consequences. However, the viewer-user acknowledges that any decisions made for the benefit of the interactive narrative are endogenous – that is, they carry weight only so long as the story is playing out. As soon as the story

finishes (or the game is saved and console is turned off), the viewer-user is aware that he or she will return to a life routine that is unaffected by the choices made in the interactive narrative.[2]

Films are able to keep immersive disruptions at bay so long as the acting is genuine, the cinematography is engaging, the editing is sound, and the technical details fade into the background. We accept the narrative of a film because it can never be any different. What is bookended by the opening and closing frames will always be the same, and the characters' stories can never change. This functions as a metaphor for our own lives, in which we only get one shot at making a decision at any given moment. Once that moment has transpired, it does not return. We write our own stories moment-by-moment, and believe we are sovereign in our choices. Because life cannot be paused or rewound or re-recorded, the consequences of each individual action carries with it tremendous weight.

Interactive narratives are different. The viewer-user's sense of agency is diminished because the interactive narrative provides a specific set of narrow possibilities to choose from. The moment that this choice occurs is prompted by the game, not by the viewer-user. Once a choice is made, this triggers a further subset of choices. This branching structure of options leads to an experience that may superficially give the viewer-user a greater sense of control, but at the core emotional level feels disingenuous. Furthermore, decisions made in interactive narratives do not approximate the weight of real-life decisions in terms of triggering core emotional responses. This has nothing to do with the fact that the virtual characters are not *real* (which would be to imply that the characters in films are any more real).[3] Instead, it is the knowledge that the game could always be started from the beginning again, resulting in a different outcome. The decisions made by the viewer-user therefore carry no lasting impact on the lives of the characters. There is no true risk involved, and without risk, the viewer-user does not have anything at stake. This is a key problem in granting responsibility for emotional decisions to a viewer-user. Immersion that results in true emotional connectedness therefore requires either no audience participation, or full agency from a viewer-user. Anything in-between feels contrived, resulting in emotional displacement.

However, giving the viewer-user full agency can wreak havoc on the coherency of an interactive narrative. By its very nature, a narrative implies that a story is told. A story (generally-speaking) has a definitive beginning, middle, and end. If the outcome of the story is left up to the viewer-user, then there can be no guarantee about what

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[2] One potential solution for this might be that the viewer-user could accidentally die as the result of some action(s). Once the viewer-user dies, the interactive narrative could not be played again. Alternatively, once the game is finished, it cannot be played again. The decisions made by the viewer-user become permanent, and therefore more is at stake. Like real-life, the game cannot be played over to achieve a different outcome. Of course, this is unlikely to be a viable business model for games companies.

[3] However, characters whose faces look like stone when engaging with emotionally-rich situations are disruptive at the level of the Uncanny Valley (Mori 1970). Fortunately, this is primarily a technological limitation, and games like L.A. Noire are on path to overcoming this issue.

type of story will unfold. Does the viewer-user assume the role of a hero or a villain? What is the viewer-user to learn or to experience by playing the game? How does the viewer-user know if he or she is succeeding or failing? How is it possible to determine an end to the story? This type of full freedom over the story displaces the viewer-user, as well. With limited agency, the viewer-user feels an impoverished state of control: the interactive narrative is guiding the outcome too much. With complete agency, the viewer-user feels like he or she is usurping the role of the storyteller. A specific narrative ceases to exist: the narrative is solely the result of whatever experience emerges from the viewer-user engaging with the interactive space. This leads to the question of whether triggering core emotional responses and providing an interactive narrative are incompatible.

In order to tackle the problems that lead to these types of immersive disruptions in interactive narratives, some kind of consistent framework for interactivity needs to exist. Unfortunately, new interactive structures are frequently introduced as a response to (and proof of) technological innovation. This causes the language of interactivity to be constantly rewritten, so that no coherent model exists. David Cage writes:

> *It is very difficult to create an experience merging interactivity and storytelling… It is difficult to invent a language when there is no pen and when a new type of paper is being invented every week (Cage 2006).*

Potential Solutions

The following ideas are presented as options for reconsidering interactive narratives, and do not comprise a complete or cohesive solution to the problems inhibiting emotional responses from these games.

Through her research, Lazzaro concluded that a game is better capable of releasing player emotions if it is challenging, immersive, transformative, and/or social (Lazzaro 2005, 7). Interactive narratives are to varying degrees challenging and immersive. However, their ability to provide a viewer-user with a transformative emotional experience, or to integrate other players into the experience (as in *World of Warcraft* or *Perfect World*) is presently limited to nonexistent. One of the most effective methods for engendering authentic emotional reactions from players is to let them play in groups (Lazarro 2005, 7). However, the emotional responses derived from these experiences are primarily based on the relationships between human players, as opposed to the relationships between a viewer-user and game characters. Group-based play also disrupts the notion of a specific narrative: the narrative instead emerges from the actions of the group, which may conflict with the trajectory of the original story. If the story continues in a particular direction regardless of the actions that viewer-users take, then the viewer-users recognise this inconsistency and become emotionally disengaged. They realise that regardless of what actions they take, the story has a *predestination*. When viewer-users recognise that their actions are essentially meaningless, they lose emotional investment in those actions and instead become simply *viewers*.

Video game players have typically come to expect direct action sequencing as part of the game experience. Players expect that as games become more photorealistic,

direct action will become more common, compelling, and realistic, as well. With such a focus on action, this presents "an obstacle to the development of narratives in [virtual reality] if not dealt with appropriately" (Louchart et al. 2006, 2). Ultimately, direct action is capable of tapping into the core emotions, but it is better at tapping into anger and fear more than love and hurt. Even then, the transmittable dimensions of anger and fear are limited by how banal such experiences are rendered by the ubiquity of similar action narratives. As a result, if interactive narratives continue to focus on direct action, only impoverished subsets of emotions are possible through the medium.

To be truly emotionally-engaging, interactive narratives must be rethought. It is not enough to offer a viewer-user a set of options to choose from, and hope that he or she makes some kind of emotional connection to a specific choice. Emotional participation does not come from simply granting greater agency to the viewer-user, but rather by providing the viewer-user with a cohesive narrative experience that is consistent with the consequences of that agency. The most popular interactive narratives are based on the decision tree model. On the surface this model appears to offer many branching pathways, which organically lead the player down a vast series of repercussions. However, in the end, the number of options is quite limited, especially when we consider that at any one moment the viewer-user is presented with at most four or five pre-scripted pathways. This creates the verisimilitude of choice, but in reality it is still a linear experience, and the viewer-user is aware of this. More sophisticated systems of artificial intelligence may be able to provide the viewer-user with more pathways, and especially pathways that feel less scripted. However, the experience would still need to ensure that the story remains consistent with the viewer-user's actions throughout the narrative.

The dangers of opening an interactive narrative to full viewer-user control have already been discussed. However, control is necessary in order for the viewer-user to feel emotionally-connected to the interactive narrative. A drama manager (DM) has been proposed as a potential solution to the dilemma of creating either a restrictive linear experience, or an incoherent open experience; "A DM monitors an interactive experience, such as a computer game, and intervenes to shape the global experience so that it satisfies the author's expressive goals without decreasing a player's interactive agency" (Sullivan, Chen & Mateas 2009, 111). A story plan exists, but the viewer-user is not guided down a pre-scripted path of narrow options. Instead, the story is constructed out of the actions the viewer-user takes organically, and the DM monitors these decisions. If the viewer-user starts to make many decisions that would conflict with predetermined story goals (or embarks on tangential goals), the game's architecture adapts to re-plan or prevent that action. This produces a dynamic plot that allows for full viewer-user participation, while retaining a coherent narrative goal (Sullivan, Chen & Mateas 2009, 112).[4] This opens

[4] This type of structure already exists in role-playing games like Dungeons and Dragons. A dungeon master (also abbreviated "DM") constructs an imaginary experience for the game's players. The DM functions as both storyteller and referee, ensuring that players are consistently and properly rewarded (or punished) for the play decisions they make. However,

the possibility that a specific narrative can be retained if a DM can dissuade the viewer-user from taking particular actions. However, the viewer-user would need to feel that this dissuasion was their own choice, rather than an imposition by the game itself. If the viewer-user decides to continue along a problematic pathway, then the DM may up the consequences associated with that action until the viewer-user relents. So long as the viewer-user feels that relenting is their own choice, then the narrative experience remains cohesive and consistent, and emotional participation is left intact.

The question that has emerged throughout this paper is whether it is possible to tell a specific interactive narrative and emotionally engage viewer-users participating in it. The answer is: potentially yes, but not yet. Ultimately, in order to provide the necessary foundation to produce core emotional responses from viewer-users, interactive narratives need to be mediated through emergent systems. This requires more robust artificial intelligence to evaluate and adapt to player decisions while retaining varying degrees of plot conformity. Without consistency and coherency in a narrative (and especially as the result of player actions that may fall outside of the intended storyline), players lose their sense of immersion in the narrative and become emotionally disconnected from the experience.

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the players are given great degrees of control in terms of how they explore and interact with the imaginary environment.

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The Journal of Creative Technologies (JCT)
Issue 2: Digital Storytelling, 2012

ISSN: 2230-2115

Colab, Auckland University of Technology, New Zealand

JCT is a research communication platform published by Colab at the Faculty of Design and Creative Technologies, Auckland University of Technology.
https://ctechjournal.aut.ac.nz