

# **Playable Stories**

**Writing and Design Methods that Negotiate Narrative and Player Agency**

Volume 2 of 2

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Signature: .....

## **Epigraph**

“The fact that we can’t get the vocab right proves that we’re in the age of the horseless carriage” – Punchdrunk Founder, Felix Barrett (McConnachie, 2015)

## **Thesis Introduction**

At the outset of this creative practice PhD in 2010, the aim was to create a work of fiction that exploited the narrative possibilities of digital media. The intention was to explore the artistic and commercial opportunities of the form and develop a fiction that delivered dramatic tension and player agency. What it would be called—digital fiction, narrative game, interactive novel, electronic literature, playable story—was an open question since the boundaries between those fields were blurred and evolving. As a humanities postgraduate and writer based in a creative writing department, the research interests were located firmly in narratology—ways to write and create engaging story experiences that took account of digital systems and how players use them. The research question was how to preserve the empowerment of players through agency and maintain the dramatic tension of an authored fiction. How could narrative and player agency compliment one another and form and content work together to create meaning, and then how could this knowledge be useful to other writers and creative practitioners in the field? What started as a focus on digital expanded into consideration of, and comparison with, a wider range of interactive work—particularly pervasive gaming, immersive theatre and transmedia—to understand how learning on combining story and player agency in these fields could be applied to digital projects.

This thesis offers three contributions to knowledge. The first is a theoretical framework for understanding the narrative and player agency outcomes of a range of different writing methods and decisions in playable stories. This includes four new terms built on established narratological theory: (1) *dynamic syuzhet*; (2) *authored fabula*; (3) *improvised fabula*; and (4) *fixed syuzhet*. These are formulated to help writers make structural decisions and understand their impact on story and player agency. The framework also offers a challenge to the dominant view in the field of interactive storytelling that the ‘holodeck’ vision of a digital simulation players can enter and have adapt around them as protagonists of the story is the most desirable future of the form. The science fiction thriller TV series *Westworld* (2016) represents that futuristic ‘idyll’ in its Western-themed holiday amusement park populated by robots indistinguishable from real humans. This thesis takes an alternate and pragmatic approach, arguing instead that putting players at the centre of the experience, rather than at the centre of the story, can be a

more effective combination of narrative and player agency in digital playable stories. The second contribution comes in the form of a comparative close analysis of a range of playable stories and a series of primary interviews with practitioners in the field on their writing and design methods. This provides practical knowledge from an artistic and commercial perspective, helping to capture a moment in the evolution of the art form that is useful to others working in it. The third contribution is in the form of the creative project, *Underland*; an original playable story which applies the research outlined in the critical essay, demonstrates a new use of dramatic irony unique to the playable story form, and involved developing a way to prototype gameplay and game writing without using elaborate coding or animations. This innovation has potential applications in academic research into interactive narrative and in the commercial world of video games and digital media.

Janet Murray's influential book *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* proposed that one future of digital narrative would be the *Star Trek* holodeck, "an illusory world that can be stopped, started, or turned off at will but that looks and behaves like the actual world [...] a universal fantasy machine, open to individual programming: a vision of the computer as a kind of storytelling genie in the lamp" (1997: 15). In *Star Trek*, crew members use the holodeck to enter simulated worlds and participate in stories that change around them in response to their actions. Murray proposed many alternative forms of digital narrative but the holodeck became the most prominent vision and aspiration. She argued:

The most ambitious promise of the new narrative medium is its potential for telling stories about whole systems. The format that most fully exploits the properties of digital environments is not the hypertext or the fighting game but the simulation: the virtual world full of interrelated entities, a world we can enter, manipulate, and observe in process (1997: 280).

The concept of the holodeck has been widely adopted in the field of interactive storytelling as a digital form which puts players at the centre of a narrative that responds authentically to their actions.<sup>1</sup> This is evident in the predominant characterisation of players as story protagonists in video games; the volume of research into how Artificial Intelligence (AI) can shape worlds around players at places like the Institute for Creative Technologies at USC and The Centre for Games and Playable Media at UC Santa Cruz; and the citation of AI-driven, one-act, interactive drama *Façade* (2005), where the

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<sup>1</sup> Murray was not arguing that the holodeck form must make the story about players but it has most often been approached that way.

story of a marriage unfolds around player behaviour, as the “one piece of software that we can all agree comprises genuine interactive storytelling” 10 years later at the 8th International Conference of Interactive Digital Storytelling (ICIDS) 2015 (Crawford, 2015).<sup>2</sup> This thesis questions the AI-focused vision of the holodeck as the “genuine” expression of interactive storytelling and makes the case that, in digital work, a combination of narrative and agency can be more effective when creators make the decision to put players at the centre of the story experience, rather than at the centre of the story itself. In caveat, it recognises that this claim is relevant to the current technological climate and limits of Artificial Intelligence. The finding is a result of approaching the subject through the lens of creative writing and with the objective of being a practical aid to contemporary writers working in the field. It acknowledges its own limitations in research ability by not approaching the question as a technologist and recognises that the fields of Human Computer Interaction and AI continue to evolve. The argument would need revisiting if the central challenge of AI-complete is surmounted and computers achieve the seamless simulation of human consciousness. Despite its urge to move away from the focus on the holodeck, this thesis seeks to build on Murray’s narratological approach to the form which argued for putting the storyteller, not just the computer scientist, at the centre of the development of the art (1997: 284).

Having worked in local, national and international newspaper journalism from 2004 to 2010 during the transition from print to digital, and observed and experimented with the different ways stories could be told and experienced—expanding the affordances beyond text and image to video, audio, hyperlinks, comment threads, social media and converged packages—the aim was to research and investigate a similar transition in fiction. In journalism, digital media changed relationships with readers, enabling instant feedback, information and opinion, and providing opportunities for audience collaboration and user-generated content. Publishers were no longer the final arbiters of what was newsworthy, or the authority on content or public opinion, readers had an opportunity to be empowered, to produce content and select what they consumed; it was changing the way journalism was done in positive and negative ways (Viner, 2016). Questions around the effect of this shift from a passive to an active audience, and how to adapt to it, were being (and continue to be) posed across the creative industries, including in book publishing, filmmaking, game development, theatre, TV and radio production. This PhD set out to investigate the issue and contribute knowledge about how audience agency im-

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<sup>2</sup> ICIDS is an annual gathering of academic and industry experts in interactive storytelling.

pacts the dramatic art of fiction, what challenges and opportunities it offers, and what writing methods are effective and why.

The passive audience, sitting in the dark of the cinema or auditorium, watching from the sofa, or turning pages without impact on narrative structure or representation, is a relatively recent phenomena. Theorists have located the roots of dramatic performance in primitive rituals, dances and games where spectators took part as players and actors, dissolving the distinction between audience and performer (Turner, 1998; Schechner, 1993; North, forthcoming 2017). These rituals were mimetic, playing out aspects of life from hunting to death to sex and insisting everyone take part. Bounding the rituals with music, dance, drugs, and other frames, enabled participants to be themselves but different, moving through and experiencing other ways of being. More modern dramatic arts—novels, theatre, film and TV—have separated the audience and actors in the fiction, offering the audience a more passive role as consumers of content. North (forthcoming 2017) charts how this separation of audience and representation inspired the cultivation of new dramatic techniques to generate empathy and engagement and make an audience feel *as if* they were still in the drama themselves. Technological invention, from the printing press to the film camera to the television enabled that dramatic content to be captured, copied and distributed widely, contributing to the growth of cultural industries, their dominant expressive forms and the dramatic techniques used to maintain audience attention. The advent of digital consumer technologies, like the commercialised internet in 1995 and the introduction of the iPhone in 2007, saw another paradigm shift in the role of the audience. The audience moved centre stage again, with the digital tools to produce, curate and respond to content in their pockets.

Catering for an audience that had emerged from the dark and silence and become accustomed to dynamic media that, like earlier ritual forms, recognised their presence and offered agency in the experience, raised new design challenges and questions. In narrative art, the central question of how to integrate player agency with authored narrative frameworks meant asking how to use the form to its advantage, as well as considering how to adapt and evolve established dramatic techniques like mystery, suspense and dramatic irony (and create new ones) to achieve the narrative power of other mediums and tap into a gigantic market. How the various narratological techniques recognised as means to maintain audience attention could be applied to digital fiction was of central concern to this thesis. In addition to mystery, suspense and dramatic irony, those investigated include: the use of narrative perspective; the structuring of plot beats, scenes, sequences, changes and revelations; the frames of chapters, episodes and acts; charac-

terisation through wants, needs, desires, flaws, archetypes and values. The active audience question was also approached from the opposite direction, in terms of how interactivity and agency impacts on the structuring and experience of narrative in relation to choice, customisation and non-linearity. What emerged was an understanding that those narratological techniques still hold true when applied to the construction of story but that, whereas in traditional storytelling dramatic tension exists in how the story is told, in interactive work there is another layer of dramatic tension in how the story is experienced: the *experiential narrative* created by the event of play.

Debate in the field of interactive storytelling has been dominated by the ‘problem’ of the *interactive paradox*—the perceived tension between narrative design and player freedom. In 2004, Aylett and Louchart formulated it as such:

The contradiction between authorship and participation is an important element of the narrative paradox [...] On the one hand an author seeks control over the direction of a narrative in order to give it a satisfying structure. On the other hand a participating user demands the autonomy to act and react without explicit authorial constraints (Aylett and Louchart, 2004: 25).

In the paradox, classical narrative is equated with a fixed and authorially controlled structure, interactivity with player freedom, and the two are considered mutually exclusive. This thesis challenges the idea that narrative is always fixed and that agency and ‘freedom’ are equivalent. It takes issue with the idea that authors and players are in opposition to one another, each seeking control over the outcome of a story. Instead, understanding of the dynamic between authors and players is anchored in a Bourdieusian conception of the interrelationship between agent and structure, where each influences and responds to the other (Bourdieu, 1977). Moving beyond the polarisation of narrative and player agency, which has also dominated the narratology vs ludology debate, this thesis focuses on methods of bringing them into dialogue and collaboration. Through creative practice research, the aim was to understand the artistic possibilities of combining player agency with story and the commercial potential of these narrative forms.

Ryan’s (2007, 2015a) categorisation of the “split condition” of digital narrative into *The North Pole* (the home of experimental literature), the *Tropics* (the home of popular culture), and the *Temperate Zone* between (the home of ‘serious’ literary authors), is a useful theoretical framework for understanding the differences between genres and to help establish the kind of work this practice research was aiming to make and capable of producing. *The North Pole* is described as the “aggressively avant-garde” end of the



spectrum where hypertext, code poetry and other, often theory-based, experiments in digital literature sit (Ryan, 2015a). These works are aligned with conceptual art and more concerned with experimental postmodernism, computational text generation and playing with signifiers than with storytelling. These are works recognised by the Electronic Literature Organisation, a movement founded in 1999, and publisher of three volumes of works in 2006, 2011 and 2016, but that have not gained commercial traction, more often emerging out of academic departments. This zone is often considered the risky and non-commercial end of the spectrum. The *Tropics* is described as the “mass entertainment” end of the spectrum where AAA video games and viral social media narratives sit (Ryan, 2007). These works feature genre fiction and linear storytelling, popular and shareable content. They often immerse a player in roleplaying and expansive 3D worlds and are supported by big budgets, large development teams and the latest technologies. This zone is often considered the risk-averse and highly profitable end of the spectrum. Ryan argues that digital narrative has largely been restricted to these extremes and that between them lies the “unconquered” *Temperate Zone*, which merges qualities from both ends of the spectrum to be more user-friendly than *The North Pole* and more narratively interesting than the *Tropics*, for those who enjoy both formal experimentation and story (2007, 2015a). In a comparable breakdown of film, avant-garde artist films would occupy *The North Pole*, Hollywood Blockbusters the *Tropics* and Indiewood titles the *Temperate Zone*. Ryan claims:

[R]eaders of the Temperate Zone [of digital fiction] do not regard programming virtuosity as a self-fulfilling activity and a guarantee of artistic merit. They value artistic innovation, but they do not think that innovation requires the dismantling of narrative, because developing narratives that take advantage of the properties of the medium is in itself a major artistic innovation over print literature, drama and movies (2007: 15).

The aim of this research was to create a work that would be located in this *Temperate Zone* where narrative and player agency merge to support meaning and where innovation and commercial potential could be matched. This was driven by an investigation of the field through the lens of creative writing, rather than through computer programming, in order to contribute knowledge on the role of writers in the field and ways to develop a sustainable practice.

This thesis is defined by the interplay between: (a) academic research leading to new understandings about creative practice, and (b) creative work as a basis through

which to advance academic knowledge about practice. It uses a five-part methodology to achieve its contribution to knowledge:

- (1) Secondary research into the academic and theoretical context of negotiating narrative and player agency in order to locate the roles of writers within it, identify the writing methods in use and understand the challenges, constraints and opportunities of approaching this field through the lens of creative writing;
- (2) Qualitative analysis of relevant creative works from video and street games to interactive and immersive theatre, electronic literature to pervasive games, and non-linear films to transmedia, to survey and categorise the writing and design methods and affects, and identify useful approaches for writers;
- (3) Primary research via interviews with selected writers and practitioners of the creative works analysed in (2) to gain insight into their creative practices and processes, particularly in relation to writing and design decisions and their own perspectives on negotiating narrative and player agency. This was a means of accessing the most recent knowledge, since the contemporaneous nature of the subject has seen many innovations in approaches in the past six years of study;
- (4) The development of my own practice and works as a means to test research into various methods of combining narrative and player agency and experiment with new approaches. Most central to this was the creation of a video game script prototype for the playable story *Underland* as a means to explore, research, develop and test this thesis. Other works included alternate reality game (ARG) *Zoetrap* (2011); live-digital hybrid game *Resurgam: The Lost Pearl of Plymouth* (2013); interactive theatre show *The Hallowed* (2013), with Rogue Theatre; location-based experience *The Art of Getting Lost* (2015); devising and performing in *Short Changed* (2016); performing in *Walk, Hands, Eyes (a city)* (2016); and the forthcoming multi-locational interactive theatre game *Press Go* (2017);
- (5) The creation of a theoretical framework writers can use to guide themselves on the narrative and player agency affects of particular methods and decisions.

As a creative practice PhD this thesis has two components:

- (1) A creative project in the form of an interactive script prototype for the playable story *Underland*.

- (2) An academic commentary which articulates the creative work and establishes why and how it contributes new knowledge to the field.

The question of how to present the creative project was complex. A challenge for writers of interactive works is the lack of an established script format for the medium, particularly one that can represent the *experiential narrative* of the player journey. This is evidenced by a live debate in the video game industry that has seen writers call for the development of a universal tool or format similar to those that exist in film scriptwriting (Francis, 2015). Many games companies have in-house proprietary tools designed for their styles of game but, as the interviews with practitioners for this thesis revealed, often writers script in a mix of Final Draft screenplay software, Excel files, Word and Google Docs (Barlow, 2015b; Evans, 2015; Pratchett, 2015; and Pinchbeck, 2015b). The fragmented nature of the scripts can make it difficult to gain a cohesive understanding of how the game will work from the written documentation in the way that you can from a screenplay or theatre play script. Blizzard is an example of a games company that is attempting to improve its in-house scripting tools and methods to communicate story more effectively, especially for the benefit of actors (Figure 12: Toyias and Baker, 2016); but in the current climate, where there are many freelance game writers based outside games companies, there is not yet a culture of script pitching to publishers, or a speculative script industry like there is in film. As a result there is not an adopted presentational format.

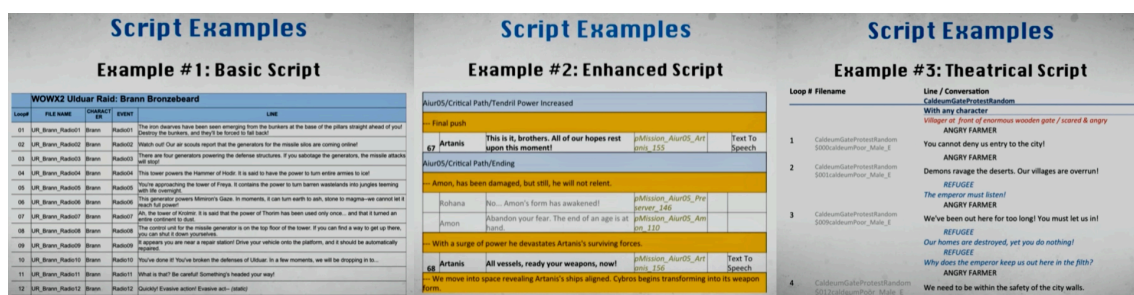


Figure 12: Examples of Blizzard Entertainment Inc. script formats (Toyias and Baker, 2016)

Practitioner interviews revealed that the lack of a script format was a consequence of the economics of the video game industry, the place of writers within it and the requirements of the work (Barlow, 2015b; Evans, 2015; Pratchett, 2015; and Pinchbeck, 2015b). Barlow argued that commercial priorities mean games go into production on an outline rather than a completed script (like films) so visuals can get drawn and designers

can start building game levels. Dialogue will then be written when the level is locked and just before the motion capture is shot. He said money is often not invested in the upfront effort of developing character and story with it instead “being ad-libbed as the thing develops” because companies do not want to add extra time onto the 3–5 years it already takes to make a game, especially if publishing a game a year (Barlow, 2015b). He added that many employers still think the effort of writing is the dialogue on the page, rather than time spent developing character motivations, structure and plot, or the development of story and game mechanics in tandem. He said this lack of recognition impacts on the quality of storytelling and the role of writers in games. Pratchett was the game writer to coin the term ‘narrative paramedic’ as an ironic nod to her view that the games industry brought writers in too late in the process in an emergency operation to patch up bad story or stitch together characterisation and dialogue to fit the game design, and that this was a contributing factor in the lack of narrative maturity in the art. She said often “they’ll push a box of narrative body parts across the table to you and say ‘right, assemble a story from this,’” (Pratchett, 2015). Her experience as lead writer of the *Tomb Raider* (2013) reboot was very different. The narrative team at Crystal Dynamics broke new ground and developed new processes to encourage the entire game development team to have a stake in story from the earliest point (Pratchett, 2015 and Pratchett et al., 2016). Pratchett said:

People other than the writers and narrative designers need to be invested in the story. For me that’s what game storytelling needs to be about, it needs to be a team effort, it’s not just the narrative team, we need to spread more awareness that everything contributes to the story (2015).

For *Rise of the Tomb Raider* (2015), the team developed a collaborative, 8-step process to ensure everything in the world and everyone on the team supported the role of story:

- 1) High Concept; where the controlling idea and key value at stake was decided. For that game it was about the forging of Lara Croft’s identity: “We become who we are meant to be when we let go of who we are supposed to be.”
- 2) The Treatment; where the character arcs, wants, needs and how they clashed in the plot were put together in a skeleton script.
- 3) Metascripting; the first place narrative and gameplay shook hands and written in terms of what the player would experience in each scene. This content was hash-

tagged to help the team track pacing and the prevalence of characters across the game and deal with any issues. These documents then became the roadmap for the script.

- 4) The Script; which was written like a movie script and used for a table read so the actors could give feedback.
- 5) Supporting Narrative; which treated the world as a character and made sure all environments, non-player character (NPC) dialogue and artefacts supported the main story and there was an internal consistency and logic to the world.
- 6) Words to Pictures; throughout the process of developing the story a Story Artist was used to create animated storyboards (mini-movies) that could be shown to designers and artists so they could see what the narrative team was imagining. It was also a way to continually test the narrative.
- 7) Feedback and Iteration; which involved weekly playtesting to make sure the story was delivering an emotional impact.
- 8) Performance; the script was locked by this stage, after a long and agile development process that had ensured story was considered throughout, rather than left to the point where it becomes expensive and tough to change.

This 8-step process is in stark contrast to what Barlow described, and what Pratchett has also previously experienced (Barlow, 2015b; Pratchett, 2015). It shows that bridging the gap between words on the page and narrative gameplay on screen required constant communication between the story team, artists, designers and programmers to reach a common goal. It also shows how cinematic techniques for developing character and plot were used. Pratchett said that the visualisation of sections of the script in animated storyboards was an essential and affordable way to communicate to members of the team how it would work in gameplay to deliver the *experiential narrative* (2015). Pratchett was working in a large team on an AAA title but Pinchbeck (2015b) had a similar perspective on writing and making a game simultaneously and iteratively from his experience running independent studio The Chinese Room and making *Everybody's Gone To The Rapture* (2015). He argued that in order to understand and pitch a game you need a prototype to play so you can access how it will feel for a player, particularly in terms of pacing and representing the architecture of the experience. He said: "To me it's something that can only be achieved with dialogue and a close relationship with those leading the realisation of the product rather than defined by a [writing] tool" (2015b).

This challenge of how to represent the *experiential narrative* is central to writing for playable stories. Filmmaker James Cameron and theme park designer Adam Bezark wrote from the experiential point-of-view of the audience in the script for the Terminator attraction at Universal Studios: *Terminator 2: 3-D Battle Across Time* (1995). They started with the audience walking up to the building and into the queue, used phrases like “we see” and “addresses us,” as well as suggesting how people should feel (e.g. claustrophobic) to guide its realisation. The attraction was immersive and cinematic with three different locations (queue, pre-show auditorium, main theatre). In parts it was augmented, with water sprinkled over the audience and seats lurching for example, but fundamentally the audience was passively consuming the same content, meaning the script did not have to branch off into alternate possibilities. The Belgian theatre company Ontroerend Goed calls its scripts “Blueprints,” writes the player role under headings like “Visitor” or “Avatar” that articulate what it hopes the player will think, feel and do; for example, “I’m being pulled away. He’s still holding my hands. I don’t want to let go” (2014: 29). Writer of the first version of the zombie apocalypse street game *2.8 Hours Later* (2010), Hazel Grian, approached the question differently and described the process as inviting players into scenarios and then managing their reactions (2015). She said:

You were always writing in the player and asking what are they going to do when they get there? So writing in the audience as a character in the story [...] It was asking, what kind of characters they would meet? What could they be used for? What kind of experience would they build up? Really playing on emotions so you’re drawn into wanting to be with a character, to stay and help them and then being repelled (2015).

*2.8 Hours Later* co-creator, Simon Evans, echoed this in his description of creating “scenarios of possibility” adding “it is like theatre, but players are characters who you can’t control” (2015). Evans developed strategies with the various writers of *2.8* to consider “what door do they [players] come in through and what door do they come out, physically and conceptually.” He distilled this into a concept he calls “the choreography of knowledge”—what people know, how they come to know it, and what they need to do next, as the best way to frame *experiential narratives*. He said: “That becomes the yardstick we can measure everything against in terms of player agency.” *2.8 Hours Later* was a live playable story so actors could improvise to the specifics of players in a way that digital technology struggles to because of the need for pre-programming. In live and digital playable stories the social contract is also different, players are usually

constrained by the rules of appropriate behaviour. As experience designer Sofi Lee-Henson said:

Because you're looking the person in the eye, you know they're not a non-playable character (NPC). It's real, you're going to react and they react to your cues. You can sense it with all of your senses. You're in it, there's more of a barrier than if you're playing a video game (2015).

This can make players more malleable than in a digital experience where the lack of 'real life' consequence can make them more anarchic, testing the boundaries of play to see if an experience will react to them. I took into consideration these approaches and insights, my own limits and constraints and the context of the industry when deciding on the best way to write and present the creative project for this thesis.

Writing and building *Underland* simultaneously was not an option because of my own limited programming and visual design skills and lack of budget. Despite that, this thesis was also interested in investigating the case for a speculative script industry for writers of playable stories. Video game designer, producer and professor of game design Robin Hunicke has made the case that breaking down the millions of pounds spent on one video game title into smaller chunks, for a wider range of teams, would create more diversity of product (Folkman M. and N, 2015b). Upfront finance for writers and writing teams to develop playable story ideas to a point where they are ready to go straight into production might also create more diversity and be more financially efficient? That would require clarity in the presentation of the idea to enable its vision to be imaginable. That question, of what format it would take for a writer to be able to pitch a playable story to a game or book publisher (or a partnership between the two), so different sides of the creative industries could see how it would work, was of interest to this research since an aim was to investigate the commercial opportunities for writers. The decision was to present the project as an interactive script prototype which can be found at [underlandgame.com](http://underlandgame.com). The format presents the script as the game is intended to be experienced. Rather than writing in the *experiential narrative*, it allows an approximation of its feeling as players interact with content. The bespoke format draws on the conventions of screenwriting but has its own markup language adapted from the classifications of environmental storytelling formulated by Jenkins in his seminal 2004 essay 'Game Design as Narrative Architecture.' Jenkins argued that "game designers don't simply tell stories; they design worlds and sculpt spaces" in which players move around (121). He identified four ways environmental storytelling is used:

- (1) Evocative Spaces; the creation of a physical or virtual space that draws on stories or genre traditions that are already well known to help orientate, guide and subvert player expectations. An example would be a haunted house setting.
- (2) Enacted Stories; the real-time performance of narrative events by players, generally in the form of “localized incidents” or what Jenkins terms “micronarratives.”
- (3) Embedded Narratives; the authored narrative that is embedded in the game space waiting to be unlocked and deciphered as the player reconstructs it. Often found in the form of audio logs and character possessions that reference past events.
- (4) Emergent Narratives; not preprogrammed but taking shape through the gameplay.

These classifications were a useful starting point for developing a series of headings to mark the script up with the type of narrative being used: *Environmental narrative* was chosen as a more fitting heading than *evocative* since it refers to the space a player moves through. *Evocative* was considered too ethereal as a script term, and suggestive of what exists in a player’s mind, which is impossible to write. The term *environmental narrative* also incorporates objects that can be examined by players to reveal story detail but that are not considered *epistolary narrative*. *Enacted narrative* was used for any real-time sequences, whether witnessed or performed by players. *Embedded narrative* was used for any scene bursts from the past or information that can be found or unlocked in the story space. *Epistolary narrative* was used for content in the form of messages, emails, diary entries, newspaper cuttings, notebooks, photos, videos, maps, voicemails, etc. The print version of the script is assembled and presented linearly, though it is designed to be a non-linear experience. The online script prototype is an answer to the question of what the experience will feel like for a player so investors and collaborators can see how the mechanics and non-linearity work. It is a digital representation of the script that is closer to how it would work as a published fiction. Both print script and online prototype are framed by a cold open and a concluding sequence (both *enacted* segments), but the content between those bookends can be read in any order. The prototype is not powered by a game engine so it does not do some of the jobs the final game would (show time passing, mark story assets as *seen*, offer a search function or gate the final scene, for example). However, the script is clearly illustrated to explain how those functions would work so they are easy to imagine.

The academic commentary section of this thesis is presented as three chapters.

## **Chapter 1: Defining the Field of Playable Stories: Challenges and Opportunities**



**for Writers and Creators**, defines the key terms for understanding the contributions of the thesis and conducts a survey of the academic and theoretical debate around negotiating narrative and player agency to identify the challenges and opportunities from the perspective of creative writing. Out of that it begins to build a case for which combinations of story structure and player role negotiate the delivery of narrative impact and player agency. **Chapter 2: A Close Analysis of Existing Writing and Design Practices, Methods and Interactive Modes in Playable Stories**, is a qualitative analysis of existing techniques in the field. This features primary interviews with practitioners about their writing and development processes. The texts selected for comparative analysis are those most relevant to the creative proposal of this thesis and feature video games, street games, immersive theatre, interactive theatre, transmedia, experimental literature, and my own projects and collaborations to demonstrate the evolution of my creative practice during the process of research. The texts were selected for their critical reception, their commercial success, their status as innovations in form and a personal assessment of their effectiveness in reaching goals that are helpful to this thesis in terms of how to deliver a satisfying experience of story and agency. The close analysis breaks each text down according to its writing and design methods, drawing conclusions and lessons from each. The selection of texts led to the selection of practitioners as interviewees and the priority was to interview those whose work most informed this creative project. The interviews have been woven into the commentary throughout and all interviews were recorded. This combination of close analysis, interviews and reflection enabled the application of a series of lessons and insights to the development of *Underland* as a playable story. As the thesis developed it became clear that the most significant influences on practice were drawn from gaming and theatre and that different methods in each sphere could be applied to the other. **Chapter 3: The Development of *Underland* as a Playable Story**, charts the development of *Underland* from the seed of an idea to a fully realised video game script prototype. It analyses the intertexts and influences and how the research phase helped to develop the idea. It explores how the story was developed narratologically by drawing on expertise in screenwriting and the adaptation of that approach to interactivity. It also explores the various proposals in relation to form, from transmedia fiction to iterations of video game, analysing why some approaches were considered inadequate. It then breaks down the creative decisions made in the final version that were informed by the findings from Chapter 1 and 2. The conclusion reviews the practice research, its context, limits, impact, contribution and recommendations for application and future research work.

**Defining the Field of Playable Stories: Challenges and Opportunities for Writers and Creators**

There have been many studies of narrative in playable stories but this thesis takes a new approach to the field through the discipline and practice of creative writing. Academic analysis has considered the operation of narrative devices to negotiate player agency but there are gaps in the literature related to their *execution* as a practitioner. Pinchbeck's (2009) thesis is notable as the first qualitative analysis of video game content across a representative sample of the genre. This thesis takes a similar approach but also applies the findings to creative writing practice. In addition, it uses insights gained from primary interviews with practitioners to gain a practical understanding of the challenges and opportunities for writers and creators in the field. There are texts on how to write for interactive formats including video games and transmedia (Bateman, 2007; Despain, 2008; Heussner, T., et al., 2015; Miller, 2008; Skolnick, 2014; Suckling and Walton, 2012); exactly as there are many texts on screen and novel writing technique (King, 2000; McKee, 1999; Spring and King, 2012; Snyder, 2005; Truby, 2007). These tend to feature industry-focused advice on established modes of storytelling in interactive form and can be formulaic. This thesis challenges some of those established modes of writing for interactivity and uses its interviews to help reflect the current, and rapidly evolving, climate. The field of playable stories is a contested space of challenges and opportunities. Practitioners, publishers, investors, producers, academics and audiences are all collaborating and competing to understand exactly how this form of storytelling works. It is not unusual to find competing definitions of related terminology, with experts disagreeing on what defines each term. This chapter explores the debate and defines key terms to help readers navigate its understanding of combining story and player agency. It asks how narratological theory applies—and can be adapted—to playable stories to offer a new theoretical framework for negotiating narrative and player agency that can be proved in practice. That framework is informed by the academic and creative work that precedes it. This chapter reviews that context and how it is being approached through the discipline of creative writing. Later chapters flesh out the framework to explore how it informed the creative project of this PhD and its use to other writers.

A good starting point for discussion of the use of narrative in playable stories are the tricky-to-unravel distinctions between narrative, story and plot. Fludernik (2009)

provides a useful breakdown using narratologist Gérard Genette's distinction between the three meanings of the French word *récit* (narrative). Genette separates *narration* (the narrative act of the narrator), *discours* (narrative as text or utterance) and *histoire* (the story the narrator tells in his or her narrative) (Fludernik, 2009: 2). The first two—the narrative act and its product—are grouped together as *narrative discourse* leaving the *story* as “that which the narrative discourse reports, represents or signifies” (Fludernik, 2009: 2). This distinction helps account for the fact that the same story can be told in many different ways. The story is the raw material and the narrative is how it is told by the narrator(s) and the form. In his collection of essays *Aspects of the Novel*, originally published in 1927, E.M. Forster made a famous and useful distinction between story and plot when he said: “‘The king died and then the queen died,’ is a story. ‘The king died, and then the queen died of grief,’ is a plot. The time-sequence is preserved, but the sense of causality overshadows it” (Forster, 2016). For Forster, story is a chronological sequence of events and plot adds cause-and-effect to that sequence; plot tells us *why* the narrated events of the story happened. This breakdown of story as the *what*, narrative as the *how*, and plot as the *why* is a useful shorthand for understanding the distinctions between terms. As Cobley (2005) puts it, *story* comprises “all the events that take place in a narrative”; *plot* comprises the “underlying causality that binds these events together and demands that some events be narrated and not others”; and narrative is “how all these events with underlying causality are narrated”—in what sequence, through which devices, and with what kind of narrational voice. Applying these definitions to an existing playable story will make it easier to understand their use throughout this thesis.

*Her Story* (2015) is a video game where players get access to a 1990s police database with an archive of video interview clips of identical twins answering questions relating to a murder. The game mechanic is a simple emulation of Googling; to uncover what happened players enter keywords into a search field and return tagged clips. In this case, the story is the chronological sequence of events that lead up to the murder, as revealed in the interviews, and also the chronological sequence of interviews, which lead to uncovering the truth. The plot is the chains of cause-and-effect within that story that link events together. This is revealed by the content of the interviews. The narrative is the most complex aspect in this example as it is both how the story and plot are presented and how the player experiences them. The frame of the police database is a narrative device, as is the style of the video clips, how the characters are represented and how they answer inferred police questions. The player's *experiential* journey uncovering the story is also a narrative device, and a dynamic one since players uncover clips in differ-

ent sequences according to their own choice of keywords. In addition, as the game progresses, a reflection flickers on players' screens. This is revealed, via an in-game chat tool, to be the daughter of one of the women. That reflection and chat tool are narrative devices to tell players they are playing as a relative, knowledge which impacts on the plot and story of the entire game. To be very clear, this thesis will refer to the player role in a playable story as a narrative device, a role that falls under the umbrella of *how* the story is told and a means of constructing the *experiential narrative* space.

The basic separation between plot and story goes back to the Russian Formalists, especially Viktor Shklovsky's distinction between *fabula*, the raw material of a story, and *syuzhet*, the way a story is organised (Cobley, 2005). Traditionally this has been considered in relation to timeline, the *fabula* being events in chronological order, the *syuzhet* being the selection of those same events in an order conceived for narrative affect. Cobley notes that *syuzhet* is normally translated in works by Anglophone narratologists as narrative discourse. This brings us back to Genette's categorisations and enables us to make a clear link between the above theorists: *fabula* equals story and *syuzhet* equals narrative and plot. Synthesising the terms in this way will become useful later in the thesis to elucidate part of its contribution to knowledge in the form of the concepts *improvised fabula*, *authored fabula*, *fixed syuzhet* and *dynamic syuzhet*. Theorist Jonathan Culler has challenged an assumption amongst literary critics that the *fabula* precedes the *syuzhet* and argued that one can also view the *fabula* as a production of the *syuzhet*; story does not just create narrative but is created out of the narrative telling (1981: 170–172). Jacques Derrida has a related critique of any hierarchical ordering of *fabula* and *syuzhet* arguing that narrative construction can be a means of oppressing story—employing it in a certain way to deliver meaning (1979: 94). This questioning of story 'truth' is one way to see how a narrative can signify more story than it is actually telling, making the story the bigger picture—both as the raw material and the interpretable meaning. It is this understanding of *fabula* and *syuzhet* that forms the basis of a decision to call the works being made and investigated by this thesis Playable Stories (rather than interactive fictions, for example). In an interactive work, player agency often enables different ways of experiencing the *fabula* (story)—through non-linearity or branching pathways, for example—making the *syuzhet* (plot and narrative) dynamic (playable). Story content is often authored and then handed to players to play, which in turn produces its own story; hence the suitability of the term Playable Story—a story that is played and also produced by playing. The term Playable Story can also be approached from the opposite direction. Sometimes, players are entered into a situation

where the narrative structure (syuzhet) is fixed—over time and space, for example—and the story that happens within it (the fabula) is open to variation as a result of players' actions and improvisations in dialogue with the set system. An authored syuzhet framework is handed to players who then author the stories (fabula) within it—they are the story's 'raw material' and 'result' as a consequence of play; again, a Playable Story.

Marie-Laure Ryan is a leading thinker in the field of interactive narrative and one whose approach this thesis builds on in various ways. However, there are points on which we differ, one of which being the distinction she makes between Narrative Game and Playable Story. According to the definitions applied in this thesis and explored above, this is a false separation since the terms narrative and story are always interconnected. In her 2009 essay 'From Narrative Games to Playable Stories: Toward a Poetics of Interactive Narrative' Ryan argued:

The combination of narrativity and interactivity oscillates between two forms: the *narrative game*, in which narrative meaning is subordinated to the player's actions, and the *playable story*, in which the player's actions are subordinated to narrative meaning. Or, to put it differently, in a narrative game, story is meant to enhance gameplay, while in a playable story, gameplay is meant to produce story (2009: 45).

To justify this point she dubs shooter and action-adventure games like *Max Payne* (2001) and *Grand Theft Auto IV* (2008) narrative games, and sandbox games like *The Sims* (2001–2006) playable stories. The term sandbox references a child's sandbox where play is not bound by traditional structure and direction. Players are given the ability to choose what, when and how they approach the available choices in content and can often build and create things themselves within the game world. The charge most often levelled against sandbox games is that they tend not to produce sustained interesting, engaging or entertaining narratives. Similarly, the charge most often levelled against shooter and action-adventure games is that player action is subordinated to narrative meaning through techniques like critical pathways, where player choice is limited to achieve the most dramatically interesting progression, and cutscenes where players are forced to put down their controllers to watch expositional sequences, breaking any sense of it being a player's story. These situations are the opposite of what Ryan claims and throw her definitions into question. Ryan further claims that narrative games have a top-down reliance on pre-scripted content to create a narrative arc, and that playable stories are bottom-up rules systems where emergent stories get created during the run of the program that do not necessarily conform to traditional narrative arcs (2009: 51). For

her, narrative games are goal-orientated with win-lose states that aim toward closure, where playable stories are open-ended systems where the goal is immersion in the storyworld. This polarisation does not hold true to the current state of the form. Since Ryan wrote that essay, story exploration games, often called walking simulators, have emerged. The term ‘walking simulator’ has been used as a pejorative by gamers to refer to games that lack traditional aspects such as goals and win-lose conditions. It implies (unfairly) that there is nothing to do in the game but walk around.<sup>3</sup> *Dear Esther* (2012) is recognised as the first but the genre planted its feet more firmly in the games industry with *Gone Home* (2013), which came from asking how a first-person shooter video game like *Bioshock* (2007) would work without the combat.<sup>4</sup> It has been followed by the release of many more story exploration games (SEGs) in the past three years. This story-forward and mechanic-lite form, that often—though not always—involves the exploration of a 3D space to uncover story, had the most influence on the creative project of this thesis. As a genre, story exploration games have received significant criticism within the gamer community for ‘not being games’ because you cannot win. It is arguable that the win-state is in uncovering and understanding the story; but, notably, these games are made by games companies, distributed via games platforms (including Steam, Xbox and PlayStation), commercially successful and critically recognised by the games industry through awards. The argument that they are not games is redundant and something this work seeks to acknowledge but bypass.

Story exploration games have pre-scripted content that is *embedded* in a world (a gothic mansion in *Gone Home*) or a system (a police database in *Her Story*). Players freely explore the space or system to uncover the story content and create *experiential narratives* of their journeys as a result. In *Gone Home* for example, players are Kaitlin ‘Katie’ Greenbriar, a young woman who has returned from Europe to her family’s new home and found it empty. As they explore the house they uncover what has happened to Katie’s parents and sister Sam through the environment, artefacts and an audio diary. There is one underlying story that is not changed by players’ actions, but how players jigsaw the pieces together can be different according to their exploration route. This is guided, but not controlled, by the architecture of the house, which enables multiple non-

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<sup>3</sup> The Chinese Room, who made the first recognised ‘walking simulator,’ *Dear Esther*, has reclaimed the term and sold T-shirts with it written across the chest as a barb to those they see as unable to accept innovation in game design.

<sup>4</sup> *Gone Home* was made by The Fulbright Company, an independent video game studio founded by creators who had worked on the *Bioshock* series together.

linear routes to afford player agency. Your understanding and interpretation as a player can change according to which pieces of information you uncover when, creating an emergent *experiential narrative*. In addition, the game uses *evoked narrative* by playing on the horror tropes of a haunted house on a dark and stormy night to add a layer of frisson to the play experience. There is no explicit win-lose state, the interpretation of the story is open-ended and there is a well-tuned balance between story and agency where one does not take precedence over the other. There is one story of what has happened to Sam and her parents (an *authored fabula*) and players then operate the syuzhet, which can have multiple configurations that produce a variety of *experiential narratives*. This example demonstrates the way story exploration games merge aspects from both narrative games and playable stories as Ryan defines them, which collapses her segregation and makes playable story the most suitable term for use.

Ryan's false separation of narrative games and playable stories has echoes of the historic ludology vs narratology debate over what a game is and how to study them (Eskleninen, 2004; Pearce, 2004; Murray, 2005; Arsenault, 2005; Juul 2006). It was a land grab of sorts with ludologists claiming game studies should focus on games as systems of rules and mechanics rather than as representational forms or a new narrative art, as Laurel (1984, 2014), Murray (1997), Jenkins (2004) and others had tended. The prominent and radical ludologist Jesper Juul argued:

Computer games and narratives are very different phenomena and, as a consequence, any combination of the two, like in "interactive fiction," or "interactive storytelling" faces enormous problems [...] Computer games are not narratives [...] rather the narrative tends to be isolated from or even work against the computer-game-ness of the game (1998).

This is an outdated argument that the *interactive paradox* is real and insurmountable because "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). The rise of story exploration games and the expansion of the games market has shown a demand for rules-based and story-based approaches as well as ways the two work together. The first walking simulator, *Dear Esther*, reached profitability in just 5.5 hours, selling more than 16,000 copies in under 24 hours on Steam (Indiefund, 2012). *Gone Home* sold 250,000 copies within six months and has since been released on console platforms (Conditt, 2014). *Her Story* sold 100,000 copies in its first month (Porter, 2015) and *Firewatch* (2016) has sold approximately 800,000 copies



on Steam alone (Steam Spy). In a later book, Juul softened his anti-narrative position and said: “the emphasis on fictional worlds may be the strongest innovation of the video game,” partly enabled by technological advances that allow storage space for narrative content and evident in the popularity of adventure games (2005: 162). Similarly Aarseth, who earlier criticised the compulsion to see narrative as the primary way to structure and make sense of the world as an “unproductive ideology of narrativism” (quoted in Juul 2005: 15), later claimed ludologists never dismissed the use of narrative in games but wanted to “emphasise the crucial importance of combining the mechanical and semiotic aspects” (Aarseth, 2012: 130).<sup>5</sup> Though Juul moved to a position that no longer disavowed the narrative aspects of games when he argued that fiction contextualises rules and rules cue fictional imaginings (2005: 163), he still framed them as separate spheres operating independently. Pinchbeck made a significant contribution towards neutralising the dialectic in his creation of the term *ludodiegesis* which reflected his thesis argument that narrative in games has a gameplay function through the management and manipulation of player expectation and behaviour (2009: 9); put simply: there is no division between narrative and gameplay, narrative is a gameplay device. Pinchbeck’s model for understanding game narrative shows it is not simply laid over the top of rules but provides an interwoven set of devices that support and manipulate the actions which constitute gameplay. In fact, Pinchbeck argues that narrative masks ludic simplicity in first-person shooter games and enables them to differentiate themselves and appear more complex. Bateman (2015) has labelled the ludological side of the ludology vs narratology debate a form of “fiction denial” and “exceptionalism” that is shortsighted, not least because rules and fiction are both forms of make-believe.

The history of the ludology vs narratology debate is relevant to some of the motivations behind this research work. The ludological stance that games were not a story-telling medium was widely adopted for a significant time. The argument that ‘mechanics make a game’ and ‘stories are laid over the top’ dismissed the role of writers in comparison to computer programmers. It should not be underestimated how pervasive that thinking was in both academia and the games industry, causing writers to be undervalued and treated as ‘narrative paramedics.’ Story, if used, was often considered something anybody could do; secondary (if that) to the technical skills required to build game systems. The dissolution of the opposition between ludology and narratology, and the

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<sup>5</sup> Aarseth famously said if games were stories football teams might want to hire narratologists as coaches (quoted in Huber, 2013: 28).

acceptance that form and feeling, mechanics and meaning, work together is changing perceptions of the roles of writers and the opportunities available. The technical skills required to create effective interactive stories from a narrative science perspective are now more recognised (though there is still a long way to go). This thesis is part of the work being done to further understanding of how story as an art, and writing as a craft, applies to interactivity, to help argue for a sustainable role for writers in the industry and equal value in collaborations with technical artists in the field. In Game Studies it is now accepted that there is room for all approaches from Ruch's interpretation of *Grand Theft Auto IV* as a "modernist, dystopian version of the American Dream" (2012: 331), to Murray's analysis of the simple rules-based game *Tetris* (1984) as "a perfect enactment of the overtasked lives of Americans in the 1990s" (1997: 144), to Bogost's claim that repetitious games like the *Candy Crush Saga* (2012) are interesting because their systems bring humans close to Kant's mathematical sublime (in Suellentrop and Sutherland, 2015). For Bogost, one of the leading academics in the field of game studies, games can express both affective narrative truth and a truth that can be found in the infinite of their mathematical systems (in Suellentrop and Sutherland, 2015).

The above context further justifies the decision to term the work being made and analysed in this thesis 'Playable Story.' Firstly, it is an effective way to avoid the 'it's not a game' discussion. Secondly, if we go back to the breakdown of story as events, plot as underlying causality and narrative as how it is told, we can see that in interactive work the 'how' of telling is active. Agency means a player takes part in the telling by playing: the raw material of story is playable. Thirdly, Playable Story is an overarching term that enables the investigation of interactive work to include other forms; a game can be a playable story but so can a film, a piece of literature, or a theatre show (as will be shown in a discussion of the work of Punchdrunk, Coney and others). Referring to the work as a playable story enables it to cross commercial markets and facilitates a broader theoretical discussion of the combination of story and agency that can apply to forms other than games. It also accounts for how immersive theatre and video games have influenced one another.<sup>6</sup> As well as how both have been informed by experimental literature and non-linear film.<sup>7</sup> Returning to Ryan's examples can illuminate the usefulness of the term playable story further. Ryan (2009) dubbed the third-person shooter

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<sup>6</sup> Punchdrunk founder Felix Barrett has discussed how video games have informed his work (McMullan, 2014; McConnachie, 2015) and Fullbright co-founder Steve Gaynor has discussed the influence of immersive theatre on his work (Gaynor, 2014).

<sup>7</sup> *Her Story* creator Sam Barlow has discussed the influence of J. G. Ballard on his work (Barlow, 2015a).

*Max Payne* a narrative game, a definition already thrown into question. That game is very similar in structure to *Tomb Raider* (2013), a video game considered closely in this thesis and which sees players role-play Lara Croft through an authored linear narrative. The story is pre-scripted but a player enacts it by playing—it is a playable story. If anything, player agency is subordinated to the authored story (the opposite of Ryan’s claim). *The Sims* was one of Ryan’s examples of a playable story. In these games players create virtual people (Sims), build Sims’ houses, help direct Sims’ moods and satisfy their desires in SimCity. Narrative building blocks are provided for play, and the product of that play is then subject to the algorithmic rules of the game, creating unexpected results and emergent stories. A player’s agency in creating and managing their Sims is at the forefront and play produces stories authored by the system—again a playable story, but this time story is subordinated to player agency (again, the opposite of Ryan’s claim). Between these are story exploration games in which there is a more balanced relationship between story and player agency. Players ‘play’ a scripted story and their player journey produces another story—there is a mutual exchange between play and story. The suitability of Playable Story as a descriptor of various approaches to interactivity justifies its use as a catchall term in this thesis.

Novels have readers, films have viewers, theatre has an audience and games have players. The term this thesis chose to refer to the active agents in a playable story is *players*. Interactor has been a favoured term for computational interactive storytelling research (Murray 2012: 11) but it is not as elegant as the term player, which encompasses much more and reflects the active contribution made. The definition of player in the Oxford English Dictionary (online) includes: “a person engaged in recreation or amusement rather than work”; “a person who takes part in a sport or game”; “a person or body that is involved and influential in an area or activity”; “a person who acts a character on the stage; a dramatic performer, an actor.” These inflections of the definition cover the various roles an audience member can take in a playable story. It is also the term most relevant to games and theatre, which are the most influential in my creative project and practice. The concept of play that underpins this thesis is informed by the formative writings of historian Huizinga who in his 1938 book *Homo Ludens* defined play as:

[A] free activity standing quite consciously outside “ordinary” life as being “not serious” but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an

orderly manner. It promotes the formation of social groupings that tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means (1950: 13).

This definition of play as a separate sphere of human activity, sometimes referred to as the ‘magic circle,’ was built on by sociologist Caillois. In his 1961 book *Man, Play and Games*, Caillois concluded that play was best described by six core characteristics:

- 1) It is *Free*; playing is not obligatory.
- 2) It is *Separate*; from the routine of life, occupying its own time and space.
- 3) It is *Uncertain*; so that the results of play cannot be pre-determined and the player’s initiative is involved, allowing for innovations.
- 4) It is *Unproductive*; in that it creates no goods or wealth, and ends as it begins economically speaking.
- 5) It is *Governed by rules* that suspend ordinary laws and behaviours and that must be followed by players.
- 6) It involves *Make-believe* imagined realities that may be set against ‘real life’ (2001: 9–10).

The above understanding of players and play is a basis for understanding how player agency works in playable stories. The idea that play creates a ‘magic circle,’ with its own boundaries of time and space outside the routine of life, has parallels with anthropologist Victor Turner’s work on rituals, which brings us back to the origins of storytelling discussed in the introduction and provides a way to see how narrative and player agency work together. Turner argued that rituals are characterised by a *liminal* phase where an individual transitions from a fixed point in a social structure into a transitional and ambiguous state (1995: 94–95). He said: “Liminal entities are neither here nor there; they are betwixt and between the positions assigned and arrayed by law, custom, convention, and ceremonial” (1995: 95). According to Turner, this liminal state, where one’s identity is dissolved and not yet reformed into something else, brings with it the possibility of new perspectives; while the suspension of societal structures foregrounds human agency. Turner wished to limit the term liminal to traditional rites of passage rituals prevalent in tribal societies, coining the term *liminoid* to refer to modern inventions that have characteristics of liminal experiences but are optional, like a theatre performance or a rave. Pinchbeck said his approach to video game making was to view them as *liminoid* spaces where players are participants in a ritual:

[I]t’s not that you’re transported somewhere else, or become someone else, but that there’s somehow less of you in the experience that is interesting to me. That is what games do. I don’t believe in role-playing in games. I don’t think it happens much at all; but I think there’s a lot of self-consciousness that falls away when you’re im-

mersed in a game [...] I don't think you 'act' in games, it's more like being a ritual participant [...] or mask work, where it's never quite a character but it's not you either, it's this space in the middle (2015b).

This conception of play and liminality helps flesh out ways playable stories combine narrative and player agency. When one moves into a *liminoid* phase there is a dissolution of your established and known societal identity which opens up other possibilities of being (players can be both themselves and someone else). Simultaneously, there is a framework, in the form of traditions in rituals, and rules in play, that your agency operates within, and responds to. This thesis focuses on experiences that use story frameworks and this understanding of rituals and play can help reflect the ways stories use narrative devices to set up *liminoid* spaces that enable agency. This is what *2.8 Hours Later* co-creator Simon Evans describes when he says:

The story was it's a zombie apocalypse, public provision has collapsed, you are in this sinister city and you've got to find a way out [...] For me the story gives people the tools to understand what they're just about to do within the game. I think that whatever you might focus on in story people are just interested in the thing they have to do to execute the rules of the game to win. A good game makes that fun and satisfying and starts to enable people to reflect on what they've just done. Story can deepen the theme and aid that reflection but I think it gives them the tools and the premise for what they will engage in. It's a part of the game toolkit for the player. It doesn't construct meaning, that comes out of people doing the thing [...] It's a gothic form, the gothic form is the fantastical emerging out of the everyday. The fantastical embedded within a quotidian world [...] Year One you're in a street a minute after a suicide bomb's gone off, that's a very powerful premise; and then it was like, you're an illegal immigrant. It's not giving them a role but constructing a premise that people use to begin their experience [...] So you're still yourself but you're also in this incredible world (Evans, 2015).

In *2.8*, narrative was used to set up a *liminoid* space that enabled player agency, an imaginary world that opened people up to new possibilities of being, a film you could move around in where players could access their agency and use new parts of themselves. This is also the approach I took in the writing and design of *Resurgam: The Lost Pearl of Plymouth* (2013), a multi-locational action-adventure game that used live theatre and a digital quest kit (mobile app) to guide players on an Indiana Jones-style mission to find a magical pearl, solve puzzles across physical and digital worlds, escape capture by sea monsters and board a ghost ship to save the city. The tagline: "You Join The Hunt. You Take The Risks. You Become The Hero," encapsulated its bid to offer a storytelling experience that was embedded in reality and could raise people from the everyday to the heroic by combining narrative and player agency.

A clear definition of agency is important to help better understand its dynamic in relation to narrative. Early rhetoric in the field of interactivity was triumphalist about its potential to deliver player freedom, to kick back at the ‘hegemony of narrative’ and let players author their own stories. An example of that rhetoric is this claim by game developer and academic Ernest Adams:

Interactivity is about freedom [...] The whole point of interactive media is letting the player do something on her own. What that means is that a lot of times your player is going to jump off the rails and go do completely weird, unanticipated stuff. That doesn't work very well in stories [...] Interactivity is about freedom, power, self-expression. It's about entering a world and changing that world by your presence (Adams, 1999).

The concept of player freedom is contentious since it is questionable how ‘free’ of constraint one can be when operating within any system—in Adams’s case a game. His statement is allied to the pervasive vision of the holodeck which has fuelled a fascination with proceduralism in digital playable stories evidenced by the hype and expectation around this year’s release of *No Man’s Sky* (2016), a first person open world survival game where the player is a planetary explorer in an entirely procedurally-generated universe.<sup>8</sup> Procedural-generation refers to a computer’s processing ability to execute a series of rules and apply them to different scenarios to embody complex and contingent behaviours (Murray 1997: 71–72). Rather than representing predefined information it can create it algorithmically as the program runs. In a procedurally-generated game, the program takes information including what players have done, where they have been, what triggers they have hit, and combines that with algorithms and random number generators to build customised content. The claim is that two people playing the same game are unlikely to do exactly the same thing and so there is virtually infinite possible emergent content—the game world responding live to a player’s freedom of choice. The hype around *No Man’s Sky* was that it would provide a completely unique experience for every player. Responses to *No Man’s Sky* criticised it for being repetitive and lacking in narrative depth. Hosts of the *Shall We Play A Game?* podcast, *New York Times* game critic, Chris Suellentrop, and freelance journalist, J.J. Sutherland, summed up some drawbacks of a procedurally-driven approach to storytelling in their podcast discussion of their first play of *No Man’s Sky*:

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<sup>8</sup> *No Man’s Sky* is a science fiction game set in an infinite procedurally-generated galaxy run on deterministic algorithms and random number generators. Reviews suggest it is has not realised the holodeck fantasy gamers had hoped for.

Chris: “Is that all there is? Once you get over the awe of the size and the scale of it and the mathematical feat that is performed to you it’s like...”  
JJ: “And? Well? What? [...] I feel like there has to be more...”  
Chris: “I’m not bored but I’m not sensationally entertained. I’m happy to be climbing the ladder, but I think if the ladder gets longer and longer I’m going to be like— wait! —is this just a ladder?”  
JJ: “I’m like who am I? Why am I here? What do I care about? Maybe it’s— hey— you’re just yourself trying to make your way through this big old universe of ours?”  
Chris: “It might be a statement on the loneliness of the universe [...] Maybe *No Man’s Sky* is one long joke about the futility of existence?” (Suellentrop and Sutherland, 2016)

This conversation reflects the tension that was at the heart of the ludology vs. narratology debate and that also exists in the “Two Cultures” (Snow, 1959), science or humanities, approach to making interactive storytelling that Crawford (2015) identifies as a problem (and this chapter tackles later); where some practitioners approach narrative from a solely mathematical perspective of procedural-generation in a bid to realise the holodeck vision of ‘liquid narrative.’ This is part of why the procedurally-generated, *emergent narrative* approach was not a good fit for the creative project of this thesis. I adopted Pinchbeck’s approach that “we don’t need liquid narrative, we need smarter ways of being able to say: there’s a reason why you’re doing this” (2015b). Better understanding the use of narrative devices and creative writing techniques in playable stories is a means of interrogating this question of how to create emotional engagement— how to provide, provoke and incite motivation to play.

There is also an argument to be made that what is perceived as player freedom in procedurally-generated worlds, is not really player freedom. *The Sims* is an example of a game series which uses procedural generation. The social simulator is the oft-cited example of an *emergent narrative* experience where:

[T]he player determines what elements are present in the game world, and any narrative that happens there is entirely a collaboration between the player and the game’s systems. The only fiction determined by the designer is the broad premise of the game’s setting, and individual building blocks for potential outcomes (Gaynor, 2009).

Players design an avatar, insert that avatar into a neighbourhood by building or buying a house, then interact with neighbours and manage the avatar’s needs and desires, primarily through buying things. This focus on a player’s freedom to construct his or her own story has been celebrated as an achievement of a ‘liquid narrative’ goal; but *The Sims* has also been “understood as a subtle system for spreading the ideology of corporative late capitalism” (Sicart, 2003). The charge is that though players think they have free-

dom of choice, and define their own destiny, the assumptions built into the rules and mechanics are interpolating them into a capitalist ideology. The rules and mechanics that define a procedurally-generated world have an ontological argument within them, bringing into question the whole concept of player freedom and reminding us that maths can have narrative affect. As Bogost, the most influential academic and game maker in the Proceduralist School, argues: “Computation is representation, and procedurality in the computational sense is a means to produce that expression” (2007: 5). Freedom is evidently not the best term for the operation of a player within an interactive system; this thesis prefers the term *agency* as a better reflection of the dynamic in playable stories, and the most useful term for player action in dialogue with story, narrative and plot. It employs Murray’s definition of agency as “the satisfying power to take meaningful action and see the results of our decisions and choices” (1997: 126). She says “we expect to feel agency on the computer when we double-click on a file and see it open before us or when we enter numbers in a spreadsheet and see the totals readjust” (126). She further complains that, due to the vague use of the term *interactivity*, agency is often confused with the ability to move a game controller or mouse when “activity alone is not agency” (128). Some of Murray’s examples of agency in digital narrative include casting the player as a navigator, protagonist, explorer or builder negotiating through space and/or material. Murray also criticises the confusion of player authorship with agency countering the claims by critics that players author the work they are experiencing by saying:

[Players] can only act within the possibilities that have been established by the writing and programming. They may build simulated cities, try out combat strategies, trace a unique path through a labyrinthine web, or even prevent a murder, but unless the imaginary world is nothing more than a costume trunk of empty avatars, all of the interactor’s possible performances will have been called into being by the originating author [...] The interactor is not the author of the digital narrative, although the interactor can experience one of the most exciting aspects of artistic creation—the thrill of exerting power over enticing and plastic materials. This is not authorship but agency (152–153).

The clear positioning of agency as being nonequivalent to freedom, and existing in relation to an authored framework, is applied throughout this thesis. What is exciting about playable stories as a form is the exchange of energies between authors and players and the possibilities that contains.

The term *interactivity* frames many discussions of art from virtual reality to immersive theatre to digital novels. It is often used in the context of celebrating its revolution-



ary potential in relation to narrative art. However, as Murray (1997) and Smuts (2009) have identified the everyday use of the term is vague and loose and there are various competing theoretical definitions. As Smuts says: “Unless we have a better understanding of the nature of interactivity, any claims about the nature of interactive artworks or the effects of interactivity on audiences will be suspect” (2009: 53). Defining interactivity here can help clarify what can be considered a playable story, or not, which then provides insights into applicable writing techniques.

Smuts (2009) identifies five problematic theories of interactivity and then develops his own definition which this thesis adopts and simplifies. The first problematic theory is Terrence Rafferty’s *control theory* which views interactivity as a phasing out of the artist so the audience is in control and writing for itself (Rafferty, 2003). He views this as a pandering to audience attitudes and a loss of art’s ability to teach and challenge. Smuts argues this is a confusion of interactivity with control when interactivity is instead about exchange (2009: 53–54). Smuts also claims Rafferty’s argument is too inclusive when he says choosing alternate endings on a DVD is interactive. This echoes Murray’s (1997) argument that interactivity is not equivalent to activity; turning the page in a book or using a TV remote is activity but not interactivity. Another way the term interactivity is used in the everyday is to refer to audience interpretation and the engagement of the imagination as interactive. Filling in ellipses in narration and casting people we know in the roles of characters, for example. This is also too inclusive; while the experience of reading or watching a story is not passive, and can engage an audience emotionally, intellectually and imaginatively, these kinds of narrative experiences do not react *explicitly* to a player’s presence, or make explicit the interplay.

The second problematic theory Smuts identifies is Marie-Laure Ryan’s *making use* theory which views interactivity as making use of user input (Ryan, 2001: 17). Smuts argues that Ryan does not clearly define what she means by ‘making use’ and accommodates flipping TV channels and browsing the Internet, which is again too inclusive. Ryan proposes a spectrum of interactivity from reactive interaction, to random interaction, to selective interaction, to productive interaction. At the reactive end of the spectrum is flipping TV channels and at the productive end the user’s input leaves a durable mark on the textual world. Smuts’ complaint is that Ryan does not specify what it means to leave a mark on the textual world. He claims she is confusing an effect of interactivity with interactivity itself. He also challenges Ryan’s uses of Espen Aarseth’s term *ergodic* to help her define the productive end of the interactivity spectrum as involving a feedback mechanism. In Aarseth’s formulation, ergodic texts require “non-trivial effort”

to traverse but that term does not specify what a feedback mechanism is (1997: 1).

Smuts dubs this conflation of ergodic and interactive as too general since it can require non-trivial effort to follow a story in a film or novel (2009: 58).

The third problematic theory Smuts challenges is David Saltz's *Input/Output* theory which views interactivity as a computer-restricted phenomenon (Saltz, 1997). Saltz argues that the following events must occur for something to be interactive: an input device translates a person's behaviour into a digital form that a computer can understand; the computer outputs data related to that input; the output data is translated back into something the person can perceive. Smuts rejects this as too inclusive but also narrow since there are interactive works that are not computer-based (2009: 58–59). The fourth problematic theory Smuts identifies is Dominic McIver Lopes's *Modifiable Structure Theory* which like others views interactivity on a spectrum from weak to strong (Lopes, 2001). Lopes defines "weakly interactive" as allowing users to control the order in which they access content, and "strongly interactive" as allowing them to modify the structure in stories and sound sequences in music. Smuts argues these definitions amount to the same thing. Lopes is also too inclusive, since DVD chapters could fall under the definition (2009: 60–61).

The fifth problematic theory Smuts identifies is Janet Murray's *Procedural/Participatory* theory where for something to be interactive it must be procedural and participatory (Murray, 1997). Smuts argues that procedures have nothing to do with interactivity and that participation is a confusing way to talk about what is better termed responsiveness (2009: 62). He argues that a procedural definition is tied too closely to the mathematical processing of computers and that though it might be a technical implementation of interactivity it is not its essence. Smuts's issue with the use of 'participatory' is the implication that players are in the artwork. While that might be the case for some interactive work, it is not the case for all; work that is responsive to your actions does not necessarily include you in it as a participant. This distinction is vital to the contribution this thesis makes towards writing for interactivity when it later argues that shifting the focus from player-as-story-protagonist has positive implications for the negotiation of narrative and agency in digital projects.

After arguing the inadequacies of these five theories of interactivity Smuts offers his own definition. He claims interaction is a kind of behaviour one engages *in*, rooting it in human experience rather than in the art itself, adding that we speak of interacting *with* something or someone. Using the example of human conversation, Smuts argues that interactivity is characterised by "responsiveness absent of control and predictabili-

ty” (2009: 63). For example, conversations where someone merely repeats what you say, or responds with entirely random non sequiturs, are not interactive because they have a predictability bordering on control, or they dismiss your input entirely. For Smuts, the type of responsiveness is important. He argues for “mutual responsiveness” that “is somewhere between controllable and just random” (2009: 64). He adds that if we can reliably predict a response there is merely control or manipulation; and that once we gain control of something it ceases to be interactive. From this he defines interactivity as:

*Something is interactive* if and only if it (1) is responsive, (2) does not completely control, (3) is not completely controlled, and (4) does not respond in a completely random fashion (2009: 65).

Moving away from theories that are too inclusive, tied to technological processing or privilege user control, he makes the case for interactivity as *relational*, rather than an intrinsic property: Things themselves are not interactive; the relationship is.

This is a robust definition of interactivity but is worth simplifying to apply to the relationship between story and player agency in order to offer useful insights into writing decisions that can be made when creating interactive work. One can say that a work that does not completely control a player, or respond in a completely random fashion (i.e. listens to what the player is doing), enables agency; the quality of offering players power to take decisions, and then see the results of those choices. It is therefore simpler to say that interactivity is defined by an interplay between *agency* and *responsiveness*. It follows that a good barometer for measuring the level of interactivity in a playable story is to judge the relationship between agency and responsiveness. An ideal relationship between story and agency would be an exchange that sees story, narrative and plot compel player agency and then respond with narrative rewards that deliver a satisfying experience of agency. Theoretically this interplay would create a ‘magic circle’ of immersion (a term defined later in this chapter) that would keep players engaged. Practitioner Steve Gaynor describes the ideal form of game design as “a collaborative enterprise between the designer and the player; not the designer giving the player direct orders and the player dutifully carrying them out, but both parties participating in a sort of call-and-response” (Gaynor, 2011). This call-and-response is the relational exchange of interactivity and this thesis will go on to make the case that, currently, an effective relational exchange between narrative and player agency in digital projects occurs when players are made protagonists of the experience, rather than of the story.

This new definition of interactivity is particularly useful to an exploration of writing methods because it is not concerned with the technical ability to act within a story, rather with generating and maintaining a desire to act in a player; it is not about ‘bells and whistles’ or technological novelty but asking how writers can compel players to act? Being able to act does not equate with wanting to act, and creating and understanding how desire drives action is the expert domain of storytelling since desire is central to the construction and management of character in narrative (Truby, 2007), and “character can only be expressed by choice under pressure in the pursuit of conscious and subconscious desires” (McKee, 2014). Active agency is also not synonymous with being a character within a narrative (as will be explored later). This understanding makes clear that an approach to playable stories which only considers enabling players to interact (by pressing a button, for example), without considering how to use narrative in a *ludodiegetic* way (to compel players to act), is in danger of lacking the impetus to drive player agency. Story and form have to be in a relationship together to create interactivity and meaning.

Story is at an advantage in terms of the creation of unpredictability that Smuts identifies as central to interactivity since it is vital for the creation of narrative drive: “the quality that keeps readers riveted” (Coyne, 2013). Narrative drive is dependent on the audience not knowing what, or exactly how, something will happen. If an audience can predict how a narrative will unfold it will switch off. Generating narrative drive in non-interactive work is the art of creating dramatic tension and “requires a consummate understanding of how best to manipulate the relationships between the reader/audience, the characters in a story, and the storyteller” (Coyne). McKee (2014) identifies three main tools writers use to create narrative drive and hold the interest of their audience: mystery, suspense and dramatic irony. The challenge in playable stories is marrying this inherent quality of ‘good storytelling’ (narrative drive and dramatic tension) with agency and responsiveness. To be interactive, the narrative drive must not control the player but compel agency, then respond authentically to that agency to generate more in a virtuous magic circle of immersion until the conclusion of the experience. How playable stories do this will be analysed in detail through examples in Chapter 2.

Immersion is another slippery term that get used in a variety of different ways and contexts in the field of interactivity. This thesis is informed by Samuel Taylor Coleridge’s concept of the “willing suspension of disbelief” (1817/2004) and Mihály Csíkszentmihályi’s (2008) concept of “*flow*” to argue for immersion as an *effect* rather than a form; a consequence of the narrative devices used not a narrative device itself. The

work of Punchdrunk theatre company for instance is popularly called immersive theatre because it invites audiences inside theatrical worlds to roam around, blurring the lines between space, performer and spectator (<http://www.punchdrunk.org.uk/about/>). In *The Drowned Man* (Barrett and Doyle, 2013c) audience members were invited to explore the world of a 1950s Hollywood studio and encounter the characters within it. The process of being dropped into a storyworld does not, however, presuppose immersion; just as being surrounded by something does not necessarily mean you are immersed—you may be bored or your mind might be elsewhere. Referring back to Jenkins (2004), Punchdrunk’s technique of surrounding an audience with a theatrical world is a form of *environmental storytelling* that creates immersion, but that immersion is a feeling located in players, not in the form itself. Immersion is a result of Punchdrunk’s skilful use of *environmental narrative* (alongside the *enacted* performances and interactive one-on-ones with characters). It is a form of narrative reward. In a contrasting experience, one might go to a show set in an asylum but not feel immersed because the narrative devices do not generate a feeling of immersion. To further explain the distinction being made here, one might be immersed in playing a game of chess but that ludic immersion is not the form of the game itself—you are not dropped into a game of chess; it is a consequence of the interplay between player and game mechanics. As Csíkszentmihályi argues, immersion, or “*flow*,” is not static, it emerges from active engagement with a dynamic process (2008). It is a state of being where self-consciousness and identity can drop away in a process comparable with participating in a ritual.

In *The Art Of Immersion* (2011) Frank Rose wrote about how the Internet was changing storytelling in relation to form and economics. He argued that the blurring of author and audience, story and game, entertainment and marketing, and fiction and reality were examples of ways this was happening. He claimed that a new grammar of storytelling native to the Internet was emerging and that it was immersive; but his application of the word immersive was vague. One example he gave of immersive media was the Nine Inch Nails concept album *Year Zero* (2007). Singer-songwriter Trent Reznor wanted to find a way to convey the album’s dystopian vision of America as a theocratic police state so created, what Rose calls, an immersive narrative experience in the form of an alternate reality game (ARG). The *Year Zero* ARG started with a tour and then played out through hidden messages embedded in the text of gig T-shirts; usb sticks with decodable audio files left in the toilets of venues; flyers; videos; billboards; emails; morse code in the album music; posts on the messages of the fan forum; fake websites; in-game mobile phones; an underground resistance movement that bused some players

to a secret gig that was then raided by a SWAT team. It was a story unrestricted by the parameters of page or screen that spilled out into the real world and across media platforms. Rose claimed that because the story surrounded a player in the real world it was immersive. In fact, the form of telling was *transmedia*, in Jenkins definition of transmedia as a story which “unfolds across multiple media platforms, with each new text making a distinctive and valuable contribution to the whole” (2006: 96); the result of playing it, was immersive. Rose’s book is an excellent look at how the growth of the Internet and new digital tools has changed the state of the media industry, but using ‘immersive’ as a catchall term for the media emerging from that change is imprecise. There is more clarity in defining immersion as the *flow* players feel as a result of experiencing a playable story, whether it is told in transmedia, theatre, video game, or other playable story form. Using Csíkszentmihályi’s work as the anchor of this understanding is useful to consider in relation to the close analyses in Chapter 2. Csíkszentmihályi’s research identifies 7 feelings of *flow*:

- 1) Completely involved in what we are doing—focused, concentrated.
- 2) A sense of ecstasy—of being outside everyday reality.
- 3) Great inner clarity—knowing what needs to be done, and how well we are doing.
- 4) Knowing that the activity is doable—that our skills are adequate to the task.
- 5) A sense of serenity—no worries about oneself, and a feeling of growing beyond the boundaries of the ego.
- 6) Timelessness—thoroughly focused on the present, hours seem to pass by in minutes.
- 7) Intrinsic motivation—whatever produces flow becomes its own reward (2004).

In Chapter 2, we will see how some negotiations of narrative and player agency disrupt these feelings of *flow* and break the immersive suspension of disbelief, which impacts on their effectiveness.

Marie-Laure Ryan helps advance this argument for immersion as an effect when she argues: “narrative immersion is an engagement of the imagination in the construction and contemplation of a storyworld that relies on purely mental activity” (2009: 54). She identifies four types of narrative pleasure available to players in the form of *spatial*, *temporal*, *epistemic* and *emotional* immersion. Her analyses of these forms of immersion are particularly useful because they can frame a discussion of the effects of narrative devices in playable stories. Below, I have fleshed out her categorisations with insights from other narratologists and practitioners, and examples from recent playable stories. *Spatial immersion* is not just the experience of movement through space but emotional attachment to a location, or ‘sense of place.’ It is something conjured in nov-

els via descriptive passages, triggered in theatre by the use of set design and achieved through 3D art and *environmental storytelling* in games. According to cognitive psychologists, Mandler and Johnson (1977), it is the most easily remembered narrative component. Ryan allies *temporal immersion* with the narrative devices of curiosity, surprise and suspense—the management of time in storytelling. Curiosity occurs when wanting to know what happens next drives players to move through time to find out. According to McKee (2014), this happens when players are curious about the expositional facts that have been hidden from them, the mystery they need to solve. Alfred Hitchcock called mystery an intellectually immersing, rather than an emotionally immersing, process (American Film Institute, 2009), but Ryan argues that surprise is often the reward for curiosity. In this sense it can be viewed as the emotional payoff of an intellectual process. Surprises often intensify narrative grip—an audience leans in to find out more, or to work out why they did not see it coming. Sometimes an audience will know a surprise is coming, the twist in a crime story for example, and this knowledge can be gripping because they want to be delighted by the surprise and the artistic skill required to pull it off. Surprise can lead to the narrative pleasure of changed perspective and backtracking through the cause-and-effect chain (the plot) to see the alternate story logic you missed: “our pleasure comes from swapping our allegiance from the old strand of logic to the new one” (North, forthcoming 2017: 98). Causing players to move back-and-forth in time in an effort to comprehend delivers an emotional impact and resonance that can last in an audience long after the drama has concluded.

Ryan defines the narrative device of suspense as when players can foresee two or more possible outcomes and want to find out which happens. McKee (2014) adds further understanding to how suspense works when he argues that it is a combination of curiosity and concern. He says that to achieve it, character and audience always know the same but no one knows how it is going to turn out, which creates empathy and concern for the well being of the character. Suspense, for McKee, is an emotionally immersing process, which is also what Hitchcock argued (American Film Institute, 2009). However, Ryan and McKee’s takes on suspense differ again from Hitchcock’s famous analogy of the bomb under the table. In justifying why he always used suspense rather than surprise, Hitchcock said:

Four people are sitting around a table. Talking about baseball. Five minutes of it. Very dull. Suddenly, a bomb goes off. Blows the people to smithereens. What do the audience have? Ten seconds of shock. Now take the same scene. And *tell* the audience there is a bomb under that table. And it will go off in five minutes. The whole

emotion of the audience is totally different because you've given them that information that in five minutes' time, that bomb will go off. Now the conversation about baseball becomes very vital because they're saying to you, 'Don't be ridiculous, stop talking about baseball, there's a bomb under there.' You've got the audience working (American Film Institute, 2008).

Hitchcock added to this analysis that for suspense to work the bomb must never go off, or the audience will be angry because you have not provided them with any relief. Instead, he said, someone's foot must touch the bomb so it gets thrown out the window just in time. This understanding of suspense plays with time in a slightly different way to how Ryan and McKee suggest because the audience glimpses a possible outcome the character is unaware of. This is closer to another narrative device that also generates *temporal immersion* but that Ryan does not include: *dramatic irony*. McKee (2014) explains dramatic irony as defined primarily by concern; a situation where the player is put ahead of the characters, knows what is going to happen but can do nothing to stop it. For instance, when *Sunset Boulevard* (1950) opens with a dead protagonist, audience attention is held by wanting to find out how and why it happened, and then in observing the progress of a character who cannot see how things will end up. Dramatic irony is a technique that can also generate *epistemic immersion*—the desire to know. The mystery story is the prototypical genre for generating *epistemic immersion*. Playable mystery stories often achieve it by moving players through a 3D space as detectives or archaeologists encountering objects, environments and scenes between characters to uncover the story, like in *Gone Home* (2013) and *Everybody's Gone To The Rapture* (2015). It is also achieved in *Her Story* (2015) by providing players with a searchable database they use to uncover jigsaw pieces of story that fit together to reveal the truth. In *L.A. Noire* (2011) and *Heavy Rain* (2010) it is achieved by players role-playing the character of a detective and enacting the investigation in real-time. In *Underland*, mystery and a new form of dramatic irony is used to generate *epistemic immersion*, which will be discussed in Chapter 3.

Though *emotional immersion* can be a result of the narrative management of space, time and knowledge, Ryan defines it separately and more broadly as involving both emotions which are *self-directed* and those that are *empathetic* (identification with others). The engagement of both of these facets at once is particularly relevant to playable stories since they are *liminoid* spaces where players are often themselves and someone else simultaneously. Ryan says: "self-directed emotions concern our desires and the success of the actions through which we try to fulfil them," whereas empathy is "men-



tally simulating the situation of others [...] and imaging their desires as our own” (2009: 56). Analysis of how the video game *Heavy Rain* (2010) works can help reveal the differences between *self-directed* and *empathetic emotional immersion*. At the centre of *Heavy Rain* is the mystery of the Origami Killer, a serial killer who uses extended periods of rainfall to drown his victims. Players are brought into the mystery via the character of Ethan Mars, a father whose son Shaun has disappeared and could be the Origami Killer’s next victim. The player-goal is to find the Origami Killer and save Shaun. The pursuit of this resolution is tied to the *self-directed* emotions of working out how to beat the game. Can you play well enough to reach the goal? To play you *enact* the roles of four central characters: distraught father Ethan Mars; FBI profiler Norman Jayden, sent from Washington to support the police with their investigation; former police officer and marine Scott Shelby who is working as a PI investigating the Origami Killer; and photo-journalist Madison Paige who finds herself unexpectedly caught up in the latest Origami Killer case. By inhabiting and switching between these characters you learn about their own wants and desires which builds an *empathetic* relationship with them. Their goals in scenes chime with your own goals and by flipping between them you gain a greater understanding of their place in the world and the battles they face. Jayden’s addiction to drugs that helps him cope with the mental strain of his work, for instance. Players of *Heavy Rain* experience *self-directed* and *empathetic emotional immersion* simultaneously.

*Heavy Rain* has eight different endings, from Shaun being saved and the Origami Killer being apprehended, to Ethan hanging himself in prison and the Origami Killer getting away with everything. The outcome depends on how well you have played the game, giving the conclusion a *self-directed* emotional kick. What is especially interesting in this game is that it is revealed that one of the characters you have been playing—Scott Shelby—is the serial killer. His actions, that you have been judiciously *enacting* under a false premise, are not about investigating evidence at all. Instead, you are helping him recover and destroy evidence that might implicate him. Your *self-directed emotional immersion* is played against you in the revelation of this betrayal. This deepens the *emotional immersion* as you reframe the logic that drove you to play the game so Scott would succeed. In addition to this, the use of a game mechanic intensifies the *empathic* engagement with Scott’s story. In flashback sequences players are a young boy who is playing in the rain with his brother on a construction site. During one sequence the player-character’s brother falls and gets stuck in a broken pipe that is rapidly filling up with rain water. The game restricts the player-character’s ability to save him and

when players go searching for help they discover a drunk father who neither believes them or cares. Players are forced to return to the brother without help and witness him slowly drown. This creates powerful *empathetic emotional immersion*; players now know what shaped the Origami killer into kidnapping young children to try to get their fathers to save them.

*Her Story* is another example of both forms of *emotional immersion* being engaged. In the detective work of searching the police database to uncover what this murder case is all about, your *self-directed* emotions as a player wanting to crack the case are incited: how good are your detective skills? Can you solve it faster than everyone else? What are the keywords that will unlock the mystery? In selecting search terms, you are also asked to examine your own assumptions and, potentially, prejudices. This is still in play when watching the video clips that result from your searches, but via these players also gain *empathetic emotional immersion* as Hannah and Eve explain what happened and why. An extra layer is added when it is revealed that you are playing from the point-of-view of the child of the murder victim, trying to find out who your parents are. Your *self-directed* emotions as a player are subsumed into an *empathetic* engagement with the character of Sarah as you imagine her motivation as your own. In the act of searching you embody the emotions Sarah feels as she searches for knowledge about her parents. Barlow said he added this twist to open up more story space and ask “what happened after that? That’s pretty much up to you. That’s the kind of space to make you think about the high level themes and what this story says about families and relationships” (2015b). This breakdown of how immersion works in playable stories shows that the different kinds—*spatial*, *temporal*, *epistemic* and *emotional*—are dependent on the use of narrative devices. Playable stories cannot rely on technical features alone to generate immersion, those features must be allied with narrative devices like mystery, suspense and dramatic irony. It has also shown that the particularity of playable stories as *liminoid* spaces enables a coupling of *self-directed* and *empathetic emotional immersion* in a way not available in other narrative forms. These lessons informed the development of *Underland* as a playable story.

In 1992, game designer Chris Crawford gave his famous ‘Dragon Speech’ at the Game Developers Conference where he called for video games that express the breadth of human emotion and experience, and combine interactivity and narrative affect. He portrayed this ambition via the metaphor of a dragon he was setting out to slay. At the 8th International Conference on Interactive Storytelling (ICIDS) in Copenhagen in 2015 he gave another keynote speech claiming that the dragon had not yet been slain. He ar-

gued that despite hundreds of researchers and practitioners tackling the question little had been accomplished because of the “Two Cultures” (Snow, 1959) split between Arts and Humanities and Science and Technology, where two highly sophisticated but very different modes of thinking have developed. He claimed that those two cultures need to collaborate more before digital tools can be used to tell a story with as much emotional power as novels, films and TV. Crawford argued that those chasing the dragon— the holodeck dream of liquid narrative—have focused on putting human reality inside a machine, endowing computers with the human capabilities of processing the complex emotional responses that give stories their power. The problem with this approach is that it runs into the limits of artificial intelligence (AI). Aesthetically there is the issue of the “uncanny valley” where digital replicas of humans elicit feelings of unease and revulsion because they appear nearly human but not quite right (Uncanny Valley, 2016). Jilted movements or nothing behind the eyes of game characters are examples that trigger the feelings of the uncanny valley and hamper *emotional immersion*. It is also extremely difficult to model what complex human experiences like love, friendship, jealousy, betrayal or revenge look like in numbers and systems without being necessarily reductive. It is much easier for computers to simulate the physics of objects hitting each other. As a result, games are overwhelmingly good at shooting people in the face and not so good at the intimate details of life.

AI reality and the types of games predominately made as a consequence have frustrated many in the games industry who have echoed Crawford’s dragon-slaying ambition with a call for the development of “deep gaming,” a term used for games that explore complex human emotions and empathy (Bluestein, 2014; Spector, 2015; Script Lock; Folkman and Folkman, 2015a and 2015b). This challenge is one game designer Peter Molyneux took on with the launch of a research project “dedicated to developing what he called “emotional AI”: technology that would yield a character with such emotional resonance that players would react as if it were real” (quoted in Rose, 2011: 280). The Kinect project did not reach market as a standalone game but technological features developed in the project appeared in other games. Demis Hassabis, who worked as a game designer with Molyneux at Lionhead Studios, switched to neuroscience and AI research to tackle the same question. He said:

There’s a reason why games have evolved in the direction of shooters. You’re not going to have a conversation. You’re not going to show any emotions. You just have to shoot them [...] I promised myself I would come back to games once I had done something with AI. What would it really be like to have characters who understand

emotions and motivation? That's when games will come into their own (quoted in Rose, 2011: 284–287).

In a bid to achieve this, Hassabis is attempting to create a digital model of human brain function. His investigations have discovered that the brain's capacity for processing memory and imagination is connected in the hippocampus (Hassabis et al. 2007, 2009). In an attempt at reverse engineering, he hopes to uncover the neural coding, or 'algorithms,' that manage those functions in order to emulate them in AI and create digital characters with realistic emotions. Artificially intelligent characters who can remember what has happened and project future possibilities have the potential to realise the ambition of the holodeck: a virtual world we can enter as players and will react authentically to whatever we do without the need for content to be pre-scripted. It is not yet possible to emulate that level of emotional complexity with AI, which is an obstacle contemporary writers and creators of playable stories have to traverse.

These AI-complete challenges ask questions about what constitutes intelligence and consciousness. According to philosopher John Searle a computer will never be equivalent to the human mind. Through his 'Chinese Room' thought experiment Searle (1990) argues computers use syntax to manipulate symbols without paying any attention to semantics.<sup>9</sup> They know where to put symbols and how to move them around but not what they mean. He concludes from this that computers cannot think and that consciousness is dependent on non-computational physical and chemical properties of the brain—the mind is not a machine (Searle, 1992; TEDx CERN, 2013). This perspective is relevant to the future of storytelling in digital forms because of the ethical dimensions to consider if a computer program can become advanced enough to simulate a human mind without having the consciousness to understand what it is saying or doing. Where would the narrative content filter be, for instance? An example of what that reality might look like is Microsoft's AI chatbot Tay that was released in March 2016 and posted a deluge of racist, sexist, pornographic, drug-related, genocide-inciting and Holocaust-denying tweets in response to questions (Tay (bot), 2016). Tay was a piece of software learning from human data without understanding what it was talking about. It was taken offline 16 hours after its launch after tweeting more than 96,000 times. This raises questions

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<sup>9</sup> The experiment describes a situation where you are locked in a room with a letterbox in the door, a book and some paper. Someone slides a message in Chinese characters through the letterbox and you use the instructions in the book to respond in a way that the person on the other side of the door believes you can understand Chinese, even though you cannot (Searle, 1980 and 1984). Searle equates this with what a computer program would do to pass the Turing Test and argues that it does not give the computer a mind, consciousness or understanding, regardless of how well it *simulates* intelligence (Searle, 1990: 26–31).

about abdicating responsibility to AI when it recycles prejudices inherent in the historical data it uses to learn. Will it be able to intervene and break a pattern in a way that human consciousness can? Would art it creates perpetuate old ideologies? Regardless of whether or not the challenge of AI-complete is surmounted, writers of digital playable stories have to use the constraints of the digital systems at hand. The pursuit of deep gaming relies on genuine emotional expression in digital characters, which is something that AI cannot yet achieve alone. This has implications for the type of experience you create and where you locate the player within it.

The AI approach to the design of playable stories is linked to the idea of the player-protagonist at the centre of the narrative; the pursuit of an affective *emergent narrative* experience where the storyworld is designed to shape around players and their choices. This is seen by some to be the key to player freedom, which has already been identified as a troublesome concept. The twin concepts of ‘player-as-story-protagonist’ and ‘player freedom’ fit the empowerment rhetoric that many commentators on digital technology have celebrated. For example, Clay Shirky (2008, 2010) has traced how digital technology turned passive consumers into active producers providing the tools for group action and collaboration and changing culture, politics and economics in the process. He cites many examples of people power and collective activism, like the Arab Spring, to show how these changes have manifested. Similarly, early commentators on digital storytelling framed it as the realisation of Roland Barthes’s idea of the death of the author—freedom from the repressive control of authorial intent (1977: 142–148). This approach has a political will to it and was where my own interest in the field began. In the course of this research project I have discovered that it might not be as interesting in storytelling terms as it first sounds. Though practitioners and researchers around the world are doing pioneering work to push the boundaries and evolve the medium, recent studies have revealed that *emergent narratives* (AI-driven narratives) are not producing “consistently interesting” or “well formed” stories (Ryan, Mateas and Wardrip-Fruin, 2015). As has been established, interactive storytelling is about the ‘call-and-response’ between players and the authors of stories and systems; it is not about author control or player control but the interplay between them. This poses the question: is there a potential fallacy at work in the focus on player-as-story-protagonist that is limiting storytelling possibilities? To explore this more, one needs to analyse the consequences of putting players at the centre of the narratives.

Real-time storytelling is one ramification of making players the nexus on which the story, plot and narrative turns. Players are dropped into a world as themselves, a charac-

ter they have customised or a character they are inhabiting and the story plays out around their presence and in tandem with their actions. They might be able to jump back and forth in time, like the player-character Max in *Life Is Strange* (2015), but the action in any scene is still real-time—there is no distance or frame between the player and the story, they are in the frame. With the limits of AI as they are (unable to create emotionally complex NPCs that can respond to player presence live without being pre-scripted) creators use various techniques to paper over the cracks that compromise the quality of interaction between story and player agency.<sup>10</sup> *Heavy Rain* successfully generated *emotional immersion* but also had drawbacks that can help illuminate the problem of player presence at the narrative centre. In the opening sequence of the game players wake up as Ethan Mars and live out a happy day at home with his family. This backstory to set up the call-to-action when he loses one son in a car crash, becomes estranged from his wife and has his remaining son Shaun kidnapped. It is designed to be relatable to help motivate players to find Shaun and bring the Origami Killer to justice. The problem is pacing and absence of dramatic tension in the scene as a result of real-time presence. Players wander around the house taking a shower, making food, doing work, playing in the garden with Ethan's sons. It is a scene that would be edited out of a film because of its lack of dramatic tension, but is not here because the game is trying to construct the illusion that players are present in the moment and in control of driving the action forward. Sequences of wandering around beautifully realised virtual space trying to work out how to push the narrative forward are familiar in video games and happen at various points in *Heavy Rain*. For example, players operating Ethan can spend a long time pacing around a police station to work out how to trigger the next scene. The NPCs in the scene all ignore this activity, even if Ethan's bashes into them. This exposes the limits of the game world and breaks players out of the narrative, diluting any emotional impact. The realisation of player presence as story-protagonist and the quest to offer agency in that experience dictates the real-time nature of scenes and so limits immersion and the effectiveness of the narrative experience. The video game *Virginia* (2016) tackles the real-time problem by using jump cuts in its opening sequence set up of the char-

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<sup>10</sup> I should note that my use of the term 'presence' is considered in relation to its narratological impact. It is simplified to focus on the narratological consequences of creating an illusion that players are 'present' as the protagonist of the story. The extensive computer science literature on the concept of presence is not referred to because this thesis seeks to fill a gap in the literature in relation to the execution of narrative devices and does not approach writing for playable stories from a computer programming perspective. It acknowledges that presence is a contested term and refers to that in the use of Turner's concept of the *liminoid* where players are both themselves and a fictional character in a virtual environment.

acter of F.B.I Special Agent Anne Tarver. Players wake up and enter the bathroom as Anne, see in the reflection that she is anxious and stressed, open the mirrored cupboard over the sink, and then when they close it, find she is washed and dressed and they can put her lipstick on before leaving for work. These jump cuts tell players that they are not in control of Anne's story, but communicate narrative information efficiently. The trade-off for narrative affect is limited player agency, the opposite of in *Heavy Rain*.

Associated with the problem of player presence as story-protagonist and its impact on narrative pace is criticism of 'railroading': forcing players to jump through narrative hoops to create dramatic tension and achieve game goals. It is the opposite of leaving players wandering aimlessly, instead funnelling them into story beats, but can be equally disengaging and break *flow*. As a technique it prioritises a narrative arc, or critical path, over affording agency and is commonly found in games with linear narrative structures. It can cause complaint from players that their choices do not impact the story, their agency is only the enactment of pre-scripted sequences, and their presence does not count. In this case, agency is limited by the need to manage player presence as story-protagonist in a way that delivers the most effective narrative impact. It is recognised that railroading is "normal in the industry, where budget impacts how much actual narrative choice can be offered to the player without development costs mushrooming" (Heussner et al. 2015: 118). There is a linear arc of story that every player will traverse in *Heavy Rain* but the frustrations of railroading are mitigated by branching pathways that lead to eight possible endings. Branching narrative pathways can afford the sense a game is responding to player presence but are resource-heavy to produce and test. Designing branching pathways quickly becomes exponentially more complex, spilling into thousands of outcomes. Game makers have developed strategies such as fold-back structures that track world states, or dialogue trees that change the feeling or reaction to events (but not what happens), to make player customisation manageable. Player agency is still tightly controlled in a branching narrative, with all possible consequences and actions mapped out and managed. There is an illusion of narrative control to satisfy a call for player freedom but the pathways have been defined. Players can feel their agency has been cheated by being forced into assigned options. This happened in *Zoetrap* (2011), a supernatural ARG I co-created, co-wrote and directed in San Francisco and which played out across a live crime scene, social media characters, fake newspaper and a mobile app that emulated the murder victim's phone and called and video messaged players. The final scene featured a binary choice players could make on the fate of the protagonist and we found players wanted to choose other options. If it

were a live performance, actors could have improvised around players, but because it was a live-digital hybrid, and the ending played out in video, we had to constrain player agency. In branching pathway narratives player presence again limits player agency to deliver narrative affect. Throwing the limits of agency into relief to serve the narrative meaning can be an effective way to work with the constraints of branching pathways in playable stories and will be discussed via examples in Chapter 2.

Another narrative consequence of player presence as story-protagonist is cutscenes: non-interactive cinematic sequences that require players to put down their controllers and watch. They are used to provide player motivation and convey essential information designers fear players will miss by other means; but they have attracted ire from gamers who often skip them, objecting to being ‘spoon-fed’ story. *Heavy Rain*, for example, encountered a lot of criticism for its long unskippable cutscenes, and also for its Quick-Time events where players have limited control within a scene. Both remain a mainstay of AAA games and ensure players are kept on the story path. To abate some of the criticisms of cutscenes, *Tomb Raider* (2013) writer Rhianna Pratchett said an important rule was “never having Lara doing something cool in a cutscene that the player wasn’t doing in the rest of the game” (Pratchett, 2015). She added that it was better that players get to take more action than the player-character ever does in a cutscene, i.e. do not show a character doing a ninja move that he or she cannot do when the player is in control. Despite this and other strategies (e.g. using them as a reward and breather after a long stretch of gameplay) to make cutscenes as effective as they are in *Tomb Raider*, they still limit player agency to deliver narrative. Cutscenes are also a skeuomorphic approach that imports successful narrative devices from film into a form where they are not native; eBooks simulating page turns is a similar phenomena in that they are a redundant gesture in the medium. As Murray (2012) argues:

We should not be focused on making an electronic version of a book, record collection, television show, etc.; we should be focused on serving the information, entertainment, or community needs that these particular books, records, television shows are addressed to, by rethinking those needs in terms of the affordances of digital media (2012: 14).

Murray categorises the affordances of digital as *procedural*, *participatory*, *encyclopaedic* and *spatial* (1997, 2012). The above analysis has deconstructed ways these affordances encounter difficulties when it comes to player presence as story-protagonist: *procedurality* is held back by the limits of AI; *participation* is hampered by railroading



and cutscenes; and *spatial* presence causes problems around real-time storytelling and pacing that reduce dramatic tension. These issues cause an imbalance between story and player agency that suggests a flaw in thinking that playable stories should be shaped around the player-as-story-protagonist. This observation is backed up by research into types of player engagement in computer games explored below.

The creation of empathy is vital to generating *emotional immersion* in stories. As McKee (2014) argues: empathy is the means by which emotional involvement is created; authenticity is the means by which it is sustained. If a playable story lacks the ability to generate empathy it follows that it might suffer in its attempts to deliver a good narrative experience. Like Ryan, Petri Lankoski's research identifies two types of engagement with characters in computer games—*goal-related* or *empathic*. He argues that cognitive overload from *goal-related* demands can reduce *empathic* engagement, meaning that when decision-making and motor functions stress a player's cognitive capacity it can prevent the generation of empathy (2011: 299). He categorises *goal-related* engagement as an 'I' experience where players act to reach their own goals; and *empathic* engagement as being about identification with other characters (2011: 306). When players are the protagonist of a game narrative it is an 'I' experience, even if they are inhabiting another character in first or third person. These games use an overarching goal with a win-lose state to guide play. For example, in *Tomb Raider* (2013) the player's goal is to help Lara survive, rescuing her friends and colleagues and unlocking the mysteries of the lost kingdom of Yamatai in the process. Players must accept the goal and its consequence that poor gameplay will lead to failure. In those moments where players fail in the pursuit of the goal, they die and respawn at a previous save point. Since it is an action-adventure title, proceeding towards the goal requires completing feats of physical dexterity and defeating multiple enemies in combat, both of which require deft twitch (reaction-time) gameplay that stresses motor functions. According to Lankoski, this can limit the amount of empathy created.

As has been identified, the limits of AI have caused game developers to focus on the goal-related motor functions of players rather than their emotional faculties because of the problems of modelling complex emotions on a computer. This accounts for the prevalence of games with physics-based structures: shooters, puzzle games and twitch-based tasks. Lankoski's research sheds light on why these games can have a limited narrative affect. *Enacting* a story protagonist on screen usually dictates the need to take action, which stresses the motor skills of a player and limits the emotional palette of expression. The recent story exploration game *Firewatch* (2016) is a slight exception in

that players are story-protagonists and use complex conversation trees that allow them to choose what the protagonist says, impacting the subtext and dramatic outcome as a result. Though motor skills are not required in *Firewatch* (the focus is on playing out a relationship through conversation), it faces the problem that player presence at the narrative centre results in long and undramatic walking sequences through a large national park.<sup>11</sup>

Lankoski uses cognitive film theorist Smith (1995) to explore how empathy in storytelling works (2011: 299–305). Smith argues that people interpret fictional characters using the same conceptual framework they use to interpret real people. He claims they *mimic* and *cognitively simulate* affects the characters express and that engagement and emotional attachment in film can be measured in terms of *recognition*, *alignment* and *allegiance* (quoted in Lankoski 2011: 299). *Mimicry* is where a person involuntarily and automatically mimics another person's expressed affects. Experiencing pain when you see someone get hurt, for example. *Simulation* is the use of the hypothetical *as if* reasoning mentioned in the introduction, where people imagine how they would feel in that situation, thereby reproducing a character's affective state in themselves. *Mimicry* and *simulation* are the outcome of the processes of *recognition*, *alignment* and *allegiance* and the operations of empathy—a form of emotional coupling which explains why we fear for a character when we see them in danger. Smith argues that *recognition* depends on the authentic representation of the character. In a playable story scenario, players must recognise the truth in what is represented. Meretzky (2001) has expressed reservations that a character can reveal an inner self when controlled by a player and Frasca has argued “the more freedom the player is given, the less personality the character will have” (2001: 2). These theories suggest that ‘I’ experiences reduce the capacity for *recognition* because player personality is defining character. The theoretical impact of this is a potential absence of empathy, since empathy is about identification with others not oneself. Smith argues *alignment* happens when the audience is given the viewpoint of a character and knows what they want, why and what values are at stake. For empathy to occur through *alignment*, an audience does not need to sympathise with or agree with the character's point-of-view just understand the logic of it. Smith argues *allegiance* is about a positive moral and aesthetic evaluation of the characters. *Allegiance* happens when a character is portrayed as having characteristics the audience can value.

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<sup>11</sup> These sequences are part of communicating the protagonist's loneliness but other narrative devices might have created more dramatic tension and less frustration of player agency (timelapses or jump cuts, for example).

This is related to McKee's (2014) theory of the "Centre of Good," which involves locating a characteristic the audience can approve of (like loyalty) in a character in order to gain audience attachment. It is worth noting that allegiance is not always about positive traits, perverse allegiances can also occur. McKee (1999) argues that players can shift their entire moral sensibility to occupy a world they would ordinarily disapprove of (the violent lives of gangsters, for example) and then look for the Centre of Good, the character who is the best of the gangsters, who loves his wife or children the most, for example. Lankoski argues that *recognition* and *alignment* are prerequisites for *empathic engagement* and *allegiance* depends on both, but you can have *alignment* without *allegiance*. For instance, you can understand a character's logic but not approve of it (2011: 304). It is clear from Lankoski's research that *alignment* can occur in a goal-related game with a player as protagonist of the story. It happens in *Tomb Raider* when players find themselves low on ammo at times Lara is struggling or in severe danger on screen. Player anxiety about lack of ammo in relation to winning the game is *aligned* with Lara's own anxiety about survival from a narrative perspective.

*Tomb Raider* (2013) is a good example of problems that occur when narrative (*empathic emotional engagement*) and gameplay (*self-directed emotional engagement*) are not coupled. Pratchett spent six months reimagining the character of Lara Croft so she was more relatable and relevant than previous versions (2015). Pratchett said in interview that she did not see the problem with "old Lara" being about the size of her boobs but about her not owning her sexuality; not being a figure real women and girls could relate to (2015). The new Lara is not automatically a superhero, the narrative arc is about how she becomes the Tomb Raider and learns to survive. Lara is not the "Little Miss Quippy" of previous versions, works two jobs to avoid any reliance on family money and is vulnerable and shaken by her first kill (Pratchett, 2015). This characterisation activates the process of *recognition*, *alignment* and *allegiance* so players can have empathy with the role they are *enacting*. However, the demand for players to be active in order to fulfil *self-directed* emotional engagement led to a disconnect between the narrative and gameplay after Lara's first kill. Just after Lara is retching and sobbing, expressing how the situation forced her hand and how shaken she is as a result, players enter a sequence where she rapidly kills 16 people. Despite it being an unrealistic progression in Lara's story, this occurred because playtesting revealed that having just acquired a weapon players wanted to use it. The narrative team fought against it and managed to reduce the number of kills from 47 to 16 but then suffered in reviews when crit-

ics and players noticed that the gameplay and physical representation of Lara did not *align* with her narrative character development (Pratchett, 2015).

This thesis does not seek to argue that you can never have *empathic* engagement in ‘I’ experiences but it does suggest that it is often diminished: (1) by the goal-related, high cognitive load in these types of games and the demand for action; (2) by the difficulty of expressing a recognisable self outside of the player via a character who is constructed through the decisions of players in control of it; and (3) because current AI cannot yet power a virtual world that responds with the emotional complexity and authenticity of the real world. One can extrapolate from that conclusion that player presence at the centre of the narrative may limit the ability to create good storytelling experiences. As Murray identified: “When we enter the enchanted world as our actual selves, we risk draining it of its delicious otherness” (1997: 101). That delicious otherness is what creates powerful *empathetic* responses and delivers narrative impact. I should note here that empathy is not selfless. As McKee (2014) argues, empathy is an emotional process through which audience members learn about themselves, “if it’s not happening vicariously to them, they won’t give a shit. They have to identify.”

This thesis will apply the terms *mimesis* and *diegesis* to the player experience in a way they have not been used before. They are usually used to help classify ways of presenting a story but here they will be used to help classify *how* a player experiences a story—the *experiential narrative*. There is some imprecision and confusion amongst theorists about the terms, and Plato and Aristotle themselves had differing views, but in the original Greek, *diegesis* translates to ‘narration’ and *mimesis* to ‘imitation.’ *Diegesis* is how a story is told or recounted (by a narrator, for instance) and *mimesis* is when it is shown or enacted (by actors on a stage, for example). So *mimesis* is a form of *diegesis*. To apply this understanding to the player experience, one can say that when players are protagonists in a fictional world and enact the story, they have a *mimetic experience*; and when players are not at the centre of the narrative but a story is recounted to them as they play, it is a *diegetic experience*. Video games do not, however, limit themselves to these poles and also blend the *mimetic* and *diegetic*, as will be discussed in relation to *Firewatch* in Chapter 2.

Classifying video games as *mimetic* and/or *diegetic player experiences* is a helpful distinction between the ‘I’ and ‘Other’ experiences discussed above. For example, in *Life Is Strange* players are photography student Max Caulfield whose actions *enact* the narrative as it unfolds. Events do not happen until Max, as the protagonist, is there. It is a *mimetic experience*. In contrast, in *Everybody’s Gone To The Rapture*, players do not

know who or what they are when they arrive in a deserted Shropshire village. As they move around the space, what has happened is recounted to them through remembered scenes and *environmental storytelling*. Players do not enact the narrative, they explore and piece it together. It is a *diegetic experience*. Creator Dan Pinchbeck said the studio wanted “to make something that was very much about the idea of agency, about choice, about discovering a story rather than being told a story, and you feeling very much at the centre of that” (2015a). In this Pinchbeck makes a distinction between putting players at the centre of the story and putting them at the centre of the experience, distanced a step from the fiction itself. A comparison between *Life Is Strange* and *Everybody’s Gone To The Rapture* makes this distinction clear. In *mimetic experiences*, the fiction and player experience are entwined; in *diegetic experiences* they are separate layers. Chapter 2 will further explore the impact of these different approaches on player agency.

It could be argued that a game like *Gone Home* is mimetic *and* diegetic because players are a character (Katie) who is having the story of what happened to her family recounted to her as she explores their new home; but, it is primarily a *diegetic experience* because players are not the central protagonist. The protagonist is Katie’s sister Sam whose story is told via audio diaries and environmental details. Player choices and actions as Katie do not change what has happened to Sam and her parents but they do change how those stories are told. *Gone Home* is a non-linear experience where players have control over the order in which they unlock story assets. To return to an earlier distinction between fabula and syuzhet; the authored fabula is a fixed and embedded layer in the space, and the syuzhet is a dynamic layer—open to the possibility of multiple configurations. The potential of different *experiential narratives* according to how players choose to explore is what helps the game deliver a strong sense of player agency. As Smuts argues:

If we alter the order of the chapters in a novel, we change the narration, which is, after all, the conveyance of narrative information. The order in which narrative events are presented is highly relevant to our aesthetic experience of narrative artworks [...] The audience’s ability to control the sequence in which they access the content would be relevant to their aesthetic experience of the object (2009: 61).

This is what *Everybody’s Gone To The Rapture* was capable of delivering in the combination of a vast open world and tightly scripted diegetic scenes. Players had lots of agency over the order in which they experienced scenes but not over the content of the

scenes themselves. That enabled dynamic perception changes of characters. As Pinchbeck describes:

Stephen is a very classic British anti-hero. All the way through the story he's set up as being selfish, self-obsessed, he's aggressive, he sets other characters up, he's cold as ice and does some awful things. If you happen to find a couple of scenes later on, you understand why he's doing it all, suddenly he's a desperate person and the nearest thing to a hero in the game. If you find those scenes first, it'll change the way you feel about Stephen for the rest of the game (2015a).

This shifting understanding of Stephen is a consequence of a *dynamic syuhzet*. As a structure it gives players the agency to choose how they experience the story—a feature familiar from experimental literature, like B.S. Johnson's *The Unfortunates* (1969) and the Wheatley and Links crime dossier books, and that is especially suited to playable stories as an interactive medium.

This chapter has argued that *mimetic player experiences* have drawbacks when it comes to negotiating story and player agency that are related to the types of narrative structure available (linear and branching), the current state of AI and the limited ability to generate empathy. *Diegetic player experiences* are not constrained in the same way. When players are not narrative protagonists there is more opportunity to deliver *empathic* engagement and no fear that player choice will mess with the content of the story. Despite retaining authored control over story content, agency is afforded to players as protagonists of the experience—they choose how they discover and piece story together. An assumption is often made by writers and creators that interactivity equals putting players at the centre of the story; but an alternative approach is to put players at the centre of the experience. This approach can also produce an emergent story—the player's *experiential narrative*.

Playable stories use game mechanics to help create *experiential narratives*. Sicart (2008) identified that Game Studies showed no dominant definition of game mechanics and so developed a definition himself, which defined them as different from game rules. He said:

Game mechanics are concerned with the actual interaction with the game state, while rules provide the possibility space where that interaction is possible, regulating as well the transition between states. In this sense, rules are modeled after agency, while mechanics are modeled for agency.

In *Her Story* a game rule is the database returning up to five clips per search term; while available mechanics are: 'type' and 'search' to reveal video clips; 'watch,' 'listen,'

‘pause,’ and ‘replay’ to gain information; ‘decipher,’ ‘interpret,’ ‘note,’ ‘compare’ and ‘debate’ to solve the mystery. Sicart (2008) argues: “the best way of understanding mechanics as methods is to formalise them as verbs, with other syntactical/structural elements, such as rules, having influence on how those verbs act in the game.” Game maker Steve Gaynor has argued for the need to expand the player verbs available to diversify gameplay and offer more complex character and narrative experiences (Gaynor, 2010 and 2014). ‘Shoot’ and ‘kill’ are verbs with a proven commercial track record in games and have been relied on repeatedly. Gaynor argues that using more unusual verbs like “pray” can offer new angles on story and play (2010). Significantly, the level of agency felt by players does not automatically correlate with the number of verbs available; more relevant is what they are and how they are used. For example, player verbs in *Tomb Raider* (2013) include ‘run,’ ‘jump,’ ‘climb,’ ‘roll,’ ‘dodge,’ ‘aim,’ and ‘fire.’ These express an array of survival techniques that can be *enacted* by players, but all are subordinated to the narrative line player-character Lara Croft is designed to deliver. The story and experience of play are set; if the player verbs are not used correctly, Lara dies and players fail. In contrast, *Gone Home*’s verbs include ‘walk,’ ‘pick up,’ ‘unlock,’ ‘examine,’ ‘read,’ and ‘listen.’ All are means of enabling players to build the story in their own way. There is no fail-state; the player-character Katie cannot die as a result of using verbs wrongly. This enables a wider range of *experiential narratives* than are available in linear and mimetic player-protagonist games like *Tomb Raider*. The majority of verbs used in *Tomb Raider* tap into the instinctual ‘fight or flight’ centre of a player’s brain that governs *self-directed* emotions. The verbs in *Gone Home* tap into the more contemplative part of a player’s brain that operates *empathetically*. *Tomb Raider* is about survival and *Gone Home*’s is about understanding what has happened to a family. *Gone Home*’s choice of player verbs puts narrative affect and player agency on a level footing.

Ryan’s (2015b) taxonomy of interactive modes can help clarify some of the distinctions that have been made in this chapter in relation to player roles in playable stories. Her categorisations are a useful framework through which to view one of the claims of this thesis in relation to digital playable stories in the current technological climate: that narrative and player agency is negotiated well when players are at the centre of the experience, not the story. Ryan’s taxonomy relies on two dichotomies:

## (1) *Internal* versus *External* to the storyworld

When the user of an interactive text plays the role of an individuated member of the storyworld, interactivity is internal [...] when she does not imagine herself as a particular member of the storyworld, or when she controls the storyworld from a godlike perspective, interactivity is external (2015b: 162).

## (2) *Ontological* versus *Exploratory*

In exploratory interactivity, the user looks at what exists in the storyworld but has no creative power. Her involvement with the storyworld has no lasting consequences. In the ontological variant, her actions create objects that become part of the storyworld or cause events that bring lasting changes. The storyworld evolves as a result of the interaction (2015: 162).

This distinction is similar to the difference between *mimetic* and *diegetic* player experience made in this thesis. *Mimetic experiences* give players an ontological role as a protagonist in the fiction—the real-time story is shaped around their actions. In *diegetic experiences*, players are not protagonists—the story is told retrospectively; their actions change how the story is experienced but not the content. Ryan's dichotomies are a helpful way to bring the ideas explored in this chapter together, but the assertion that a player in an exploratory role has no creative power has already been discounted. Player agency over how a story is told does have an aesthetic impact that can effect meaning and interpretation, as well as creating *experiential narratives*. A player of *Her Story*, for example, would argue that the ability to freely choose search terms and piece together evidence is creative. Ryan cross-classifies the above dichotomies into four modes of interactivity, which help show various ways players can be positioned in relation to the narrative:

### (1) *External-Exploratory*

The user is external to both the time and space of the virtual world. There are no time limits to the user's actions; these actions do not simulate the behaviour of a member of the virtual world; and interactivity is limited to the freedom to choose routes (2015: 162–163).

*Everybody's Gone To The Rapture* and *Dear Esther* (both made by The Chinese Room game studio) are *External-Exploratory* playable stories. Players are external to the time and space of the storyworld, existing like a floating camera that can be directed according to player will. Players are able to move around the world and uncover embedded



story that is not changed by their interactions. Players are building the story rather than enacting it and *experiential narratives* are created by their own non-linear journeys of discovery.

## (2) *External-Ontological*

The user creates the storyworld from a remote, godlike perspective, typically selecting elements from a menu. Since the player controls several entities, he does not identify with any of them but rather plays the role of puppetmaster who holds the strings of characters, choosing their properties and making decisions for them. The system computes the consequences of these decisions and generates sequences of events that might surprise the player (2015: 163).

*The Sims* and *Minecraft* (2011) are *External-Ontological* playable stories. Players create the storyworld from a godlike perspective, their decisions interacting with the system to create unpredictable ontological outcomes for characters in the fiction. This is the category most associated with AI-driven, procedurally-generated and emergent experiences and has played a limited role in my creative practice because I am not a computer programmer and approach playable stories from a creative writing perspective.

## (3) *Internal-Ontological*

The system (which can be a computer program or human game master) projects a storyworld, and the user impersonates and sometimes creates an individuated member of this world [...] The narrative is created dramatically, by being enacted, rather than dietetically, by representing past events (2015: 164).

*Tomb Raider* and *Life is Strange* are both *Internal-Ontological* playable stories. Players take on the role of the protagonist (Lara or Max) and enact the story mimetically in real-time.

## (4) *Internal-Exploratory*

The user experiences the storyworld from the inside, that is, from a perspective that reflects the embodied point of view of one of its members, and she is able to move around the world, play tourist, pick up objects, look at them, even alter her perspective, but she has no power to change anything (2015: 164).

Ryan claims the *Internal-Exploratory* mode is uncommon but she has missed the rise of story exploration games in her assessment. *Gone Home* and *Her Story* are both *Internal-*

*Exploratory* playable stories. Players are given a viewpoint from inside the world (as the protagonist's sister Katie or as the protagonist's daughter Sarah) and are able to explore (a house in *Gone Home* and a police database in *Her Story*) in multiple ways to uncover *embedded* story that is not changed by their interactions. Players are building the story rather than enacting it and *experiential narratives* are created by their own non-linear journeys of discovery.

Chapter 2 will conduct a closer analysis of playable stories in these interactive modes, comparing and contrasting digital playable stories, live playable stories and digital-live hybrids to develop its argument about writing methods to negotiate narrative and player agency. This chapter has sought to navigate the academic debate around playable stories to lay the groundwork required to understand how creative writing can respond to the challenges and opportunities in the field. Its concluding focus on Ryan's modes of interaction is the basis of a theoretical framework that will be considered in relation to the structures of *fabula* and *syuzhet*; the narrative techniques of *evoked*, *environmental*, *enacted*, *embedded*, *emergent* and *epistolary*; the immersion types *spatial*, *temporal*, *epistemic* and *emotional*; and how these elements impact on story and player agency. The close analysis of texts will also be supplemented by further insights from the primary interviews conducted with practitioners, all of which will help to elucidate the creative decisions made in my own playable story *Underland*, which are then detailed in Chapter 3.

**A Close Analysis of Existing Writing and Design Practices, Methods and Interactive Modes in Playable Stories**

A close analysis of playable stories in the interactive modes *Internal-Ontological*, *Internal-Exploratory*, *External-Exploratory* and *External-Ontological* can help develop the argument this thesis makes about how writers and creators can negotiate narrative and player agency in playable stories. The analyses featured in this chapter were developed out of a Comparative Table of Playable Stories constructed to compare and contrast writing methods in digital, live and live-digital hybrids. As established in Chapter 1, the *External-Ontological* mode is less relevant to this thesis because of its technological approach to storytelling and so does not feature.

*The Stanley Parable* (2013) is a video game about video games and acts as a metaphor for the tensions apparent in the *Internal-Ontological* mode. The marketing top line reads: “The Stanley Parable is an exploration of story, games, and choice. Except the story doesn’t matter, it might not even be a game, and if you ever actually do have a choice, well let me know how you did it.” It is the story of a man named Stanley who works in a generic office complex. The set up is reminiscent of *American Beauty*’s Lester Burnham, *Fight Club*’s unnamed narrator and *The Matrix*’s Thomas A. Anderson (aka. Neo), who break free of their white-collar workplaces in the course of their stories. It is also a mod (short for modification) of the critically acclaimed *Half-Life 2* (2004) game where the player-protagonist Gordon Freeman is an MIT theoretical physics PhD graduate who ends up, like Stanley, in an office pushing buttons that require no intellectual expertise. *The Stanley Parable* uses the environment of *Half-Life 2* but removes the first-person shooter mechanics and offers a different narrative and gameplay to create a standalone game. In the course of *Half-Life 2*, Freeman becomes a legendary resistance fighter who leads an uprising against alien invaders. After this heroic rise, the omniscient G-Man, who has been watching Gordon’s every move, puts him back in stasis for later use. The game was praised for its innovation in narrative because it did not use cutscenes but remains a linear ‘railroad’ experience that offers an illusion that players are in control of how the narrative unfolds. It made its own joke about this by having Gordon start the game on a train. *The Stanley Parable* makes ironic comment on the illusion of player agency in the *Internal-Ontological* mode and this state of storytelling in games. Its use of the *Half-Life 2* storyworld forms part of this critique.

Players are Stanley, an office worker who happily monitors data and presses buttons on a computer all day when the orders suddenly stop and the screen goes blank. Unsure what to do he explores the office building accompanied by a God-like narrator. The narrator tells Stanley exactly what to do: “head to the meeting room” or “take the left hand open door,” for example. If Stanley follows these instructions he reaches the “Mind Control Facility” within 10 minutes where he presses the “off” button and is released into the “Freedom Ending.” This ending leads Stanley into a tree-lined field with a path leading into the unknown—an escapist image that has been depicted in paintings on the office walls. The narrator comments that Stanley is now free and happy, the screen turns white and players respawn back in Stanley’s office at the start. The irony is that Stanley is not free at all. He has reached this happy and heroic ending after blindly following the narrator’s directions and obvious visual clues in the form of lit pathways and arrows. The ‘golden pathway’ (critical path) has led to winning the game but has nothing to do with player agency. The game’s ‘hero’s journey’ is underpinned by an illusion of freedom: players win but they are not free. Instead, they have enacted everything the game intended. This comments on linear adventure and shooter titles (like *Half-Life 2*) that project a myth that players are in control of the development of the story and that their agency defines their heroism. It pulls the curtain back to show they remain drones in a narrative system pressing buttons as directed.

*The Stanley Parable* (2013) has 25 possible endings based on player choice (Rambling Fox, 2014). Each choice and ending is commented on by the narrator and at the end of each players respawn back at the start.

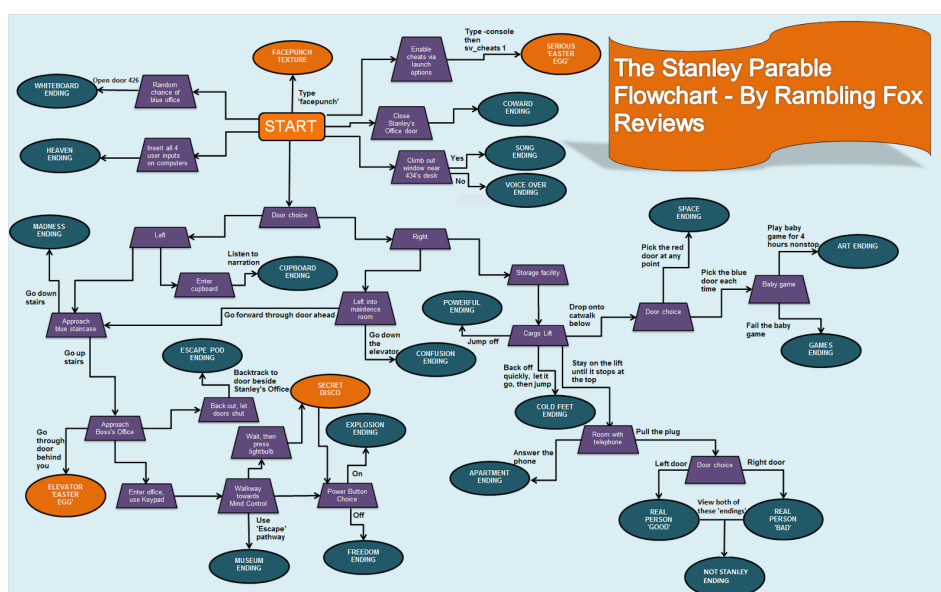


Figure 13: Flowchart guide to all endings in *The Stanley Parable* (Rambling Fox, 2014)

For example, if Stanley defies the narrator's instructions he will quickly reach the "Powerful Ending" where he jumps off a cargo lift and dies, accompanied by the narrator's comments: "in his eagerness to prove he is in control of the story and no one gets to tell him what to do, Stanley leapt from the platform and plunged to his death. Good job Stanley, everyone thinks you are very powerful." Alternatively, if a player chooses to do nothing, the narrator will say: "Stanley stood still, he wants to see how long he can stay alive but that's all part of the game isn't it, let's observe the genius at work." In each ironic commentary the narrator is revealed to be in control and a player's lack of power, autonomy and agency is exposed. It is a nihilistic reflection on the nature of choice and decision-making in games and a comment on how narrative overrides player agency in the *Internal-Ontological*, player-protagonist, *mimetic* mode. As with all games structured around the player-as-story-protagonist, *The Stanley Parable* presents an illusion that players are in control of how the story unfolds by giving them control of the protagonist. Unlike other games it subverts rather than maintains that illusion to comment on the dominant storytelling tropes in video games and offer an alternative. The narrator's voiceover makes it clear that player agency is limited to serve narrative goals; any choice players make is offered and defined by the story system. This exposes a fallacy that games in the *Internal-Ontological* mode empower players to use their agency to shape a story around them. As discussed in Chapter 1, this promise of the holodeck is not yet achievable because of the limits of AI. *The Stanley Parable's* writer Davey Wreden does not pretend otherwise. Instead he uses the limits of the form to express narrative meaning.

*The Stanley Parable* is an 'I' experience that turns the *self-directed* emotions of triumph at winning and beating the game on their head. Instead of being rewarded for jumping through narrative hoops and doing what the game asks, players are ridiculed for being trapped in an unforgiving system that limits their own expression. The *self-directed* emotions are not of triumph but despair. This is an effective way to use the *Internal-Ontological* mode: bypass the illusion of player choice and throw into relief the limits of agency to serve meaning. Where game makers like Crawford (1992, 2015) call for a broader spectrum of emotions in games through the expression of player agency, Wreden achieves it by revealing lack of player agency. He does this is by blending the *mimetic* player experience with the *diegetic* voice of the narrator whose commentary exposes the limits of mimesis in digital forms. *The Stanley Parable* admits that the consequence of putting players at the centre of narratives in the *Internal-Ontological* mode is that they are interpellated into a pre-scripted subjectivity. This is arguably Wreden's

critique of the dominant mode of storytelling in games. Part of *The Stanley Parable's* narrative pleasure is its recognition of other 'unsanctioned' ways of being in the game. For example, in the "Madness Ending" players find themselves stuck in a never-ending loop of rooms as the narrator comments on how Stanley has gone insane. In the "Cupboard Ending," the narrator berates players for being stupid enough to lock themselves in the broom closet and assumes they have died at their computer. There is delight in how the narrator recognises what players chose to do, even if it is fatalistic or he disapproves. Video games overwhelmingly 'approve' one particular expression of character: the powerful hero; and rarely explore the narrative possibilities of a protagonist who takes a wrong turn or is scared. This has to do with the prominence of the shooter mechanic. When the game mechanic is a means to express dominance and mastery over the world the narrative path tends to match. *The Stanley Parable* raises the prospect of taking character development down routes other than protagonist-as-hero.

The preoccupation video games have with suggesting players are in control of the narrative world they are inhabiting has seen a reliance on the protagonist-as-hero trope. Player-protagonists who can fix all problems, always find the answer and get everything they want are used as a means to express player mastery over the storyworld, and hide a fundamental lack of agency in the narrative. This seeming fear of exposing the truth of the *Internal-Ontological* mode brings with it a host of ancillary drawbacks in narrative terms. Game Writer Meg Jayanth (2016) claims developers worry players will be turned off by experiencing a protagonist's loss, confusion, stupidity or failure because they believe no one wants to play a loser. She says: "That's something that seems true but I don't think it is. Actually it's winning all the time that seems fake." Jayanth argues that instead of making "entitlement simulators" where events and relationships are a transactional means to progress towards a goal, games need to ditch power fantasies and find ways to "limit, hurt and stymy" protagonists. "Whoever heard of that great novel where the protagonist got exactly what they wanted all the time," she argues, adding that there is a reason why Truman in *The Truman Show* (1998) wants to escape rather than "jack further in" when he realises everything is falsely designed around him. Truman wants real and messy, not perfect. The form and content of *The Stanley Parable* asks the question: what would happen if games dropped a pretence that players are in control of the narrative in the *Internal-Ontological* mode and allowed them to inhabit other ways of being that are more realistic? As Jayanth (2016) argues: "Structural centrality and assumptions about what it means to be a games protagonist and have agency can lead us to unwittingly reinforce unhelpful cultural norms." She calls for games to stop treating

protagonists as automatically powerful and to create NPCs with independence that cannot be overwritten by the protagonist or plot. She claims this is vital to the progress of games narrative as a craft and video games as a medium, arguing:

We need to come to an almost entirely new understanding of the meaning of protagonism and agency and to find a definition of agency that can assimilate a loss of control, of protagonism that works outside of primacy, of games that can function outside of entitlement (Jaynath, 2016).

Jaynath's comments and an analysis of *The Stanley Parable* reveal that the *Internal-Ontological* mode is a structure where player agency is subordinated to authored narrative. They suggest that rather than attempting to maintain an illusion of agency, diversifying the options written for players will create better narrative experiences.

The 2016 story exploration game *Firewatch* offers an implicit critique of storytelling modes in games that builds on this analysis of *The Stanley Parable*. The protagonist of *Firewatch* is Henry ('Hank') a middle-aged man who has lost his wife to early onset dementia and disappears into the Wyoming wilderness to escape his problems and man a fire lookout tower for the summer. The game can be interpreted as ultimately about the impossibility of escapism and a need to face the reality, hardships and challenges of life. This theme also provides a means to interpret the interactive mode and its narrative affects. *Firewatch* is primarily told in the *Internal-Ontological* mimetic mode. For the majority of the game players operate the protagonist Hank as he undertakes his job at Two Forks in the Shoshone National Forest. There are several distinguishing things about this that reveal the limits of the interactive mode. The game projects an illusion of presence in the continuous 3D world of the national park and suggests that player action will push the narrative forward. In reality, it relies on onscreen directions like "enter lookout tower" or "turn on power" to keep players on the narrative path. It also wrests control away from players to deliver narrative in ways similar to cutscenes. For example, in the opening conversation with supervisor Delilah, the nearest fellow lookout who Hank communicates with via radio, players are forced to stop and listen to an exchange they are apparently participating in. This creates a ludonarrative dissonance (a conflict between a video game's narrative premise and gameplay) that hampers immersion and breaks *flow*. The bulk of the story covers a period of 79 days in the summer of 1989 (in a play time of about six hours) but players must still complete long and slow walking sequences to progress the narrative. These features reflect the issues encountered when players are at the centre of the narrative: real-time sequences with



avatars wandering aimlessly through 3D space and ‘spoon-fed’ narrative that limits agency.

*Firewatch* is a broadly linear narrative. The handheld radio’s dialogue tree provides options for players to select what Hank says to Delilah and change the tone of the relationship, but not the overall development or outcome of the story. *Firewatch* uses the *evoked narrative* of ‘man alone in the vast wilderness’ to tap into players’ collective narrative unconscious and suggest danger is imminent. Coupled with the shadowy figure watching from precipices, the mysterious disappearance of teenage girls, Hank being attacked and having his tower ransacked and the strange surveillance station in one of the valleys that is monitoring his radio communications, there is an effective construction of mystery and suspense that helps compel players. However, the stronger emotional impact is achieved via diegetic means when the interactive mode becomes *Internal-Exploratory*. The game opens with a *diegetic* text and sound sequence covering the period 1975–1989 and telling the backstory of Hank meeting and marrying college professor Julia. The text addresses players as Hank and provides binary choices to help define him. For example, when Julia’s dementia had taken hold and Hank wanted to go out drinking did he “trust that she would sleep like a rock” or “put a chair up against the bedroom door”? The options on offer are not the instinctively heroic ones players often expect from games and provide some aesthetic distance that allows reflection on the kind of man Hank is. Ultimately, he is characterised as a selfish person who did not support Julia’s career or acknowledge that Julia wanted kids. Whatever options players choose, the outcome remains the same: Julia’s family move her back to Australia so they can care for her and Hank abandons her and heads into the Wyoming wilderness for the summer. As the story unfolds in Wyoming the contrast between the *mimetic* and *diegetic* player experience reflects some of the tensions around storytelling in video games. In the *mimetic* tract of the story, Hank and Delilah get wrapped up in a mystery that relies on video games’ propensity for science-fiction conspiracy plots to generate suspense. They begin to believe that two teenage girls have been abducted and murdered in the forest and that they are under threat and being monitored by a nefarious government organisation, operating out of the Wapiti surveillance station, that wants to prevent them finding out about their surveillance methods and research into UFOs and aliens. The *diegetic* storytelling tract, told through the *embedded narrative* of objects, notes and audio recordings, reveals another tale entirely.

In the *Internal-Exploratory* diegetic mode, where players attempt to solve the mystery of who is watching Hank and Delilah and why, they find the hideouts of Ned and

Brian Goodwin and Brian's dead body. Ned is a war veteran with PTSD who was a previous firewatch and brought his 12-year-old son Brian out with him for a summer. Through the objects, notes and audio recordings in the hideouts players discover that Brian, who did not like climbing, died in a climbing accident. This caused Ned to abandon his post and hide in the forest for three years to avoid investigation. The diegetic storytelling, in objects like Brian's Father's Day card to Ned, switches the emotional immersion from *self-directed* to *empathetic* and requires players to do imaginative work to piece information together. In an exploration through the diegetic material, players discover that when Ned accidentally ran into Hank he feared his cover was blown so began to weave a threatening conspiracy around him to gaslight and distract him from finding the truth. Hank and Delilah readily embraced the conspiracy narrative in an bid to be distracted from their own problems and realities: Hank his poor treatment of his wife and Delilah how she is using alcohol to cope with the fact she abandoned her boyfriend when his relative died. In the climax, Ned sets fire to the Wapiti surveillance station (revealed to be a university research post) to drive Hank and Delilah away. The story *Firewatch* tells *mimetically* is one where murders, government conspiracies and potential alien invasions abound. The story *Firewatch* tells *diegetically* is about how ordinary people cope with tragedy. The Wyoming wilderness, which the in-game postcards bill as "wild and free," is a representation of the escapist fantasies games offer using the *Internal-Ontological* mode, where players can disappear into a world that is all about them, and usually about how they become heroes. This is the choice Hank makes: abandon Julia, escape into the wilderness, pursue a new romantic fantasy with Delilah and uncover a government conspiracy. At the beginning of the game he says: "I came out here for a breath of fresh air and some adventure." These allures of the *mimetic* world are revealed as fake by the *diegetic* player experience when the game flips to the *Internal-Exploratory* mode. They are shown to be escapist fantasies of self rather than about sustainable relationships with others. The theme revealed diegetically is the hopelessness of the escapist fantasy worlds predominant in video games.

The blend of *Internal-Ontological* and *Internal-Exploratory* modes in *Firewatch* can be used to explore an argument for better storytelling in games. In *Firewatch*, there is no grand conspiracy or Boss pulling the strings that players can defeat, only inescapable human realities. Hank, Delilah and Ned are all attempting to escape their hardships, problems, challenges and mistakes and the game shows their need to face up to them. The *mimetic* and *diegetic* player experiences echo each other and pair *self-directed* and *empathetic* engagement to reinforce themes around how people cope with

tragedy and the futility of running from reality. The inadequacy of escapism is tied to the inadequacy of the *mimetic* mode as a form of storytelling in *Firewatch* and can be interpreted as a critique of the video game industry's focus on hero fantasies rather than relatable characters and stories about relationships with others. It is also a critique of structuring narrative around player centrality via the *mimetic* mode, rather than exploring stories other than a player's through the *diegetic* mode. In *Firewatch*, *emotional immersion* is better achieved through the *embedded*, rather than *enacted*, narrative. There is no player frustration at being narratively controlled, as is necessary in the *mimetic* mode, because the player is not at the centre of the story. This makes a case for powerful narrative affect in the *diegetic* player experience of the *Internal-Exploratory* mode.

The case that games can move away from player centrality and presence in the narrative in order to achieve powerful narrative affects is something illustrated by Davey Wreden's second game *The Beginner's Guide* (2015). The follow up to *The Stanley Parable* uses the *Internal-Exploratory* mode and a *diegetic* player experience as a means to understand someone else's struggles. Davey himself is the narrator and invites players to experience a series of short games made by his friend, Coda, as a way to understand what was going on in Coda's head at the time of making them. The games Coda created, 2008–2011, were never released and either deleted or archived but Davey thinks that is a shame. He fears that Coda is isolated and depressed and gives players access to Coda's computer to see what they think, hoping their thoughts will encourage him to start making games again. The game demos are presented in the literary form of 17 chapters and players can move freely about them but are not characterised as the story-protagonist. There is no foregrounding of the player role, no illusion of agency, freedom or autonomy, no sense the game is a player's story to tell. Players are there to gain an insight into Coda's mind. In the opening address from Davey Wreden, where he thanks players for taking the time to listen and try to understand, he offers up his personal email address to send him thoughts and says: "I want us to see past the games themselves. I want us to get to know who this human being really is." The explicit aim is not to enable players to achieve a goal but to generate empathy.

*The Beginner's Guide* has a linear progression but player frustration at being railroaded is irrelevant because it is not a *mimetic* 'I' experience. When the narrative centre is located outside players complaints about being made to jump through narrative hoops become null and void. It is also very easy to pause, replay, switch between chapters and move around within them, which provides agency over the experience of play, as dis-

tinct from the story. The main themes of the game demos are loneliness, isolation, fear, artistic creation versus the seduction of external validation and approval, identity, means of expression, asking questions rather than providing answers, and using the form to reflect on the human condition rather than as escapism. Davey's voiceover narration contextualises the content and form of each of Coda's game demos. The early chapters focus on Coda's state of mind in relation to the creation of games and tackle familiar topics from *The Stanley Parable* about moving beyond the hero's quest and offering rewards other than the goal-directed win-state—though each opens itself to multiple interpretations. By “Chapter 4: Stairs” players are getting deeper insights into Coda's personality. This chapter features a barren plain surrounded by sky, with a long staircase in the centre leading up to a tower. As players climb the stairs their pace slows to a crawl so they cannot reach the door ahead. This is when Davey steps in to modify the speed so the door opens and they can enter the “warm” room at the top of the tower that is filled with ideas for games. Davey provides the bridge between Coda and the outside world. The combination of his contextualising narration, and the game space as a representation of Coda's mind, makes comment on the journey to get to know someone. Davey tells how Coda is often perceived as cold and distant like the tower but is actually warm and vibrant and full of ideas. Playing this demo becomes a way to get to know how Coda feels about himself and is a means to generate empathy with his experience.

Throughout *The Beginner's Guide* is the recurring motif of the “puzzle door.” In “Chapter 8: Notes,” Davey describes it as the means Coda uses to close off an idea or chapter in his life. He says it brings comfort because it provides “a reliable solution” and “a simple mechanism for moving on.” “Chapter 13: Mobius” takes on this symbol of the puzzle door. The chapter is a short action sequence set on a space ship where players see a puzzle door hurtling towards them; their job is to stop it or it will crash into the ship and restart the level. On the ship are crew members with boxes for heads that have the words “Blind” and “Research” emblazoned across them. The “Blind” ones are asking what is going on and bemoaning why they cannot see. “Research” is propped against the window saying “I can't die like this” and “am I going to be killed by a giant door.” They are metaphors for how Coda feels making a game. The solution is to take a lift up to the next level where players find another crew member with “Truth” for a head. Text appears on screen that reads: “the only way to stop it is to speak something that's truthful.” Players are then given three options: “1. I'm bursting with creative energy; 2. I can't keep making these things; 3. My work is always fun.” If players select 1 or 3 the response is: “No, no, that isn't truthful,” the door crashes into them and the lev-

el restarts. If they select 2 the response is: “Yes! That’s it! That’s the truth!” The door is stopped in its tracks and players get three options to expand: “1. I don’t feel it any more; 2. I’m out of ideas; 3. It’s draining me.” Any of the options elicit the response: “Keep going! Keep talking!” This leads to three more options: “1. I haven’t been honest; 2. I can’t figure out how to say the thing; 3. I thought it was going to be easy.” Again any option elicits the same response: “You’re doing it! It’s working!” Then there are three final options: “1. I’m alone; 2. I’m stuck in it; 3. I have to work harder.” Any selection elicits the response: “We’re going to be okay” and the demo ends. This chapter’s explicit access to Coda’s thoughts implies that there is no easy puzzle door solution and that the only way to survive is to speak the truth. This can be interpreted as a critique of games and their reliance on knowable solutions, and also as Coda’s realisation in relation to narrative affect: truthful responses offer more opportunity for player *recognition* and *alignment*, which generates empathy. Players can also recognise how desperate Coda feels via the anxious soundtrack and the time limit before the puzzle door crashes in. They *embody* his state of being by playing. This sense of existential desperation is reinforced by Davey’s concluding narration which describes how Coda was becoming a lot more disconnected at this point in his life and his games were taking more time to finish. The form and content of the demo work together to express a complexity of emotion that is relatable and offers a deep gaming experience.<sup>12</sup>

The other chapters in *The Beginner’s Guide* also use poetic mechanics as metaphors for Coda’s psychology, and tackle complex emotional issues including the quest for perfection, the assumption that other people ‘have it sorted,’ needing to move away from external influences in order to make something true to your vision but also craving validation and approval. What transpires in the playthrough is that Coda and Davey are most likely two sides of the same person. Coda the private creator who pushes people away and Davey the public persona that needs social validation and connection. Davey expresses how he wants Coda to keep making games because it helps him to see himself. Meanwhile Coda is irritated by other people foisting their interpretations on his work. It becomes clear that their relationship has broken down because Coda is angry at Davey’s need to show other people his work and make it accessible; while Davey is concerned that Coda will become increasingly more isolated and self-destruct if he does not. Davey hopes that by reaching out to others and sharing Coda’s point-of-view Coda will realise people are helped by seeing themselves in the difficult truths he has repre-

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<sup>12</sup> ‘Deep gaming’ was a term mentioned in Chapter 1 and coined by practitioners and commentators calling for games that explore complex human emotions and empathy.

sented, which will motivate him to start creating again. In the game's final chapter Davey says: "I feel like a failure when I can't fix the problem. But I can open this door for you, so let me do that." In their quest to find and represent the answers (the solution represented by the puzzle doors) Coda and Davey have found there is none and all they can do is pose questions to players. The game is about simple human *connection* and *recognition* and it achieves this powerful narrative effect by presenting players with a world where they are not at the narrative centre. Instead of being endowed with the power to solve and win, players are given the opportunity to explore and empathise. In the process of learning about the complexities of Coda and Davey's friendship they have the chance to recognise themselves.<sup>13</sup>

These three story exploration games: *The Stanley Parable*, *Firewatch* and *The Beginner's Guide* are a means to flesh out writing and design methods that negotiate narrative and player agency. *The Stanley Parable* shows that player agency in the *Internal-Ontological* mode will be limited to authored storytelling (until AI-complete challenges are surmounted). It suggests that better narratives can come from dropping a pretence of agency to fulfil heroic fantasies for players, and instead using constraints on agency to offer a more realistic subjectivity for players to inhabit. *Firewatch* reveals the problems of the *mimetic* mode in relation to pacing and railroading and a reliance on escapist fantasies of self. The *diegetic* player experience in *Firewatch* enabled the communication of more narrative depth and complexity of experience. *The Beginner's Guide* reinforces the power of removing the player from the narrative centre of the game and using the *diegetic* form as a means for players to explore other people's stories and generate complex emotional affects associated with empathy. The next section of this chapter will move onto examples of playable stories in the *Internal-Exploratory* and *External-Exploratory* modes to analyse how they negotiate narrative and player agency. Before moving into that analysis, it is worth giving a brief overview of why some methods and forms of digital narrative were considered but discounted as ways to progress the creative project of this thesis.

Video games have formed the primary reference material because they are the most advanced texts to study in relation to digital narrative. Their economic capital, distribu-

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<sup>13</sup> Some reviews of *The Beginner's Guide* have discussed it in relation to Davey Wreden's personal experiences after the phenomenal success of *The Stanley Parable* where he got huge recognition and then fell into depression and did not know how to move forward (McElroy, 2015; Matulef, 2015; Bryd, 2015). I have not gone into this biographical interpretation because the focus of this thesis is very specifically on the impact of moving players out of the centre of the narrative. The relevance of that can apply to any interpretation of the text.

tion platforms and large audiences have facilitated innovation in storytelling and they are increasingly more relevant with improved digital literacy. Analyses of locative narrative and hypertext proved less useful and so are not covered in detail. Locative narrative, transmedia and digital-performance hybrids are something that I have experimented with in my practice but limiting audience access to physical places, or splitting attention across platforms, was not a sensible commercial decision for this work. The various stages of evolution of *Underland*, which included its conceptualisation as a transmedia or multiplatform project, will be discussed in Chapter 3. Since Hypertexts (and electronic literature in general) tend to be text-heavy and often do not take advantage of the visual affordances of digital mediums it was not considered a suitable approach. There were also other drawbacks to the Hypertext form that helped to point different ways forward. Hypertext Fiction uses the *External-Exploratory* mode. Players click through lexia of text via hyperlinks, choosing their own paths through a branching and networked structure. *Patchwork Girl* (1995) is a famous example that tells the tale of a female Frankenstein's monster. Black and white illustrations of female body parts and short text extracts are linked together in a flow chart to tell a story; except it is difficult to decipher the story, or for players to orientate themselves within it. Players cannot bookmark their place (this is rudimentary via 'save points' in video games); there is no frame to show where players are in the text (compared to *Her Story* where you can check how much of the database you have uncovered or *Gone Home* where you have a map of the house to guide you); players find themselves looping through sections of a flow chart unsure where the story starts or ends and unable to tell which lexia they have already read. This lack of a textual overview (or HUD) makes it hard for players to feel agency over their experience, this breaks *flow* and players quickly become alienated.

Disorientation and indeterminacy is something that has been celebrated about Hypertext Fiction as an enactment of poststructuralist literary theory. The Electronic Literature Organisation (ELO), which publishes most of this genre of work, styles itself as a literary movement. One of the founding board members of the ELO, Stuart Moulthrop, said:

Seen from the viewpoint of textual theory, hypertext systems appear as the practical implementation of a conceptual movement that [...] rejects authoritarian, "logocentric" [i.e., truth-affirming] hierarchies of language, whose modes of operation are linear and deductive, and seeks instead systems of discourse that admit a plurality of meanings where the operative modes are hypothesis and interpretive play (1988).

This foregrounding of form over content, and system over story, is why Ryan (2007, 2015a) locates hypertext in the “avant-garde” *North Pole* of digital narrative, with the associated disadvantages in relation to audience and economic appeal. The practice developed in this thesis was keen to move into the *Temperate Zone* and hold open the possibilities of multiple interpretations but also empower players to have agency over their experience. As Murray put it, the form of hypertext is “anything but empowering to the reader” (1997: 133). She said:

In trying to create texts that do not “privilege” any one order of reading or interpretive framework, the postmodernists are privileging confusion itself. The indeterminate structure of these hypertexts frustrates our desire for narrational agency, for using the act of navigation to unfold a story that flows from our own meaningful choices (133).

Murray argued this in 1997, some 15 years before the emergence of the commercially and critically successful story exploration games which realise her vision of “stories that are goal driven enough to guide navigation but open-ended enough to allow free exploration and that display a satisfying dramatic structure no matter how the interactor chooses to traverse the space” (134–5). Story exploration games have a similar non-linearity to hypertext but tell clear stories and fully exploit the visual and aural affordances of digital. They also have ‘save points’ and provide a clear navigational framework to orientate players and offer agency over their *experiential narrative*, which aids a feeling of *flow*. *Everybody’s Gone To The Rapture* provides a map of the valley showing the six areas players can explore. It also associates each area (the village or farm, for example) with an individual character so players can move through them like chapters. *Her Story* has an icon on the police desktop where players can check how many video clips they have uncovered and sense their progress. It also has a clear navigational framework in the form of a police database search screen. The search terms players enter have an obvious impact on which video clips are revealed. *The Beginner’s Guide* has a chapter list for the short game demos and players can select to play any chapter at any time. *Gone Home* has an inventory with a map of the house, a log of all Sam’s journal entries (so players can go back and listen again) and a visualisation of items players have collected. In the episodically structured *Life Is Strange*, the navigational view gives players access to Max’s journal entries to recap events but also shows players how their choices compare to others in percentage terms at the end of each episode. In hypertext there is no way to measure if player choices matter. These aesthetic frames help to invite players



into the experiences, provide a textual overview and system of reward that reassures them of their agency in the experience. The Devon & Cornwall police remote server interface is *Underland's* version of this frame, or HUD.

Another feature of story exploration games is their shorter playtime in comparison to mainstream AAA titles. *The Witcher 3: Wild Hunt* (2015) which won a slew of awards, including 'Game of the Year' at The Game Awards 2015, has a 133 hour playtime, whilst the AAA title considered in most detail by this thesis, *Tomb Raider*, has an average playtime of 16 hours. *Gone Home's* average playtime is two hours, *Her Story* three hours, *Everybody's Gone To The Rapture* six hours, *Firewatch* five hours and *The Beginner's Guide* one and a half hours. *Life Is Strange* may run to 17 hours but that is broken down into five episodes released at two to three month intervals. That puts them closer to the time it takes to read a novel and opens them up to new audiences.<sup>14</sup>

This chapter has so far tackled how story exploration games have the ability to generate 'deep gaming' experiences and complex narrative affect by switching from *mimetic* to *diegetic* mode (or combining the two) and by moving away from the idea that the player has to be the protagonist of the narrative; but it has not looked specifically at what constitutes a good experience of agency. The next part of the chapter will consider how making players protagonists of the experience, rather than the story, can achieve that. Video games have taken some lead from theatre in developing new models of agency in the story exploration game form. *Gone Home* makers The Fullbright Company have noted the influence of Punchdrunk on their work and the theatre company also provided some clues for the development of *Underland*.

Punchdrunk's work falls within Ryan's conception of a cultural *Temperate Zone*. It does not have the mainstream, popular appeal of a West End or Broadway musical but it is not so avant-garde as to eschew established dramatic structures entirely. In Punchdrunk's own words on its website, its format "rejects the passive obedience usually expected of audiences" (Punchdrunk, n.d.). Audiences enter spaces designed with cinematic detail and are free to touch and examine all the props, choose what to watch, where to go and when. Punchdrunk make playable stories in the *Internal-Exploratory* mode. *Sleep No More* (2003, 2009, 2011, 2013b, 2016) and *The Drowned Man: A Hollywood Fable* (2013c) are the most famous of the 18 shows the company (formed in 2000) has delivered so far. *Sleep No More* is an adaptation of Macbeth presented as a

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<sup>14</sup> The average time to read *The Great Gatsby* has been recorded at 2.62 hours; *To Kill A Mockingbird* at 5.51 hours; *Rebecca* at 8.49 hours; *The Girl With The Dragon Tattoo* at 9.19 hours and Jayne Eyre at 10.21 hours (Davis, 2014). All average gameplay times are taken from gamelengths.com.

Hitchcockian noir thriller and now set in The McKittrick Hotel inside a New York warehouse (a McKinnon Hotel version is due to open in Shanghai in December 2016). *The Drowned Man* was influenced by the unfinished Georg Büchner play *Woyzeck* (1879) and drew on other sources including Nathanael West's novel *The Day of the Locust* (1939) and Ray Bradbury's novel *Something Wicked This Way Comes* (1962). It was a collaboration with the Royal National Theatre and staged in an old Royal Mail sorting house in London that was transformed into Temple Studios, a 1960s Hollywood lot. *Sleep No More* is a wordless play, told in dance over six floors, with Macbeth as the central protagonist and 21 characters in total. The conceit is that the space is a 30s hotel, the entrance resembling a lobby and reception; but, inside there are more than 100 rooms that include a hospital ward, a cemetery, a ballroom, a detective agency, a sweet shop, apothecary and children's bedroom. Their juxtaposition helps inform the dream-like aesthetic of the show. Each character has an hour-long linear arc featuring 12 scenes with a distinct beginning, middle and end. Those character arcs entwine in space, creating a mixture of scenes that feature anything from one to all characters and an estimated 14 hours of content. The entire show lasts three hours with three loops of content so the audience can experience scenes from different angles. A cross-section view of the set would show characters going about their own business simultaneously and audience members roaming amongst it. An audience member might follow one character for an hour to get a clear sense of an individual arc, or might dip in and out of lots of character arcs, perhaps exploring the space systematically, or letting their nose lead them. Each approach produces different experiences of the same carefully structured content.

*The Drowned Man* is structured in the same way—12-scene, linear and hour-long arcs that loop over a three hour period—but it is a bigger show and uses dialogue as well as dance. There are 28 characters and two central storylines that mirror each other: one set inside the film studio and another outside. Players are given a synopsis as they queue that draws attention to two couples, Wendy and Marshall (inside the studio) and William and Mary (outside the studio):

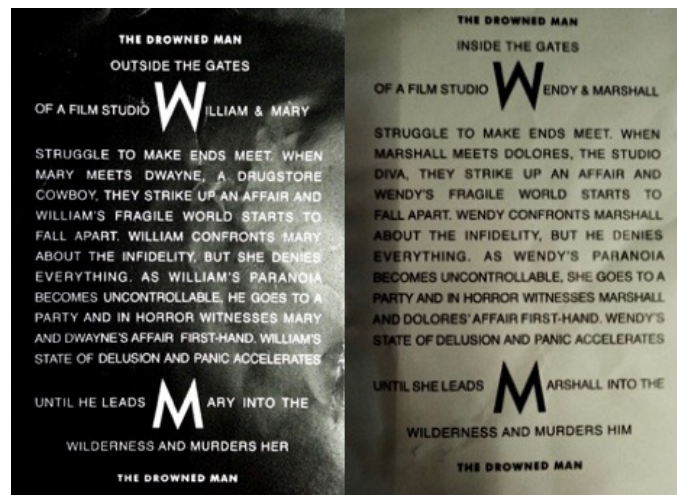


Figure 14: Copy of synopsis given out in the queue to *The Drowned Man*.

The show has an estimated 12 hours of content and is told over four floors and more than 170 rooms that include a town square, film set, audition room, beach, Masonic temple, saloon bar and trailer park. As with *Sleep No More*, the juxtaposition within the central conceit of Temple Studios is dreamlike, which fits the overarching theme of the characters living in studio boss Stanford's twisted dream. The audience's perception of the content loop repeating is an important way to signal the mechanics of Punchdrunk's work (multiple angles on events) and without it players would get lost in a morass of story. For example, in *The Drowned Man*, a player might initially experience the orgy scene, where down-and-out scriptwriter Marshall cheats on aspiring actress Wendy with Dolores (a Hollywood starlet past her prime) from Wendy's perspective and be interpellated into her upset, anger and betrayal. On a second loop, a player has an opportunity to track back and follow Marshall, discovering that just before the party he is drugged by Dolores' assistant and not in control of his faculties. On a third loop, a player might follow Dolores and find that she plants a watch on Marshall's wrist early on to provoke jealousy and suspicion in Wendy. Another player might follow the studio boss, Stanford, and discover the plot to incriminate Marshall was part of his masterplan to make Wendy a star by turning her into a murderer and capturing it on film. Each perspective adds a new layer, complicating a player's understanding of the storyworld, drawing out the impact of events and relationships, and revealing the malleability of truth.

Analysis of the structure of Punchdrunk's work shows how a combination of *authored fabula* and *dynamic syuzhet* works in playable stories. The story material in a Punchdrunk show is so tightly woven that there is one control room where all the lighting and sound cues are logged on a computer so the stage manager can press 'Go' and leave the performers to it. The linear character arcs and settings (which are treated as

characters) do not change and form the *authored fabula*. This layer is informed by traditional storytelling logic that hooks in and rewards players for their attention. Layered over this is an exploratory mechanic that allows players' agency over their experience of the story; to pick and choose where they go and what they see. This allows for multiple configurations and perception changes. Players come away with a personal story of their own experience of the content, an *experiential narrative*, because they have been given the power to play with it via a *dynamic syuzhet*. Each fragment of a Punchdrunk world, from scene to space to soundscape, is carefully designed to have a dramatic logic that enables it to function as a satisfying standalone experience. This allows the fragments to shift and combine like a kaleidoscope and still make sense. Choreographer and co-director Maxine Doyle says:

[I]t should feel spontaneous, as if it is happening from moment to moment. Life is full of stories, yet we don't experience them in a linear way [...] For this more 'life-like' experience to work as theatre, the narrative needs to be readily discernible and tightly structured, even though the feeling is one of fragmentation. (Barrett and Doyle, 2013a, p. 21–24)

Punchdrunk's separation of the shape of the material (the fabula) and the shape of the experience (the syuzhet) is a useful way to approach the combination of narrative and agency in playable stories. Player agency exists in choosing how you experience the story, rather than impacting how it is delivered. Barrett argues that if narrative is spoon-fed (via a map and timings, for example) players will react against it, but if they are asked to find it they will feel they own it (quoted in Jakob-Hoff, 2014; McMullan, 2014; and Gwynne, 2016).

The agency players get from this format is not just about choosing how narrative fragments are assembled, it is also about breaking free of a singular point of view and interpreting material on a global scale. Loops enable a player to switch back-and-forth between cause-and-effect which reveals the complex energy forces that inform people's choices and behaviours and helps to create narrative drive. The mystery of how everything fits together compels players; suspense is created by shadowing a character and becoming concerned for what they might do (when Wendy picks up the scissors that become a murder weapon, for example); dramatic irony increases engagement when players know more than the individual characters in a scene, or enter a scene wondering how it is going to reach the conclusion they already know. These operational mechanisms of narrative drive can be achieved without limiting agency because players are

not steering the story but the experience. There are several methods Punchdrunk use to support those feelings of agency. Through the sets, soundscapes and characters, *Sleep No More* evoked the cinematic worlds of Alfred Hitchcock, and *The Drowned Man* the cinematic worlds of David Lynch. They also used other classic source texts and well known genre tropes as *evoked narrative* which helped players to navigate and orientate themselves in the experiences without being didactic. *Evoked narrative* creates a ritualistic *liminoid* space where players know what to expect, can feel confident exploring and delight in the intertextual references and twists. A clear frame is also provided by location, time limit and the convention of the mask. Players are handed a Venetian-inspired mask that is genderless and emotionless and distinguishes them from performers. It provides anonymity and allows players to shed some inhibitions and express more individual agency. This is coupled with the encouragement by cast members to split from family and friends and pursue an individual path. “We’re trying to empower the audience, we’re trying to give them control. The whole thing’s to make them active so it’s theirs,” Barrett says (Barrett and Doyle, 2013d). For him, this approach is informed by the promise of agency that digital technology has made a cultural expectation: “I think if you’re too prescriptive and you say ‘this is what you have to watch, sit in your seats, watch this, you must digest your art for the evening’ you’re always going to be... It’s not the way we use our computers now, is it?” (quoted in Jakob-Hoff, 2014).

An experience of agency is ratified by the opportunity for an exclusive player journey via the *dynamic syuzhet*. This is aided by the sheer scale of content in a Punchdrunk show, although Barrett has also admitted this can be a drawback in relation to narrative pleasure.<sup>15</sup> The inability to experience all the content can impact on dramatic satisfaction, which is a lesson I took into my creative practice; the functioning of a *dynamic syuzhet* should not preclude the ability to experience all the content. The shows also respond to the use of agency with narrative rewards, including the sought-after ‘one-on-ones’ with performers. These create reverse-dolly moments that put players in the frame and make the larger themes of the work relevant to them. For instance, in *The Drowned Man*, there is a one-on-one with studio boss Stanford where he maniacally assesses if the player has the exploitable qualities required to become a star. Punchdrunk’s formula for balancing story and player agency is to rigorously construct an ensemble storyworld through the *enacted narrative* of performances that can be witnessed, and the *embedded narrative* of set and props, and then let players loose (within the anchoring framework

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<sup>15</sup> Punchdrunk has been criticised for a mechanic that encourages completionist players to pay for repeat visits in order to experience all the content (Exeunt Staff, 2016).

of an *evoked narrative*) to explore however they like. This combination of *authored fabula* and *dynamic syuzhet* allows Punchdrunk to create story that compels and rewards agency with *experiential narrative*. Barrett says: “We enable the audience to choose their route and have ownership of the way they view the show. When you read a book, it’s linear. With video games and maybe our world, there are multiple routes. It’s the order you choose that matters” (quoted in McConnachie, 2015).

I have written previously about how The Fullbright Company is the Punchdrunk of the video game world (Wood, 2015) and *Gone Home* writer and designer Steve Gaynor has acknowledged the influence of Punchdrunk on the game (Gaynor, 2014; quoted in Jakob-Hoff, 2014). It also has an *Internal-Exploratory* mode and an *authored fabula/dynamic syuzhet* structure to negotiate story and player agency. Punchdrunk can draw on the theatre convention of the audience, making it easy to suspend disbelief of your place in the scene as a masked voyeur, but games have to tackle the convention of casting players as active agents in the scene. Fullbright overcame the problems associated with the *mimetic* mode by telling the story retrospectively. *Gone Home* is a *diegetic* player experience where players are active observers unable to influence events that have already occurred. This is an effective way to separate the shape of the material and the shape of the experience in digital. Theatre benefits from social constraints that usually prevent players interrupting live performances unless invited, and if they do performers can improvise around it. Gamers generally do not face the same social constraints and can often be anarchic, testing the limits of the game to see if it will respond to them. Narrative immersion (*flow*) is broken if it does not. As was highlighted earlier in this thesis, AI is not yet sophisticated enough to deal with unpredictable player behaviour so Fullbright’s decision to avoid *enacted narrative* cut the risk. This also overcame the issue of the uncanny valley where digital representations of humans generate a revulsion that breaks immersion. In *Gone Home* players follow the threads of stories in audio diaries, notes, objects and artefacts (like they might follow a performer in a Punchdrunk show) and then imagine how those stories manifested in the house they are exploring. The game sets itself up atmospherically as a survival horror game and plays on that *evoked narrative* to compel, entertain and focus players, but it is actually a story of a teenage girl struggling at a new school, coming out as a lesbian and falling in love. The red liquid in the bath tub is not blood as one first thinks but hair dye, for instance.

The *embedded* and *environmental narrative* in the game is how players (as Katie) learn about characters and piece together why the new family home is empty and what happened in the year she was abroad. The content is loosely structured in Acts associat-

ed with areas of the house inherited from Uncle Oscar (see Figure 15, p.79). Act One is set in the downstairs and upstairs rooms of the house. It teases the spook factor of dead Uncle Oscar to keep players in suspense but also sets up the characters of Sam (Katie's younger sister) and Lonnie, her new friend who has helped her deal with loneliness after transferring to a new school. A key found in a locker in Sam's room opens up a secret passage to the basement and Act Two. Here is where the conflicts between characters deepen and secrets are revealed. Katie learns that Sam and Lonnie's relationship is sexual and Mum and Dad (Jan and Terry) disapprove; Terry's failed writing career is expanded upon and it is implied that Oscar abused him as a child and left the house to him as an apology. Act Three starts when Katie discovers a secret passage leading to the East Wing. This is the most homely part of the house and where Katie finds out more detail about her Mum's career success and potential affair with a work colleague; that her parents are away at a marriage counselling retreat for the weekend; and of Sam's despair that Lonnie has left to join the army. Act Three culminates in uncovering a secret passage to the attic. The game builds suspense in drawing on presumptions and genre tropes that encourage players to think they will find Sam has committed suicide but subverts the expectation of the *evoked narrative* by revealing the warmth of Sam and Lonnie's relationship and that they have run away together.

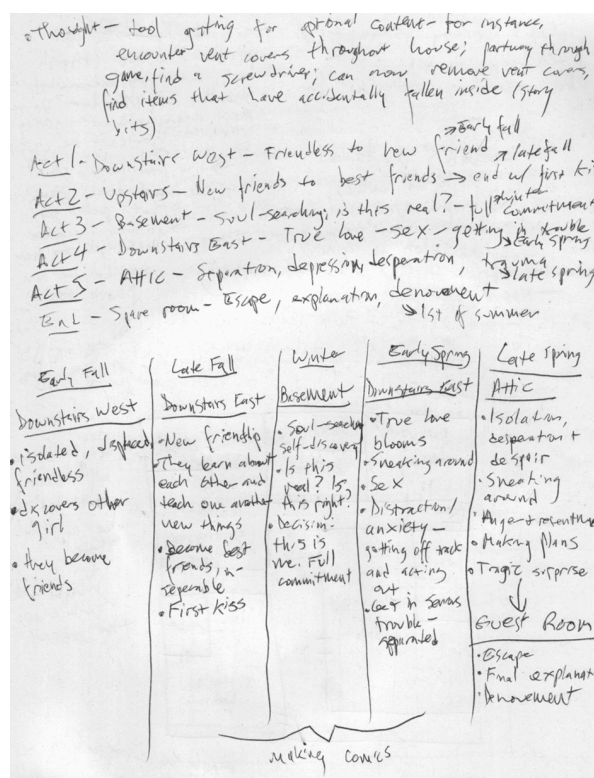


Figure 15: A page from *Gone Home* writer Steve Gaynor's notebook showing an initial plan for a Five Act structure (Gaynor, 2015).

Sam and Lonnie's story is told in Sam's audio diary entries addressed to Katie and other objects and artefacts like love notes, zines, gig fliers, photos and school letters that are easy to find. Jan and Terry's stories are told in objects and text that are relatively easy to find but not augmented by their voices. Oscar's story is told almost entirely in objects and obfuscated text that is difficult to find, reflecting how deep that truth of childhood abuse is buried. Though there is some gating of areas via locked doors, and lighting to guide players to key information, the space offers non-linear exploration. For example, it is possible to get into the attic and reach the climax of the story from the opening foyer. How players decide to engage with content via the mechanics available defines their narrative experience. The lack of traditional game puzzles is replaced with the challenge of working out what happened and understanding and interpreting the characters. The story is a puzzle in its own right but one with an open-ended solution. As critic Tyler Wilde commented:

More than interacting with spaces and things, I'm interacting with motivations and fears, solving a maze with empathy rather than spatial reasoning. In a medium rife with expository cutscenes and deus ex machina, *Gone Home* brings vital innovation to the art of the interactive narrative (quoted in PC Gamer, 2013).

The *dynamic syuzhet* combined with *evoked narrative* in *Gone Home* offers players agency over their *experiential narratives*. They operate like detectives trying to decipher the story through exploration. The central mechanics of 'searching' and 'exploring' enable players to make decisions and add resonance because of their parity with the search for meaning and exploration of identity that is central to the stories of Sam, Jan and Terry. Since the *dynamic syuzhet* prevents the construction of narrative drive through the authored release of content on a timeline, dramatic tension needs to be present in the 'event of play' to compel players. *Gone Home* effectively uses *evoked narrative* and player verbs to support meaning and achieve that tension.

As *Gone Home* is a primarily *diegetic* experience where the player is not the story-protagonist it opens up the possibility of generating empathy and a 'deep gaming' experience. Players get to know Sam through the things in her home that show us what she wants, believes and is trying to do with her life. These artefacts build *recognition* and *alignment* that connects players with her as a character so they care about what has happened to her. The player-character, Katie, is not at the centre of the narrative but there is some characterisation of her via the answerphone message she left to say she was com-



ing home, postcards she has sent, trophies from her previous achievements and the fondness with which Sam addresses her in the audio diaries. By embodying the perspective of Katie, players enter a *liminoid* space where they leave behind their own identities but are also not completely the character in the fiction. This space is one where empathy can be created, especially when players are not cognitively stressed with goal-related mechanical game tasks. Katie is a tired college student who wants to go to bed but does not know where her family is. This is a very different player perspective from earlier environmental storytelling games like *System Shock* (1994) where you play a cool hacker with guns who is trying to escape a spaceship, and *Bioshock* (2007) where you are a genetically-engineered killing machine trying to escape an underwater world. *Gone Home* was one of the first games to show a way forward for players outside of mastery, winning, triumph and defeat. Where the process was not about escaping but understanding. Where it was not about incredible visual worlds but real human worlds. *Gone Home* helps players' embody Katie by matching the game mechanics with the fictional limits of the role. For example, players cannot pick up the couch and throw it across the room because of the respect Katie would have for her family home. This consistency between the fiction and the mechanics reminds players that they are *embodying* rather than *controlling* a character, experiencing her perspective not telling her story mimetically. Giving players power over choices that express personality would dilute the potential to experience perspectives outside their own experience and compromise the narrative impact. The verbs available to players in *Gone Home* enable them to have agency over their experience but still be *spatially, temporally, epistemically* and *emotionally immersed* in other people's stories. Game critic, Chris Thursten, summed it up in judging *Gone Home* Best Narrative Game of the Year when he said:

*Gone Home* subverts our expectations of what a game experience should be in order to tell a different kind of story—but what I like most about it is that it's not about throwing away what games are good at. Games are a form of communication that demands mutual participation. Good games expect your critical engagement, and treat you like someone capable of interpreting situations and environments intelligently without the need for hand-holding. There's something positive and hopeful about entertainment that wants you to be active, not passive (quoted in PC Gamer, 2013).

Punchdrunk shows disappear players through the use of masks that turn them into ghosts, and player roles are not coupled with the narrative meaning as a result. The only moments *self-directed* emotions couple with *empathetic* emotions are in the one-on-ones when performers remove players' masks. In contrast, *Gone Home*'s creation of a

character space for players to inhabit provides the rules of the ritual they are participating in; that *liminoid* space creates conditions for the coupling *self-directed* and *empathetic* emotions. The fear players, as Katie, experience from the haunted house setting couples with Sam's fear of expressing her true self. Players' attempts to decipher the story through exploration echoes Sam's attempts to decipher her sexuality. The use of mechanics to create a *self-directed* emotional state in players that couples with the *empathetic immersion* generated by characters' stories, and so reinforces the themes, was a lesson I took into *Underland*.

*Everybody's Gone To The Rapture* approaches the balance of story and player agency in a similar way to *Gone Home* but uses the *External-Exploratory* mode. Players are dropped into a bucolic English valley in 1984 but are not characterised in any way, acting like a floating camera directing their own experience. Creative Director Dan Pinchbeck said *The Chinese Room* thought player-character exposition would limit agency.<sup>16</sup> They wanted to leave it as an open question, confident that narrative ambiguity would create a more interesting *experiential narrative* for players (Pinchbeck, 2015b). The studio's approach is informed by an understanding of rituals and defining a "player-shaped hole" at the centre of the game. Pinchbeck said:

A ritual is designed to function to let you simplify your expectations and responses to a set of stimuli and if you do that then it makes sense [...] In a game you say: in this instance, everything conforms to create this shape. You as a player can understand and see it clearly and fit yourself into it and now everything unlocks and makes sense (Pinchbeck, 2015b).

In this conceptualisation, Pinchbeck argues for an 'architecture of experience' rather than the imposition of an experience on players. The open world of *Everybody's Gone To The Rapture* uses narrative structure and environmental storytelling—like lighting, audio, the physics and representation of space—to guide players, but does not control them. The *dynamic syuzhet* enables players to build the story however they like. Publisher Sony Santa Monica wanted the game to be more linear but *The Chinese Room* feared that would smother player agency (Pinchbeck, 2015b). Instead they wanted to offer the "comfort blanket" of a fairly evident route that provides a good experience without compromising the openness for players who want more exploration and discovery (Pinchbeck, 2015b). They also did not want to overwhelm players like some open world games do when they offer 100+ hours of content and suggest players can do any-

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<sup>16</sup> The Chinese Room is the Brighton-based independent studio that made the game.

thing and go anywhere.<sup>17</sup> Pinchbeck argues that the scale of open world games can stress players making it harder to generate empathetic engagement. *Everybody's Gone To The Rapture's* approach to agency lies between freedom and control, offering a dialogue between player and game. It provides simple parameters of agency that empower players in their specificity and define the architecture of experience. Pinchbeck's idea of good interactive storytelling is not about offering a series of binary choices or forcing players into a way of being, but knowing what players will do and preparing "presents" for when they do it (Pinchbeck, 2015b). The use of the *External-Exploratory* mode enables this and, Pinchbeck argues, harks back to Stone Age forms of environmental storytelling: "The idea of forcing somebody to experience something in a particular prescriptive way is a relatively modern phenomena" (2015b). Focusing player action on story building, rather than acting within the story, maximises player agency, dissolves conflict between narrative and player agency and creates the conditions for an immersive experience of *flow*.

The player verbs in *Everybody's Gone To The Rapture* provide the parameters of the ritual and are very simple: 'walk,' 'watch,' 'listen,' 'read,' 'explore.' The mechanical skill required is reduced to using one stick to move, one to look around, and then tilt the controller, or hit a button, to unlock some scenes.

Something we tend to find in games, because it's an interactive medium, is there's a pressure to do and to move all the time, and if you're not doing and moving then there's a problem [...] You can't have a deep emotional response if you're constantly stimulated, or if there's a constant call to action where you're having to mechanically do stuff (Pinchbeck, 2015a).

Rather than offering players a goal-directed 'I' experience where they have to find a solution, *The Chinese Room* wanted players to be driven by caring about characters. Making it a *diegetic* player experience and reducing the mechanical demand opened up space for story and then put pressure on the drama to be good enough to sustain attention. The studio's aspiration was for the story to be equivalent to the best of TV, film, theatre and radio drama (Pinchbeck, 2015a). The game's initial hook comes from being transported to an English village where everyone has disappeared. The spectacle of a beautifully rendered environment and the mystery of what has happened drives initial player engagement but dramatic irony is added when players realise they have access to the moments before people died. Player engagement is then driven by knowing the fate

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<sup>17</sup> *Fallout 4* (2015) has an average play time of 150 hours.

of these characters and wondering how they get there and how they react in crisis. Pinchbeck started with a Three Act structure but rejected it. He said he surrendered to the non-linear format and felt that if they tried to make it make sense it would become contrived (Pinchbeck, 2015b). There is a linear structure to the sci-fi mystery of what happened in the valley to bring The Rapture, but that fades into the background against the human drama. Pinchbeck's earliest concept writing was character-driven and he approached narrative construction like a soap opera or TV mini series. He and co-founder of The Chinese Room, Jessica Curry, worked together like author and editor on the fiction, also taking on board story ideas from the rest of the studio and input from actors in rehearsals. They focused on the relationships between characters and then associated characters with locations, as you find in soaps where certain people continually pop up at a particular workplace or home (Pinchbeck, 2015b).

The story approaches the familiar video game theme of the apocalypse from the point-of-view of those who would be the piles of ash, not the gun-totting heroes (Pinchbeck, 2015b). In order to generate empathy with characters they represented the domestic, intimate and mundane details: teenage couple Rhys and Rachel making plans to run away to Spain; Lizzie debating with a friend over going for a drink with married old flame, Stephen; shoes hanging over a telephone line because Stephen is bullying Howard; Frank being too afraid to be by his wife Mary's side when Father Jeremy helps her die with morphine so he goes to the pub. Pinchbeck said:

A lot of the effort went into understanding who these people were and their relationship to one another and then if you caught a moment in the spotlight in a scene, if the characters were written well enough, and the performances were good enough, then you as a player extrapolate all the other meaning from that (Pinchbeck, 2015b).

They also balanced the more emotionally charged apocalyptic crisis scenes, like when we find a mother who is scared to go upstairs because her kids might have died, against smaller details like an abandoned bicycle, and characters stockpiling cans of beans in the village hall. The six main characters were associated with six main areas (the village, the farm, the observatory, for example) that work like episodes or chapters with the climax of each being when that particular character dies. The characters also popped up in other locations but their area is infused with their personality, from their psalm to the way the motes (the balls of light that represent them) move in the space. The Rapture is triggered when Stephen and wife Kate discover a pattern in the stars during a celestial event and amplify it using telescopes. That releases an intelligent form of light

energy called “The Pattern” which consumes every living being it comes into contact with, starting with headaches and nose bleeds and ending in death and disappearance. As players move around space the balls of energy transmogrify into outlines of characters in scenes that players witness. They have just enough resemblance to humans for players to project their own imagination onto them and also avoid the dissonance of the uncanny valley.



Figure 16: Character representations in *Everybody's Gone To The Rapture* (Watt, 2015)

Unlike cutscenes, they do not break players out of the action to deliver story detail. Pinchbeck said: “We wanted to have a seamless unbroken experience with no cutscenes so you don’t have a situation where you play for a bit and then some story’s fed to you [...] It’s up to you whether or not you stay for that scene” (Pinchbeck, 2015a). The scenes are not replayable, which encourages players to stay but is also a deployment of agency to serve the fiction. Their fragility resonates with the broader theme about the value of life being in human moments that cannot be repeated. Using the parameters of agency to reflect story, rather than for the sake of it, deepens narrative impact.

Nothing in *Everybody's Gone To The Rapture* is gated except the final location—the Observatory associated with scientist Kate. The spotlight scenes number about 30 in each area, with a third triggering as you walk by, a third triggered by controller tilt, and a third caught in radios. This modulation is inherently spatially structured because players start one side of a map and have to move to the other side. The studio also consid-

ered the emotional “half-life” of events when balancing where to put them, meaning the emotional tone you carry into scenes according to the scene you have just come from. “It was very much about working that gap of saying the player will be feeling X, Y or Z when they leave this scene, how do we work with that or change that in the next bit” (Pinchbeck, 2015b). This also had the effect of creating a reverse foreshadowing where a new scene players witness changes the meaning of what has come before. The creation of scenes that express moments of change and larger ideas in small human details is akin to how filmmakers structure content. However, the rigorous application of authored logic to string those scenes together, and the pleasure derived from that as a film audience, is replaced with the agency you are afforded in playable stories to string those scenes together yourself. The operation of the *dynamic syuzhet* relies on that process of stringing together being as interesting as if it were strung together by an author. *Everybody’s Gone To The Rapture* allows for a fluidity of meaning and dynamic perception change of character according to how individual players encounter scenes. The relationship of why-to-what is constantly shifting with new context altering the meaning of what has come before. This opens up a huge interpretive space where player agency and imagination is put to work to understand cause-and-effect on a complex networked scale, rather than as linear progression. Comparing the approach of *Everybody’s Gone To The Rapture* to *Her Story*, Pinchbeck said: “*Her Story* works on that basis entirely [...] what you bring to it is that you join things together, but it understands that the joining together which you do is more important than the things which you’re joining together” (Pinchbeck, 2015b).

*Her Story* begins in the *External-Exploratory* mode and then flips to *Internal-Exploratory* mode for extra narrative affect. Players are given access to a police database they can search to find out about a murder via video clips of police interviews with two women. It relies on one simple mechanic which approximates Googling and gives the game a low barrier to entry. The search mechanic that defines gameplay also opens up a raft of other player verbs that generate a strong sense of agency, including ‘watch,’ ‘listen,’ ‘decipher,’ ‘interpret,’ ‘note,’ ‘compare,’ ‘debate,’ and ‘investigate.’ Creator Sam Barlow has been sent hundreds of images of notes players have scribbled down as they have attempted to uncover the mystery (see Figure 17, p.87). The game also offers the opportunity to be played socially since the pleasure of agency is not about mechanical skill but working out which search terms to use. It is another example of the shape of the material not defining the experience of play.

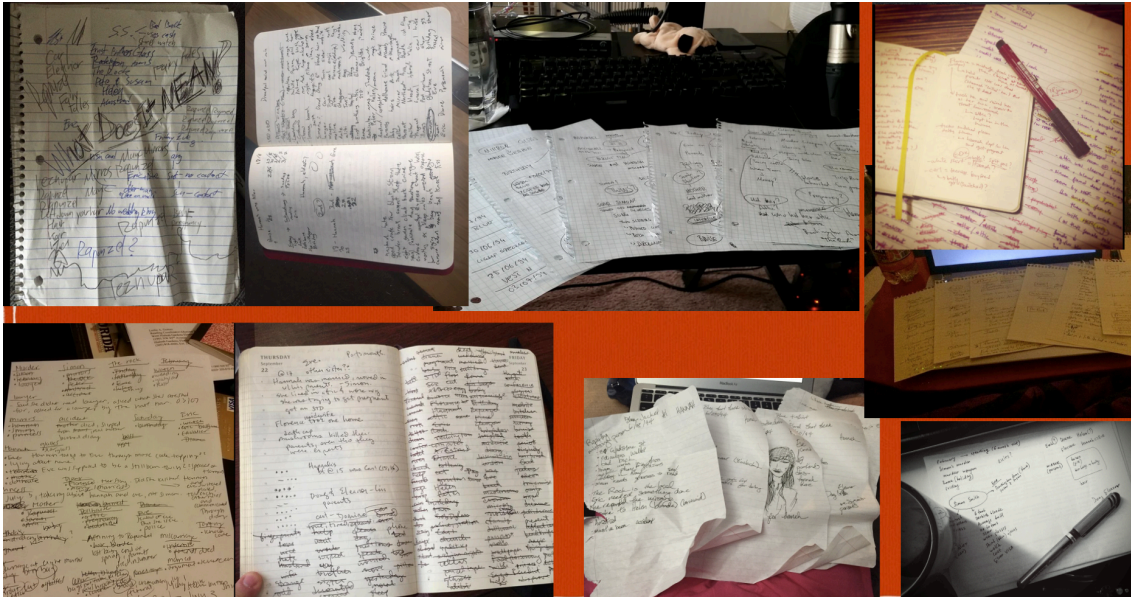


Figure 17: Pictures Barlow has received of notes players have made as they play.

*Her Story* departs from the familiar model of the immersive sim and illusion of player presence in 3D space, but the blurring of the fictional computer screen with a player’s computer screen, the audio of 90s computer keys being tapped and the buzz of fluorescent strip lighting, helps spatially immerse players so they believe they are in a police station basement searching the archives. It also provides a clear frame for agency. Barlow argues: “Most storytelling has some kind of frame, some kind of distancing effect and requires the use of your imagination [...] We [video game makers] shouldn’t be so in love with having everything on screen, and having everything enacted through the actual medium itself” (Barlow, 2015a). Not having to project the illusion of continuous time and space allowed Barlow to provide dramatic tension via omission. Game designer Sid Meier famously asserted that games are “a series of interesting decisions” for players (Alexander, 2012). Story exploration games counter that view in relation to narrative and suggest playable stories might be better thought of as a series of interesting gaps. Players in the *mimetic* mode tend to live through cause-and-effect in real time, which negates the narrative drive that can be generated in the gaps as players are encouraged to work out chains of cause-and-effect. The *diegetic* mode keeps that option open. Barlow approached the writing of *Her Story* (like Pinchbeck did *Rapture* (2015b), and Pratchett did in developing the backstory to *Tomb Raider* (2015)) through Hemingway’s Iceberg Theory (Barlow, 2016). Hemingway said:

If a writer of prose knows enough of what he is writing about he may omit things that he knows and the reader, if the writer is writing truly enough, will have a feeling of those things as strongly as though the writer had stated them. The dignity of movement of an ice-berg is due to only one-eighth of it being above water (in Bruce, 2013).

Like Scott McCloud's conception of a reader of comics as an "accomplice" and "partner in crime" using their imagination to fill in the gaps between panels to create meaning and closure (McCloud, 2004), Barlow edited the video clips so players have to infer police questions and imagine what is off screen. The final clips vary from a few seconds to a few minutes long. Unlike *Everybody's Gone To The Rapture* and *Gone Home*, Barlow could not rely on spatial structuring to help shape the order in which story content would be accessed (*Everybody's Gone To The Rapture* also used an AI mote that danced around the environment subtly guiding players) and he wanted to avoid "falling too in love" with any linear logic once he had made a decision on the fragmented non-linear structure anyway (Barlow, 2015b). In contrast to Pinchbeck, who attempted to make each scene stand-alone dramatically, Barlow said he wanted *Her Story* to emulate the "terse" way people speak in police interviews. He said:

[Y]ou [players] come into it with such a knowledge of the murder mystery genre and the police procedural, so that's an element to how you perceive everything, so although she's just saying something boring here you're trying to slot it together with these other jigsaw pieces that will give you the bigger picture (Barlow, 2015b).

Though Barlow prioritised realism over the vigour of making each asset stand-alone dramatically, he added:

[W]hatever I'm doing I'll usually fall back on making sure that whatever the small unit that I'm making is, it's interesting and has a twist, not necessarily a twist but flips something. Then the story's going to be compelling and interesting [...] so there's a little mini-unit of dramatic charge in every moment [...] If I'm looking at novels and other things broken into Five Acts it comes down to sequence theory, make sure the small thing is interesting and then it's going to work. If the audience goes into this scene with a question and you give them that answer but raise another question, as long as you're able to escalate, that's going to keep people going (Barlow, 2015b).

This echoes McKee's approach to storytelling in film where every scene must have a turning point, with each beat being a change in behaviour and each scene a change in value (2014). McKee argues that empathy is generated when an audience understands the values at stake in a scene (e.g. hope-despair, love-hate, truth-lie) and then experi-



ences the transition of values from positive to negative, or vice versa. For McKee, emotion is a side effect of value change and is what keeps an audience caring. Those smaller value changes in scenes then add up to a larger value change that expresses the theme of the story. This understanding, coupled with Barlow and Pinchbeck's insights into giving each small unit a dramatic charge, was taken into the development of *Underland*.

In order to structure *Her Story* as a series of short scenes Barlow did a lot of R&D work and outlining, fleshing out the backstories, motivations and relationships of all the characters (Barlow 2015b). He then plotted the story and sequence of seven police interviews linearly so "there were enough layers and motivations within the characters and that the story would have sufficient richness to withstand the scrutiny of people attacking it from all angles" (Barlow, 2015c). He was keen to write from a character-driven perspective and avoid the more "artificial" process of writing for player choice that puts characters on railroads (Barlow, 2015b). He could do this in *Her Story* because the player is not the protagonist. He was also able to exploit the encyclopaedic affordance of digital and hide content in the database to be revealed as a result of player agency. Barlow was confident in his approach because he had run a prototype with the police interview transcript for the case of Christopher Porco, a college student who murdered his father and attempted to murder his mother (Barlow, 2015c). He chopped the Porco transcript up into short extracts and then entered them into an Excel spreadsheet where he could run search terms and play it how *Her Story* might be played. He discovered that the search word mechanic was compelling enough without needing to gate the content. Despite the fact Porco did not confess, the open questions police posed about his weekend, or the previous summer, turned up lots of references to money. Barlow then read up about the case and discovered he had killed for inheritance money. He said:

It was really awesome to me that there hadn't been a game designer scripting this, it was a genuine, authentic testimony, but because of the way in which everyone actually wants to tell their story and confess, the way in which language works, and the mechanic of interrogating his own words, had naturally exposed this theme and subtext to his testimony. That felt really exciting imaginatively, so at that point I thought, if this is something that just happened from this unscripted thing, maybe I can take that approach? (Barlow, 2015c)

Once the *Her Story* script was finished, Barlow entered it into a spreadsheet with formulas that analysed what was said, ranking most and least used words to work out which clips were too easy or too hard to find.

It would give me the top ten offenders and then I could go in and combine two synonyms to be the same word or add a synonym if a word is used too much; I could tweak and sculpt, shave little bits off here and there, to the point where it seemed nicely balanced (Barlow, 2015c).

Barlow's pruning and polishing process with the text prototype was about getting the player difficulty level right but also developing the thematics. He liked the idea of clips creating a "Cubist portrait" around words like marriage, and building in contradictions that delved into ideas outside the murder mystery plot (Barlow, 2015b). This painterly approach is reminiscent of filmmaker Iñárritu's approach to non-linear storytelling in his "puzzle trilogy" where a bigger picture emerges from the detailed parts (Mihoc, 2011). Where dramatic escalation in linear storytelling is achieved by managing the order of scenes, in a non-linear *dynamic syuzhet* the dramatic escalation is achieved by building the picture outwards in any number of ways.

*Her Story* has a climax when players uncover the majority of clips and receive a chat message from a friend that reveals they are playing as the daughter of a murderer and murder victim (this is when there is a switch from *External-Exploratory* to *Internal-Exploratory*). Despite this, there is no bankable resolution. Non-linearity, omissions, the reliability of character testimony and the operation of the game mechanic combine to complicate the resolution of the mystery leaving no comfortable objective truth. The form is a means to express the ambiguity of how life is experienced and has fuelled long debates over *Her Story*'s meaning amongst gamers online. Barlow said that he was excited about making *Her Story* because "it felt like something that no publisher would want to fund" (2015b). The outcome was a commercial and critical success that swept the board of narrative and innovation awards in 2015–2016. Barlow tapped into the mainstream appeal of the police procedural in other narrative forms and took an alternative approach, removing the trope of the gladiatorial detective genius to focus completely on the story as told by two women, and providing a mechanism for players to actively scrutinise the why of the crime.

This chapter makes the case for the use of the *External-Exploratory* and *Internal-Exploratory* modes as effective ways to negotiate narrative and player agency in digital playable stories, primarily because they separate the shape of the story from the shape of the experience. It has not tackled the *External-Ontological* mode because it is the home of emergent narrative experiences. Juul defines emergence as "the primordial game structure, where a game is specified as a small number of rules that combine and yield large numbers of game variations for which players must design strategies to han-

dle” (2005: 5). It is a technically and mathematically-driven approach to constructing playable stories and so less relevant to creative writing as a craft and this thesis as a result. Its aim in narrative terms is summed up by the “narrative lego” approach where a set of narrative building blocks interact to produce a wide range of unpredictable outcomes beyond the ability of a human team to craft (Levine, 2014). Handing the process of narrative construction over to a system driven by mathematics has not proved to deliver interesting stories so far (Ryan et al., 2015). It has created some successful game experiences but they are outside the scope of this thesis.

*Everybody’s Gone To The Rapture* can provide a lens through which to view this ‘Two Cultures’ (science vs humanities) tension at the heart of approaches to playable stories. In the game, scientists Kate and Stephen are attempting to understand the cosmos by decoding numerical patterns in the sky when they release “The Pattern” on a quaint English village, and then the world. This mathematical intelligence uses humans as its primary energy source, bringing death in its wake—the apocalyptic event is a metaphor for how death will claim everyone. Kate has been trying to find the meaning of life by studying The Pattern and discovers in the course of the game that it is a force that connects her with all living things. As The Pattern travels through the valley it encounters the light of real people and lives, the stories it witnesses becoming a way for the cosmos to know itself. Players seem to have been playing as The Pattern, travelling through and trying to understand people’s lives and the nature of life itself. Emotional impact is not created by the scientific facts of the event but by the human stories and relationships. The game concludes that the universal can be found, not just in the cosmos, but in people. *Everybody’s Gone To The Rapture* is about two different means of interrogating who we are: via science and via stories, and shows that it is through stories, rather than formulas, that we give our lives meaning.

In the concluding part of this chapter it is useful to contrast ways to combine story and player agency in *digital* playable stories with *live* playable stories. In live work—street gaming or interactive theatre, for example—the *mimetic* player experience is prevalent because players are present. Punchdrunk escape the *Internal-Ontological* mode via masks but it is rarely found elsewhere. Live methods are useful to study since they can throw into relief the limits of digital and offer different ways of thinking about writing to negotiate narrative and player agency. The popular street game *2.8 Hours Later* (2010–2015 versions by Slingshot) tackled the question of combining narrative and player agency in a similar way to *The Chinese Room* by setting up an ‘architecture of experience.’ Slingshot wanted to make an experience that reflected on the political

climate in the wake of a newly elected coalition government in the UK. The company viewed the zombie genre as a fitting context to express a post-apocalyptic vision of the collapse of public provisions and cuts destroying the public realm (Evans, 2015). They found that the premise and genre tropes of zombie fiction allowed players entry into a *liminoid* world that set up the parameters of agency. Co-creator Simon Evans argues:

You have to write in some of the genre tropes so people know where they are in this world and what they're supposed to be doing. So they know they're a survivor and not supposed to be ill [...] they know what expectations they should have in order to read it and understand their agency (2015).

The *evoked narrative* of a zombie apocalypse was an initial means of creating a 'player-shaped hole' that was then reinforced by the game mechanic. Evans said that in designing the four versions of the game—*Origin*, *Asylum*, *Survival* and *Ruin*—they were conscious of the need for synergy between the story and the mechanic; that players should be doing something that serves the narrative meaning and vice versa. Evans has also prototyped a game adaptation of *Dr Jekyll and Mr Hyde* (Stevenson, 1886/1993) and said that when he realised the book was structured as labyrinthine accounts-of-accounts, a "series of boxes within boxes," he realised a synergistic game mechanic would be a maze (Evans, 2015). *2.8 Hours Later* is a chase game where in order to survive players must run from zombies until they reach a safe camp; the escape mechanic matches the narrative set up. It is structured linearly with players pushed from A to B, their route through the experience dictated to them. Players do not have the agency to shape how the narrative unfolds but this adds dramatic tension that reinforces the survival situation and intensifies immersion. Players who find themselves in the middle of a zombie apocalypse readily accept that their agency is limited. The narrative skin serves the logistics of the *Internal-Ontological* mode and is synergistic with an extreme survival situation where options are severely restricted. *2.8 Hours Later* is an example of how writers and designers can use an interactive mode that limits player agency to serve the story. Interactive theatre show *Short Changed* (2016) uses the same trick. The theatre audience is cast as the audience of a government-funded TV game show able to make a binary choice on the fate of characters via a vote. The set up is an offer of agency and power but limiting the expression of agency to two choices is a use of the mechanic to reflect a larger theme that reveals the disempowerment of the audience at the hands of a governmental system. The theatrical installation *Dr Leon: Neural Enhancement* (2015) uses the *Internal-Ontological* mode similarly. It is structured as a therapy session, which

provides players with a context where they already know their agency will be limited but assume it is a means to serve their comfort. Creator Sofi Lee-Henson drew on cult and therapy traditions to “love-bomb” players as they arrived so they were relaxed, and the Milgram experiment to make them obedient to authority (Lee-Henson, 2015a). These parameters to agency enabled players to go along with a surgical procedure that involved the illusion of implanting a chip in their brain to help them “Be Better.” Lee-Henson said the use of these parameters were a means to open up an internal discussion in players about what it would take for them to have a better life (Lee-Henson, 2015a). She used an interactive mode that limits agency in order to empower individuals after the experience.

Early versions of *2.8 Hours Later* were structured so that players started at one point on a map and were directed to the next grid-reference by a micro-performance. Between micro-performances they were chased by zombies. As a high-energy, *goal-directed* experience Slingshot found that player empathy was not really engaged. They did not want to stop and watch performances, they wanted to have something to do in those performance sequences that would help them achieve their overall goal (Evans, 2015). Slingshot developed a writing technique to respond to this that Evans refers to as a “choreography of knowledge,” structuring the player journey by means of what people know when they come into a scene, what they need to do next and the knowledge that emerges from that (Evans, 2015). As a result they could write their scripts so actors were given phrasing rather than dialogue to be used verbatim. They would then spend time workshopping and rehearsing the scenes imagining different player reactions. 2.8 writer, Hazel Grian, described writing for players’ *experiential narratives* as a management of player emotions (Grian, 2015). Where Barlow and Pinchbeck described writing scenes with units of dramatic charge that expressed a value change, Grian described writing to create an emotional shift. She said she was writing:

What the player journey could be and feel like, what should come first, thinking of it like a movie story [...] They would find a shop that had been vandalised with a younger man and child, vulnerable people, so drawing on those emotions of wanting to help people, they’ve been robbed and he’s frail, she’s frightened, she’s young, and then in true horror manner, you see her change and vomit up blood and he says get out of here, I’ll finish her off. So I wrote that cinematically, taking them through the topsy-turvy emotions and moving them on in the scene [...] You were always writing in the player and asking what are they going to do when they get there? [...] It was asking what kind of characters they would meet? What could they be used for? What kind of experience would they build up? (Grian, 2015)

I took a similar approach in the writing of *Resurgam: The Lost Pearl of Plymouth* (2013), structuring the player’s *experiential narrative* according to Joseph Campbell’s ‘hero’s journey’ (1993). The steps players were taken through emulated the progress from call to adventure, through threshold and challenges, into the abyss and then transformation and return.

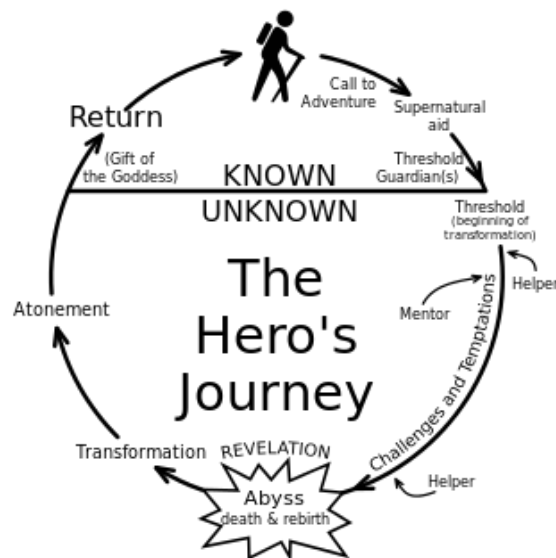


Figure 18: Graphic depiction of the Hero’s Journey (Hero’s Journey, 2016)

*Resurgam* used the *evoked narrative* of the Indiana Jones-style adventure genre, and then a mobile application as a tool to guide players through that story arc. The premise was that an ancient magical pearl (the size of a crystal ball) held the balance between land and sea and had been lost. As a result, the sea was rising up to claim the land and sea monsters were taking human lives. Players were tasked with finding the pearl and saving the city by raising ghosts of the Order of the Pearl who could guide them. The mobile app was players’ “quest kit” and led them to locations where ghosts would be encountered and a puzzle combining the live space and the app code-cracker would unlock the location of the next ghost. Between (and in) locations were sea monsters players had to evade, similar to the use of zombies in 2.8. The app quest kit kept players on the story path and actors improvised around them to maintain the dramatic tension and push them through the experience. Player agency in *Resurgam* was constrained to what we wanted the story to achieve but, by virtue of being live, the player-shaped hole of action-adventure hero afforded agency. Grian described writing for this kind of *experiential narrative* as:

Sending people down a tunnel but making sure that's interesting. Like *Alien* [the film] going through the air ducts; you would have all those channels but it would be dead ends, they'd be red herrings. So you put red herrings in so it gives people the sense they did a left turn but it was bricked up, or there was someone being sick, so they'd go "oh no, not down there." You do the side roads but have a critical path. Set up the stops down the tunnel so they feel like a moral dilemma. Do you help the teenage couple with an arm missing? Do you stop and help? Tearing them away from things they'd like to help with, that horror narrative where inevitably you have to keep moving and you're inevitably moving into something worse, so you're ratcheting it up. Depending on the theme you're forcing them to make those decisions. It's important because it makes it more of a memorable experience because all of your faculties are being used, that's what it's about. If you're not being engaged emotionally, you just get bored (Grian, 2015).

The benefit live experiences have over digital is that actors can improvise to the specifics of players in the moment, enabling a customisation of the experience. Unlike AI-programmed NPCs they can also be trained in when to pull the curtain back to move players on, how to use status levels to manage anarchic players and how to engage in the emotion of the scene. As Grian (2015) says you have to "waterproof" the *experiential narrative* in the writing; "you've got to invite them into your scenario. And you've got to manage their reactions, you've got to know where it's ending as a performer. You have to nip it in the bud and send them away before it turns into something messy." The time limits in live playable stories help achieve some of this. In writing and designing *Press Go* (2017) since the submission of this thesis—a multi-locational murder mystery theatre game responding to Robert Icke's *Hamlet* (2017) which took players through the stages of grief to pair *self-directed* and *empathic* emotion and reinforce themes—I have also discovered ways to use trigger questions, bullet point scripting and acting actions and objectives to help actors improvise, adapt to players and maintain immersion. Lee-Henson described the same thing as "writing a script with pockets" (2015a). Her approach to writing and designing *Dr Leon* was to create what could be described as a 'choreography of emotions,' where she moved people through stages that flipped them between unease and comfort, stimulation and rest. She said:

I knew I had three rooms and the corridor down. I asked what the timeframe was and how I split that up. How much time do I want to spend in each thing and what am I trying to achieve in each room? With that approach you're trying to unsettle people: this place is disgusting, it smells gross, why did I come here, am I gonna be alright? Then you arrived with smells down the corridor, sprayed jasmine and other fragrances in the rooms so you started to feel more at ease. The lighting was soft, bright and comforting. So brought you down again. Wait a couple of minutes before going into therapy room and in there it's designed to feel a bit uneasy but then you're offered tea and given biscuits, you get to watch the film and have the dancer move

around you [...] Into the surgery it's quite nerve-wracking and tense getting medicine made up, the lighting was a bit harsher and you don't really know what you're taking and you're getting completely foreign stuff on your tongue (some of which wasn't the most pleasant) and then strapped into a chair, which is terrifying [...] The surgery is a heightened point, you can't move, part of it is to let go. Then the dark room afterwards is a lower point until you're taken out, given a last meditation and sent on your way (2015a).

Her scripting was open in that she gave performers a document with a checklist of aims, outcomes, key phrasing, tasks and timings that was used to guide performances (2015b). This was then workshopped in rehearsals and previews to create a coherent experience but allow for the different approaches of performers and space for improvisation in reaction to individual players.

The ability to open up a space of improvisation for players is something that enables live playable stories to use the *Internal-Ontological* mode for narrative affect in a way that digital cannot. We found with *Resurgam* (2013) that providing a structured syuzhet to guide players through the experience meant they were clear on what they had to achieve, but the collaboration between them to achieve those goals could produce a range of interactions that had narrative outcomes. For example, would a player who had been caught by a sea monster choose to use themselves to bait other sea monsters and save their teammates? In common across these examples of live and live-digital hybrid playable stories is the use of narrative to set up the player-shaped hole, the *liminoid* space that allows people to leave behind their societal identities and experience something new through story. Lee-Henson said the narrative elements of *Dr Leon*, “all of the texts, official company documents, they were a way to set an unspoken expectation of how to behave” (2015a). She said the only time this was challenged was when people arrived in large groups and were performing to one another, shouting things like “are your brains coming out yet?” Being a player amongst people you know prevented some from leaving behind their established identities. Peter Vanderford, General Manager at Kaleider, said a similar thing happens in their show *The Money* (2013–) where players are put in a room to decide how to spend a pot of money (2016). He said if players know one another then the drama of player interactions can be compromised. In contrast, Lee-Henson said that “treating friends” as *Dr Leon* was “almost impossible [...] because you were digging into their intimate selves and asking them to give a lot more than you would have done ordinarily” (2015a). The space of *experiential narrative* opens up places where players can let some of the parameters of their daily identities fall away to discover new sides of themselves. *Dr Leon* played the border between



bonafide therapy session and fictional experience so players were left uncertain how real it was, which intensified the suspension of disbelief and openness. Lee-Henson said the sense of reality was important to having players trust their feelings as genuine; but, significantly, Lee-Henson described finding a group of American students, who were not told in advance if it was real or not, a lot less open because “the disbelief was awkwardly suspended and in a vulnerable position” (2015a). Only when they were told it was “fake” did some agree to participate. The construction of the fiction was important to the accessing of real experience and emotions; only then could they let go.

*2.8 Hour Later, Resurgam* and *Dr Leon* all used a *fixed syuzhet* structure that led players through an experience that produced an *improvised fabula* that exists in players’ *experiential narratives*. This combination of *fixed syuzhet* and *improvised fabula* is a common negotiation of narrative and player agency in live playable stories. *You Me Bum Bum Train* (2015) uses it to push players (it calls them “passengers”) through a series of scenes they are unlikely to encounter in real life (being elected to political office or being a refugee, for example) and then allowing a player to improvise that role. One passenger said: “It was just so exhilarating, and so freeing, it freed my body mind and spirit in so many ways. It somehow makes you believe you can be anything you want to be, not just in this world of drama and theatre but just in life. It’s all these inhibitions that hold you back” (*You Me Bum Bum Train*, 2016). Coney’s show *Early Days (Of A Better Nation)* (2015) is set in 2033 when your nation, Dacia, is in ruins and you must decide how to rebuild it. As a representative of either the City, Islands or Plains you attend a new Unity Parliament where actors lead you through various rounds of decisions. A live writer responds to what the audience does to create scripts for broadcast sections that act as interludes, recapping what has happened and introducing new events. This provides a *fixed syuzhet* for the experience, but what happens in the debates is completely improvised, down to the participants and an expression of an *improvised fabula*. *The Money* (2013–) is another example of the *fixed syuzhet* and *improvised fabula* at work. Players come together around a table for 60 minutes to decide how to spend a pot of money. They can choose to participate as a Benefactor, or observe as a Silent Witness. If a decision is not made, the money rolls over to the next performance. It is always set in a civic decision-making forum and there can be up to 20 Benefactors and 35 Silent Witnesses with two performers who facilitate and moderate the experience, introducing the rules and making sure players adhere to them throughout (Vanderford, 2016). Players are given an A4 sheet with the rules, which include acting within the law and needing to reach a consensus, and are then set loose to discuss and decide. The in-

tent of the piece is to hold open the space of difficulty and decision-making for as long as possible to interrogate how people make decisions and the power structures at work (Kaleider, 2015). There are any number of outcomes including blazing rows and players being surprised by how they acted. The performers are there to hold the frame of the show (the *fixed syuzhet*) and what emerges from that is what the players create (the *improvised fabula*).

This chapter has considered examples of playable stories in the *Internal-Ontological*, *Internal-Exploratory*, *External-Ontological* and *Internal-Exploratory* mode and how they combine story and player agency. The *External-Ontological* mode is the least relevant since it is a more technical than narratological approach. In live work, I have not found examples of players acting as the puppetmasters of an experience that generates unpredictable emergent outcomes, so it is not considered. The analysis of the *Internal-Ontological* mode revealed that in both *digital* and *live* playable stories player agency will always be subordinated to authored narrative in the form of a *fixed syuzhet* but that some live works create a frame that enables a more freeform *improvised fabula*. The thesis has built the case that this *mimetic* mode encounters problems when it pretends more agency than it actually affords and that more interesting narrative affect is generated when the story incorporates the lack of player agency as a way to express meaning. It has also made clear that this mode often has a limited ability to generate empathy as it is more concerned with *self-directed* emotions and reflections on player identity, since players are at the ontological centre of the narrative and play experience. The *Internal-Exploratory* and *External-Exploratory* modes have been shown to negotiate narrative and player agency effectively by separating the shape of the material from the shape of the experience and removing players from the narrative centre. This combination of an *authored fabula* and *dynamic syuzhet* has been shown to use *embedded narrative* to generate empathy and a combination of *evoked narrative* and game mechanics to generate *experiential narratives* out of the event of play. These insights are not intended as a prescription but as a guide to combinations of story and player agency and their impacts. It is a matter of considering the story you want to tell and what form fits best, not trying to squeeze story into an interactive form. This knowledge was used to develop the creative project of this thesis, which will be discussed in Chapter 3.

**The Development of *Underland* as a Playable Story**

*Underland* is the creative project of this thesis and a playable story script for a crime drama video game. It was a means to test and develop ideas related to the practice of making playable stories, and it responds to the academic research conducted into a broad range of playable stories in live, digital and live-digital hybrid forms. The final project is presented as an interactive prototype so that the script can be read as the story is designed to be experienced. It can be accessed at [underlandgame.com](http://underlandgame.com).

A question this thesis sought to tackle was how to achieve the emotional impact and complexity of story, in its traditional sense, in an interactive form where authors surrender some control of it to players. The question was approached from the perspective of creative writing practice with the intention of proposing a creative writing framework with aesthetic and commercial value. Its aim was to ask how to write in a way that enables player agency but also generates empathy and represents complex emotional states? *Underland* went through various stages of development and experimentation in order to explore this question and test ideas. In the course of research it became clear that the mode of interactivity chosen depends on the story you want to tell and its intended delivery platform. Some modes proved more suited to particular platforms (digital or live, for example) and finding a way for form to resonate with the meaning of the story achieved the most engaging negotiations of narrative and player agency.

*Underland* builds on the lineage of story exploration games analysed in the previous two chapters to approach the relationship between author and player as a collaboration of call-and-response. One where players are not being told a story but discovering and helping to build one. Wrapped up in this is the author's job to compel players to play, and then provide effective rewards, in order to create the interplay between *agency* and *responsiveness* that makes a work interactive. *Underland* drew on discoveries from academic research that the representation of character, story and plot through mystery, suspense and dramatic irony, can compel agency that is then rewarded with *spatial*, *temporal*, *epistemic* and *emotional immersion*. It conducted various experiments to work out how best to use these tools in an interactive format so they would deliver narrative engagement *and* player agency.

The choice to make *Underland* a mystery delivered on a digital platform brought a set of challenges with it. Crime fiction has a tendency towards closure—the crime is solved and justice prevails. This trajectory towards a singular and neatly-wrapped ending is a difficult deal to strike with player agency. One answer is to create a branching pathway structure so players can make choices en route to the resolution that effect the way it plays out. *Heavy Rain* (2010) is an example of this approach but there are several drawbacks: the resource time and expense it takes to create a variety of outcomes; the danger that some pathways will not be as dramatically interesting as others; despite offering choice players may still feel funnelled towards an inevitable conclusion. Regardless of these difficulties, the crime genre appealed because of its mainstream adoption in film, TV and literature and relatively untapped potential in games. Using the mystery structure also meant the ability to cast a player as an investigator, which has a natural fit with interactivity and provided a familiar player-shaped hole.

The starting point was the development of the story and then to ask why it was a story that could not be told in another mode? Issues I wanted the story to tackle were: the impact of the Internet on the process of news gathering; gender and sexuality; sexism and power; nonconformity and societal constraints; the impact of childhood on adult identity; its setting in Plymouth; and the personal consequences of the Iraq and Afghanistan wars. The basic plot was in place from the beginning, the challenge was in how it would be told. In 2010, the answer to why it could not be told in a non-interactive mode was too basic: it could, but the aim was to give players an active role. As the story and its telling have become more sophisticated it is now clear that the interactive mode is essential to the delivery of narrative affect in a way that is not available in other formats. The final version of the story demonstrates a new use of dramatic irony that is possible as a result of its ability to combine narrative types in a way unique to the field of playable stories. It also combines the story of journalist, Silvi Moore, with the player-character role of an investigative psychologist, in a coupling of *empathetic* and *self-directed emotional immersion* only available to playable stories. This chapter will explore how I reached that conclusion.

*A large section of this chapter is not available and under embargo because Underland is being developed commercially.*

*Underland's* deployment of different narrative types in order to create narrative drive and enable player agency is what makes this story particularly suited to an interac-

tive format. *Underland* could be written as a novel or film but would lose the dramatic irony that comes from a contrast between *environmental storytelling* and *embedded scene bursts*; the coupling of *self-directed* and *empathetic immersion* by having players *embody* a character and *enact* what they would do in the same situation; the ability to get players to do active work to uncover narrative meaning and make a clear decision on a character's fate that implicates them in the narrative meaning; and the creation of an *experiential narrative* that is unique to each player as a result of the *dynamic syuzhet*. These new uses of traditional narrative techniques are all built on the finding that taking players out of the centre of the story, and putting them at the centre of the experience instead, is an effective negotiation of story and player agency in digital playable stories within current technological limits.

## **Conclusion**

The aim of this practice research was to investigate writing and design methods and practices for negotiating narrative and player agency in Playable Stories. It was responding to a call from within the creative industries to explore the commercial potential of a ‘new’ form of storytelling, and also to the arrival of an audience used to being given an active role by digital technology. The objective of the study was to understand the field through the lens of creative writing; to tackle what methods writers can use to deliver narrative affect and enable player agency and the impact of various approaches. The purpose was geared towards the creation of my own digital playable story, *Underland*. I wanted to explore the aesthetics of playable stories to better understand what makes a critical success in the field and how to couple that with commercial viability to help build a sustainable creative practice. Amongst those broader concerns was a drive to find out how the interactive form could be the best artistic expression of *Underland*’s fiction. It was hoped that the thesis developed out of the academic and practice-based research would provide a useful creative writing framework for other writers and practitioners in the field.

I have conducted this PhD part-time and when I started in 2010 the field of playable stories was in a very different place from today (2016). There had been studies of narrative in playable stories (mostly video games, electronic literature and performance) but there was a gap in the literature in relation to considering digital playable stories from a creative writing perspective, looking in detail at how to execute narratological and interactive theories as a practitioner. In 2010, I found I was working in a context where Digital Humanities had not yet established itself as a discipline at every university and where I was trying to conceptualise a form that had not yet found concrete expression as a creative product. The emergence of Story Exploration Games, *Dear Esther* in 2012 and, more significantly, *Gone Home* in 2013, changed that landscape. They provided concrete examples of ideas I was exploring and helped me to find a way forward in my practice and theoretical understanding. Their commercial success encouraged more creators to take similar approaches and saw more story exploration games reach market and emerge from the domain of independent developers to be supported by major publishers. This also enabled me to take a different research approach and interview the



makers of these games to record the most contemporary knowledge in a young and rapidly-evolving field, gain the freshest insights to develop my own work and offer new knowledge to those in a similar position.

My interest started in digital but in the research period I also worked on several transmedia and theatre projects professionally. This provoked an interest in live playable stories and how practices in theatre and games were influencing one another. The Felix Barrett quote that opened this thesis: “the fact that we can’t get the vocab right proves that we’re in the age of the horseless carriage,” reflects part of an impetus (that emerged in the process of the research) to compare and contrast the methods, practices and terminology in use across digital, live and live-digital playable stories to identify what they could learn from one another through their similarities and differences. This comparative analysis proved an effective means to think through the aesthetics of playable stories in a way that is useful to writers, artists, book and game publishers, game developers, theatre practitioners, arts funding bodies, investors, and academics in game studies, performance, interactive storytelling, creative writing and creative practice.

Chapter 1 of this thesis was a means to lay the groundwork for understanding the terminology in use in the field of playable stories and navigate through the academic context. It is noticeable that there is some siloed thinking where the same phenomena is being discussed within different disciplines using different terminology. In particular, literary academics often discuss digital literature and locative narrative without considering video and street games; meanwhile, digital practitioners can be found to discuss interactive storytelling without considering literary or narratological history (Alderman, 2015). These situations are partly fuelled by a false perception that games must have a win-state, snobbery towards video games as a form, long-playtimes and twitch-based mechanics that have acted as barriers to entry. They are also partly a consequence of technologically-deterministic approaches to interactive storytelling. This thesis sought to break down the silos by considering a wide range of forms (broader than those there was room to discuss in detail) and argue for the use of the catchall term Playable Story as a means to show how knowledge across disciplines, and particularly between performance and video gaming, can be cross-pollinated to deepen understanding.

Chapter 1’s detailed analysis of narratological and interactive theory provided the basis for developing a new theoretical framework for writing for playable stories. It enabled the creation of a new definition of interactivity as the interplay between *agency* and *responsiveness* that could encompass a variety of approaches to negotiating narrative and player agency in anything from performance to digital gaming. It also laid the

foundations for building on established concepts to create four new narratological terms specific to an understanding of playable stories: the *dynamic syuzhet*, *authored fabula*, *fixed syuzhet* and *improvised fabula*. These terms became vital to identifying the specific operations of narrative and player agency in the range of playable stories that were analysed closely in Chapter 2. They also helped to elucidate a contribution to knowledge which argued that, in the light of the current limits of AI, writers who separate the shape of the material (the fabula) from the shape of the experience (the syuzhet) deliver the most effective negotiation of narrative and player agency in digital playable stories.

That claim is tempered by the knowledge that other approaches to the writing of playable stories have still delivered satisfying experiences; but they have not negotiated the balance of narrative and player agency as successfully, tending to tip the scales one way or other. This finding is a challenge to the dominant vision in the field of interactive storytelling of the future of digital narrative as the ‘holodeck,’ a simulated world you can enter as a player-protagonist and that will shape around you narratively. AI cannot yet achieve this so, as a writer with limited programming skills, I had to take a pragmatic approach and think about the field from a different angle. The pursuit of ‘holodeck’ *emergent narrative*, also referred to in this thesis as “liquid narrative,” is a technologically-driven approach to playable stories. It has been a common angle for researchers to take but, on the evidence of recent research and recent video game releases, not yet proved to deliver consistently engaging narrative experiences. Approaching the field from a different angle, through the lens of narratology and the craft of creative writing, was a means of gaining new insights into how that could be achieved. This echoed Pinchbeck’s argument that “we don’t need liquid narrative, we need smarter ways of being able to say: there’s a reason why you’re doing this” (2015b).

The changes in technology witnessed in the study period include the widespread adoption of the smartphone, the growth of the Steam distribution platform (launched in 2003) to 125million registered users in November 2015 (Steam, 2016) and the development of the Unity game engine towards its goal of making game development universally accessible (Unity, 2016). These advances impacted the work that was produced: indie development of story exploration games benefited significantly from the accessibility of Unity and the market available through Steam, for example; and the phasing out of Flash impacted on the maintenance of some electronic literature. The rapidity of technological change in the field suggests unknown futures that will impact on the negotiation of narrative and player agency for writers and the findings of this thesis. The implications of solving the challenge of AI-complete have been referred to throughout

as something that would have a significant impact on understandings of the *Internal-Ontological* mode. However, by approaching the central question through the craft of creative writing and the lens of narratology this thesis avoids being bound by technological form. It seeks to give writers tools for understanding and developing work within current technological realities but its analysis of how centuries-old narrative theories and practices apply in playable story form are relevant beyond their application to particular technological platforms. The reconsideration of player protagonism (of the story or experience) and its implications for *self-directed* and *empathetic emotional immersion* is philosophically, rather than technologically, based. Similarly, the findings on how playable stories as a multimodal and interactive form can support a combination of narrative types that put dramatic irony to work in a new way will remain relevant as a concept to future iterations of technology.

Chapter 2's close analysis of writing and design methods in playable stories focused on their ability to give players a reason to play—to make them care about what happens, why and how. That qualitative analysis, when combined with new knowledge from primary interviews with practitioners on their writing and development processes, provided lessons that helped in the development of *Underland*. The close analysis of texts concentrated on the development of *Underland* as a crime fiction and, as a result, was largely limited to mystery fictions. It would take further research to explore how these findings apply to other genres, like comedy for example; although the analysis and interviews related to *2.8 Hours Later* and my own work on *Zoetrap* provided insights into how the theories apply in horror; *Dr Leon* in how they apply in science fiction; *Resurgam* on how they apply in action-adventure.

The qualitative analysis was aided by the application of Ryan's categorisations of interactive modes into *Internal-Ontological*, *Internal-Exploratory*, *External-Ontological* and *External-Exploratory*. As I have made clear throughout, the *External-Ontological* mode did not form a significant part of the analysis because: (a) it is a technological approach in digital playable stories; and (b) it is rare in live playable stories to position players outside the storyworld to operate as puppetmasters. This could offer a future research direction but was beyond the scope here. These four modes proved an effective way to deconstruct the writing methods and implications of putting players at the centre of the story (*Internal-Ontological*) compared to at the centre of the story experience (*Internal-Exploratory* and *External-Exploratory*). Chapter 1 proposed a new shorthand to refer to this concept in the form of *mimetic* and *diegetic* player experiences. It found that *mimetic* playable stories (in digital) predominately use *enacted narrative*, whereas

*diegetic* playable stories (in digital) predominately use *embedded narrative*, whilst hybrids use a combination of the two. The main findings in Chapter 2's analysis of the negotiation of narrative and player agency in the *mimetic* mode was that it subordinates player agency to authored narrative. It guides players through a fixed, or branching, *experiential narrative* and has associated drawbacks in relation to real-time storytelling, cutscenes and a limited ability to generate empathy because it is often a *goal-directed* 'I' experience, involving mechanical game tasks. This form of player stimulation can limit the ability to tell stories that express emotional complexity in representation of character and in the experience of play. Games in this form overwhelming rely on escapist hero fantasies and act as entitlement simulators in order to sugar the pill of restricted player agency. This is not to say that they do not deliver good narrative experiences. *Tomb Raider* and *Life Is Strange* are both examples of interesting stories told in this mode, but both cast players as heroes. Player centrality in the story has tended to privilege a narrow player subjectivity/expression of character and restricted agency to the enactment of pre-scripted narrative paths. *The Stanley Parable* was shown to make ironic comment on this by throwing into relief the restrictions on narrative agency in the *Internal-Ontological* mode and calling for games to offer more realistic *experiential narratives*; player-characters who do not always win or get what they want, as Jayanth also argued (2016). Digital playable stories work within the current limits of AI, which both Chapter 1 and 2 showed can compromise narrative immersion because of the difficulty in creating virtual worlds that respond authentically to player agency. They can also require the resource-heavy production of branching narratives that grow exponentially, which can dilute dramatic impact. The analysis of *The Beginner's Guide* was a means to open up discussion about how playable stories use the *diegetic* player experience to bypass those problems and explore the potential of the medium to deliver *empathetic* engagement instead.

Contrasting digital to live playable stories in the *mimetic* mode (*2.8 Hours Later* and *Dr Leon: Neural Enhancement*) was illuminating since breaks in narrative immersion caused by anarchic players can be prevented by actors improvising responses in ways NPCs cannot. They also clearly demonstrated how story can be used to set up the parameters and expectations of play. The world of a zombie apocalypse and a futuristic therapy suite provided portals into *liminoid* spaces where players could access an agency beyond their established identities. The *fixed syuzhet* and *improvised fabula* in these examples still meant a restriction of agency to the designed narrative path, often dictated by time and space, but interviews with practitioners revealed useful approaches

to writing and design by creating a ‘choreography of knowledge’ and a ‘choreography of emotions’ to enable satisfying *experiential narratives* produced by an *improvised fabula*. The study of live playable stories in the *Internal-Ontological* mode also showed approaches that enabled more player agency in their design. *The Money* was used as an example that puts the content of the fabula entirely in the hands of improvising players as a means to negotiate narrative and player agency. These findings suggested a useful future direction of study in live-digital playable stories. How might narrative and player agency be negotiated when combining Virtual Reality and theatre, for example? Could putting actors into the VR world to respond to player interaction live create worlds unbound by the digital limits of representing human consciousness?

Live playable stories in the *mimetic* mode were also shown to be ‘I’ experiences that offer *self-directed emotional immersion* above any *empathetic engagement* with other characters and their stories. Players are present in the moment and the narrative is shaped around them. My work on *Press Go* since thesis submission paired *self-directed* and *empathetic* emotion in this mode and saw playtesting reveal how players can lose sensitivity to subtle details when focused on their own in-game tasks. Chapter 2’s consideration of live playable stories that use the *Internal-Exploratory* mode instead was a useful step towards understanding how digital playable stories can offer a ‘deep gaming’ experience with the representation of more complex emotions and the creation of empathy. The work of Punchdrunk formed the major case study for this mode. By separating the shape of the material from the shape of the experience, in a combination of *authored fabula* and *dynamic syuzhet*, Punchdrunk offer a *diegetic* player experience that provides player agency. Players are let loose on a Punchdrunk show to build the story however they choose. This does not impact the content of the story but gives players power over how it is assembled, which creates a sense of ownership and a personalised *experiential narrative* framed by the *evoked narrative*. It also enables Punchdrunk to employ some more traditional techniques in the construction of narrative to create complex characters and use mystery, suspense and dramatic irony to engage players. Though the scale of Punchdrunk shows can impact narrative affect because players cannot experience all the content, the structure has informed the creation of digital playable stories and their effort to negotiate narrative and player agency.

Chapter 2’s qualitative analysis of the story exploration games *Gone Home* (whose creators have been explicit about Punchdrunk’s influence), *Her Story*, and *Everybody’s Gone To The Rapture*, showed how their use of the *Internal-Exploratory* and *External-Exploratory* modes offer a primarily *diegetic* player experience that enables narrative

immersion without restricting player agency. In these games, players are not at the centre of the story being told but the centre of how they experience it. Close analysis of the form, combined with interviews with the makers of the games, showed how this enables writers to use an *authored fabula* to develop detailed plots and complex characters who can generate feelings of *recognition*, *alignment* and *allegiance* that drive empathetic narrative engagement; then use a *dynamic syuzhet* to offer players agency over how they build that understanding of the story. This non-linear structuring activates imagination as players ‘work the gaps’ and configure chains of cause-and-effect. It also enables multiple *experiential narratives* which gives players a sense their journey is exclusive. This structure was also shown to offer further empathetic engagement by filtering the experience of the story through another character, Katie in *Gone Home* and Sarah in *Her Story*. The characterisation of the player-shaped hole can help with the suspension of disbelief into a *liminoid* space that opens players up to considering the story from the perspective of another person.

The chapter also considered how developing the story as one layer and the experience of story as another layer can couple *self-directed* and *empathetic* immersion in a way uniquely available to the playable story form. Using player verbs that have parity with the themes of the story reinforces them and doubles up the emotional impact as players embody character perspective; the active search mechanic in *Her Story* echoing Sarah’s search for an answer to where she is from, for example. It also explored how the dramatic tension that builds up towards climax in linear stories is replaced in this form by the dramatic tension in the event of play; the excitement players feel at operating as a detective in *Her Story*, or the suspense of exploring a haunted house setting in *Gone Home*. The challenge of piecing the story together to reveal the bigger picture, and the dynamic perception changes that can happen as a result, keep players engaged. Chapter 2 concluded that in digital playable stories the use of the *Internal-Exploratory* and *External-Exploratory* modes achieves the most balanced negotiation of narrative and player agency. I should stress that this finding is in the context of the current state of AI and would need to be reconsidered if it develops to the point of seamlessly simulating human consciousness.

The findings in academic research were broadly in line with what I was discovering as I developed *Underland* as a digital playable story (I had discounted making it a live experience because of how that would reduce the size of the market). *Underland* and four other playable stories I made individually and collaboratively in the course of the research—*Zoetrap* (2011), *Resurgam: The Lost Pearl of Plymouth* (2013), *The Art of*

*Getting Lost* (2015) and *Short Changed* (2016)—provided a means to test and experiment with ideas the academic research was examining and also suggested new avenues for research. Chapter 3 was a detailed exploration of the developments and iterations of *Underland* which were inductive to the theoretical framework being developed. The main findings were that writing in the *Internal-Ontological* mode restricted player agency to enacting scripted pathways, made it hard to generate empathy with the protagonist Silvi because players controlled her in real-time, prevented the use of dramatic irony as a tool for narrative drive and limited narrative impact because everything ended up on screen. A way around the exposition problem could have been achieved by using jump cuts (like *Virginia* (2016) or *Thirty Flights of Loving* (2012)) but that would not tackle the fundamental lack of player agency. Once research revealed that separating the shape of the material from the shape of the experience was an effective means of negotiating narrative and player agency I could develop the fictional and experiential narratives separately.

Chapter 3 looked at how the linear plot of *Underland*'s crime fiction was structured so it could be explored in a non-linear way by players. Insights from interviews with Barlow, Pinchbeck, Grian and Lee-Henson on giving each story unit a dramatic and emotional charge were combined with knowledge from McKee about scenes expressing a value change in order to emotionally engage an audience. It was shown how this informed the writing and editing process so story content was constructed in a way that it could be attacked from multiple angles without losing dramatic impact. To track the value changes in each story element I used Evans' concept of the 'choreography of knowledge,' and the concept of a 'choreography of emotions' developed out of discussion with Lee-Henson, but then had to surrender to the fact that the structure did not allow me full control over how it would be received. That was the trade-off for player agency and meant that the *experiential narrative* frame had to compel players in its own right. Chapter 3 looked at how the separation of story and experience helped define the player-shaped hole in the form of the investigative psychologist and how that premise then enabled me to use mystery, suspense and dramatic irony to create narrative drive. The *evoked narrative* of crime dramas also meant I could rely on the detective-like player role—that provided access to evidence, including crime scenes and private correspondence—to be compelling to actively inhabit.

In charting the different iterations of the *experiential narrative* frame, Chapter 3 explored how *Underland* pairs *self-directed* and *empathetic emotional immersion*. The *liminoid* space of the investigative psychologist and the use of player verbs align play-

ers' search for truth with journalist Silvi Moore's. The goal of playing is to find out *if* and *why* she killed Dom Linten and the story themes ask *why* people become killers. Players' *self-directed* emotions in relation to solving the mystery are bound to an *empathetic* understanding of Silvi that is then complicated by the form. The non-linear structure helps to interrogate the themes by continually reconfiguring cause-and-effect and reflecting on the slipperiness of truth.

*A paragraph is not available and under embargo because Underland is being developed commercially.*

The writing process revealed to me how the concepts and terminology that are explored in Chapter 1 and 2 applied in the real. I found that it helped to conceptualise the choice of interactive mode (*Internal-Ontological, Internal-Exploratory, External-Exploratory* or *External-Ontological*) as impacting on the use of an *authored* or *improvised fabula* and a *fixed* or *dynamic syuzhet*, and the types of narrative used (*evoked, enacted, embedded, environmental, epistolary*). Similarly, the choice of player experience (*mimetic* and/or *diegetic*) impacted the mechanics/player verbs available as a means to experience the story, which would then deliver types of narrative immersion (*spatial, temporal, epistemic, emotional*) and forms of engagement (*self-directed* and *empathetic*). The main findings in terms of the negotiation of narrative and player agency are summarised in the below chart:

Authored Fabula	Fixed Syuzhet	In this combination narrative takes precedence over player agency. The focus is on self-directed emotional immersion, though empathetic immersion can also be delivered.
Dynamic Syuzhet	Improvised Fabula	This combination is the technologically-driven field of 'narrative lego' and emergence that did not form a significant part of the study. Agency takes precedence over narrative and the focus is self-directed emotional immersion.
In this combination narrative and player agency are interdependent and on equal footing. It creates a coupling of self-directed and empathetic emotional immersion.	This is a combination found commonly in live playable stories with varying degrees of balance between narrative and player agency. The focus is self-directed emotional immersion.	

Figure 21: Impact of fabula and syuzhet choices on the negotiation of narrative and player agency.

The finding that playable stories can negotiate narrative and player agency in a new way by taking players out of the centre of the story and putting them at the centre of the



experience (a combination of *authored fabula* and *dynamic syuzhet*), enabled a new understanding and use of dramatic irony in interactive form. This thesis showed how dramatic irony was a traditional tool for creating narrative drive by giving the audience more knowledge than the characters in the fiction. This was discussed in relation to Hitchcock and how it intensifies empathetic concern for characters, which deepens engagement with the fiction as the audience anticipates how the action will reach the conclusion they already know. The use of a playable story structure where players are not story-protagonists enables them to know more than the characters, which opens up the possibility of using dramatic irony to create narrative affect. The examples discussed in Chapter 3, and the explanation of its use in *Underland*, showed how it can be used in a way that compliments player agency. *Underland's* deployment of *enacted*, *embedded*, *environmental* and *epistolary narrative* offered a new contribution to understanding the use of dramatic irony in playable stories. The explanation of how *embedded* scene bursts could be played off against explorable *environmental narrative*, so that dramatic irony becomes a consequence of directing your own attention as a player, puts a traditional narrative tool to new use and demonstrates an impact of the academic and creative research practice of this thesis.

In the writing of *Underland*, I was continually asking how to do it so the *experiential narrative* of the player's journey could be represented. This posed the question of why there is not a universal writing format for playable stories (as some game writers have called for) in the way that there are scriptwriting conventions for films and plays? This led to some investigation of how theatre scripts evolved from backstage plots mounted on boards and used to govern onstage performance to the printable documents worked from today (North, forthcoming 2017), and of how film scripts evolved from scene lists to scenarios to continuity scripts to screenplays (Maras, 2009: 90). I wondered if the lack of a format contributed to the treatment of writers in the video game industry as 'narrative paramedics' and if there was potential for the conceptualisation of a format that would enable writers to pitch a speculative script to a developer or publisher that would provide enough information to put it into production.<sup>18</sup> Could this be a means of introducing more diversity into the field of playable stories? This was a line of inquiry I took into the practitioner interviews to survey thoughts and current practices, which proved diverse.

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<sup>18</sup> After submitting this thesis, I wrote a feature article for *gamesindustry.biz* on the topic (Wood, 2017)

Pratchett (2015) discussed not knowing of a situation where a writer had presented a finished script to a team and they had gone on to make it. She cited *Zombies, Run!* (2012) as writer Naomi Alderman's narrative idea and the only example she knew of where a writer was given that much "power, respect and recognition." She described the existence of multiple scripts for *Tomb Raider* and *Rise of the Tomb Raider* and how in her career she had scripted in a variety of software including Word, Final Draft and Excel. She said that she tended to use the sensibilities of screenplay writing with the addition of noting gameplay triggers to scenes, but that with the *Tomb Raider* games they found they needed to visually represent the script to communicate to other team members what they were trying to achieve. She said that any format would have very different requirements depending on whether the game was a role-play, first-person shooter or real-time strategy and concluded that because the process of game-making was so collaborative and fluid, building up narrative literacy in the industry, embedding writers better in teams and getting every member of a team to support story and understand their part in it would be a better approach and help to overcome disjunctures between narrative and gameplay. She said: "I don't think it's about the tools at all, it's about the people."

Barlow (2015b) said he believed that giving writers time to develop ideas and present a script would likely create more diversity but the games industry did not work like that, through a combination of lack of understanding about what writers do "beyond words on the page" and a reluctance to add any more time to what was already a long production cycle. He wrote and made *Her Story* autonomously and said how he initially purchased flow chart software thinking he would have to map out the various experiential pathways but did not use it after testing the Porco transcript and discovering the success of the mechanic that enabled non-linear exploration of the content. He said the *Her Story* videos were scripted like a film and that film writing conventions like Act structures had informed his other writing in games. He said he had spent six months before *Silent Hill: Shattered Memories* (2009) was signed working out the whole game, which proved useful when it came to production because everything could be checked against the very detailed outline. He added that outlines tended to act as the de facto script and a means to budget and plan and that "you might have people who have an idea for a game but haven't sat down and written it because there is no market for someone saying here's a finished script, it's ready to design" (Barlow, 2015b).

Pinchbeck said that *The Chinese Room* gets pitched scripts often but always reply to say that the fun of it is coming up with the ideas (2015b). He argued that the best ve-

hicle for conveying the experience of play was a prototype of the game and that there was no replacement for team members talking to one another to marry conception and execution. The studio used a wiki tool called Confluence as an information sharing portal for *Everybody's Gone To The Rapture* and could view scenes by timeline, location and character. They gave basic scripts with virtually no stage directions to the actors and hired a director to block it out in rehearsals like a theatre play. As noted in the introduction, Blizzard is a games company that is evolving its script format so they are more user-friendly for actors and therefore likely to produce a better outcome. Pratchett similarly cautioned against ever giving an actor an Excel spreadsheet and other discussions and research revealed that game companies often have their own proprietary software for scripting, Suite at Square Enix for example. Fullbright's Karla Zimonja (2015) said in email that the only concatenated script they had for *Gone Home* was the one that was used for voiceover recording and Steve Gaynor (2015) added that it was simply the audio diary texts in linear form. His Designer's Notebook features a mixture of notes and diagrams that chart the development of the concept (Gaynor, 2015). Since they too are a small studio, the conception and build could be done in tandem. As a result none of the other text was compiled in a central location.

The realm of live playable stories revealed various other approaches. The scripts for *2.8 Hours Later* were informed by filmic conventions, structured in Acts and developed collaboratively. Evans (2015) said Slingshot used Google Docs to house them and developed a format that expressed a "choreography of knowledge" and wrote players in, with phraseology like "it's a dark and dingy space where the PLAYERS make their way through a poly tunnel" (Evans, 2016). He described how they wrote dialogue bullet points for actors with information they needed to cover, rather than scripts to deliver verbatim. He said "In that bare bones structure, there's the starting point and then there's the outcome, what goes on in the middle is the nature of the experience which is unpredictable [...] There needs to be the unknown in there otherwise it's not a game" (Evans, 2015). He added that the workshopping and rehearsal process was vital to making sure actors translated those scripts into performance that accounted for an array of interactions and prepared for the unknown. They always playacted the drunk and aggressive player scenario, for example. This is similar to what we did in the scripting and rehearsal process for *Press Go* by designing for three levels of player interaction: novice, experienced and tester.

The process of scripting with space in it for unpredictable player behaviour and performer improvisation is akin to Lee-Henson's approach of "scripts with

pockets” (2015a). She said that she works in a “sketchbook way” and approached *Dr Leon* from the point-of-view of it being a real therapy session and asking what that would need to achieve? She presented actors with a list of desired outcomes and the pre-narrative videos she had created to “market” the therapy; then they workshopped the structure theatrically. From that she developed a five-page document that broke the experience into its constituent parts from the point-of-view of the performers: surgery prep; pre-care; medicine; operation and aftercare (Lee-Henson, 2015b). Each page bullet-pointed the aims of that section of the experience, any processes players would be taken through, and dialogue and interaction options. It held a frame but within it was space for improvisation in response to the specifics of individual players. Those documents could be used to remount the experience but it would also need a rehearsal process. In contrast, theatre company Ontroerend Goed has produced a book of “Blueprints” to facilitate other theatre makers staging their interactive productions (2014). They offer an outline of the concept, requirements in terms of props and staging, a description of its creation, and a script that writes in an idea of what the player does and feels in response to performers.

The range of processes and perspectives I uncovered through preliminary research suggested that writing formats for playable stories merited a research project in its own right and was not something achievable within the scope of this project. I think there is potential for future research into what a speculative script process might look like in playable stories and the impact that might have on writers’ roles. However, it was clear from my interviews that writing for playable stories is overwhelmingly viewed and practiced as a collaborative art like filmmaking, rather than resembling the solitary process of a novelist. Though that does not negate the potential value of a scripting format that could be used collaboratively and help represent *experiential narratives*.

I fed these insights into the decisions I made about how to present *Underland*. If I were to do this over again, I would look into funding options for realising the script as a prototype with an example of the explorable environments and scene bursts rendered to demonstrate the new form of dramatic irony at work. However, because of the sometimes messy nature of the research process, with creative experiments suggesting academic avenues of inquiry that fed back into the creative work, and the particularity of a young and rapidly-evolving field with frequent technological advances, the final version of *Underland* did not get clarified until toward the end of the research process. Unsatisfied with presenting it as a linear document, I built my own digital and interactive script prototype in Adobe Muse so that it could be read in the non-linear way it was designed

to be experienced. This bypassed the problems of representing the *experiential narrative* in the text. That prototype can be found at [underlandgame.com](http://underlandgame.com) and is in a form that can be pitched to publishers. *Underland*'s place in the crime fiction genre and its balance of narrative affect and player agency makes it a suitable project to pitch as a partnership between a literary and games publisher. The fact that it is a Story Exploration Game (SEG) that does not require much technical skill and can be played on tablet and desktop devices, as well as consoles, gives it broad market appeal. The academic research into interactive modes has shown it is a proposal that would work in both the gamer and book markets. It would be built in Unity or Unreal and distributed on the Steam platform, where similar fictions have been successful, as well as through App Stores, for a more mainstream crime fiction market.

The final script proposes a markup language for digital playable stories that is based on Jenkins classifications of types of narrative used by game designers (2004). Each story asset is marked up to identify the use of *enacted*, *environmental*, *embedded* or *epistolary narrative* to make it clear to readers how it would be executed. It was through the process of marking up the text that I discovered exactly how the combinations of narrative type enabled *Underland* to use dramatic irony in a new way to maximise dramatic affect. It was possible to see how the choice of content and its deployment could intensify the dramatic irony in a way unique to an interactive format.

*A paragraph is not available and under embargo because Underland is being developed commercially.*

This insight into a new deployment of dramatic irony available to the playable story has impact for other writers in the form who are tackling the question of how to give players more knowledge than the characters in the fiction. Its use is allied to a new understanding of how player protagonism can be realised in digital playable stories by separating the story and the experience. Removing players from the centre of the narrative enables them to know more than the story-protagonist as they are not *enacting* the role. This thesis clarified how that works structurally in the creation of the term *dynamic syuzhet*, and showed that this was a way to couple the *self-directed emotional immersion* of player agency with the *empathetic engagement* of narrative in playable stories. These findings are useful to other practitioners seeking to develop their practice in playable stories.

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