Towards a Theatre for Gamers:

A *new paradigm of practice in contemporary live performance as a response to games and interactivity in digital media and performance culture.*

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Preface

I would like to begin by relaying the event that ultimately motivated me to begin this practice as research project. One evening, I was playing *Skyrim* on my Xbox 360 games console and I was alone in my house. I was deeply immersed in my quest as the 'Dragonborn' hero of Tamriel. I had customised a character to my exact liking, put in many hours of effort along my journey and was at a key moment in fighting a dragon and uncovering more of the exciting story-world, when suddenly, in the real world, my phone beeped with a message and I reluctantly paused the game to read what it said. It was a message from a friend inviting me to the local theatre to see a new play. The friend assured me that it was a new and exciting piece of work and that other people I knew would be there. This was the moment I realised that I had to try and do this Ph.D. I knew that the draw of sitting in a darkened auditorium and being ignored by actors who recited their lines had no power for me compared to the opportunities for heroism and action that this game was offering me in that moment. However, my heart sank at this thought. Would I really prefer to be sat here alone playing in my virtual fantasy than join my friends for a night out at the theatre? I'm afraid the answer was yes and this troubled me greatly. Then I considered this: If someone like me, with twenty years of experience of working in and attending live theatre, found themselves so drawn to the powerful elixir of fantasy and control that this game was offering me, then how could a gamer, who had perhaps never even set foot in a theatre before, possibly be motivated to put their joypad down and leave the confines of their virtual reality? How could such a passive experience possibly inspire the gamer, with all their expectations of narrative and form, to switch the console off and make the effort to go to the theatre? Something had to be done and I realised that I had to at least try and make a contribution to this goal. I feared that if we as theatre practitioners were not careful, we could be alienating a whole section of society. We could be condemning them to solo experiences in front of flickering screens and denying them the excitement of human contact and recognition, as they struggle to communicate over digitised relays of their voices, through tinny headsets and microphones. I wish to reiterate: I did not then nor do I want to now see an end to theatre as I have described it in this account. Instead, I want to make sure that gamers are also invited to that part of culture.

Acknowledgements

Firstly, I would like to express my sincere gratitude to the whole range of practitioners, designers, artists, programmers and researchers referred to in this thesis, many of which I have had the great privilege of encountering along this mad and wonderful journey. The whole experience of meeting and playing with you all has had a profound impact on my life and I am eternally grateful to each and every one of you.

I wish to say particular thanks to the following collaborators in this work. Jana Wendler, my collaborator with Playfuel whose enthusiasm and attention to detail has always pushed the work forward. The Larks (Andrew Crofts and Patricia Coleman) and all the people who have been involved with them for bringing me into this wonderful world of playing on the streets. Patrick Jarnfelt and Copenhagen Games Collective for travelling back in time from the future and giving me a glimpse of what will be possible.

The same is true for all of my advisors and supervisors during this research: Richard Talbot for his keen observations and willingness to engage in my discussions, Mary Oliver for believing in my research proposal and the importance of this work, as well as Tracy Crossley for her invaluable third eye during the writing up of this work.

I would also like to offer my sincere thanks to all of the various collaborators who have helped make the work happen and have been so willing to engage in these discussions with me and supported my research process. I thank all the players who have played through the experiences I have been involved in creating and I thank all of those wonderful practitioners for creating truly incredible experiences that inspire me until now to continue this work.

I also have to give thanks and love to my wonderful partner, Silvia, who represents the very gem of the playful city of Matera in Italy, which has changed my life forever.

Last but not the least, I would like to thank my Mother and late Step Father for supporting me throughout my journey in theatre and academia for all these many years now. They have my eternal thanks.

Instructions for accessing Practice as Research Documentation

The documentation for this research project is presented as a multimedia *Prezi* file, which includes photographs, videos and text information.

There are two ways to access this:

1. If you are reading this thesis digitally, then you can simply click on the following link: http://prezi.com/ak4j1g1jnnad/?utm_campaign=share&utm_medium=copy
2. If you are reading a printed version of this thesis then you should find a DVD data disk included in a sleeve in the cover. Load the DVD data disk into your computer and you will be able to access a folder called 'A Theatre for Gamers'. Within this folder there is another folder titled 'Prezi', in which there are both Mac OS X and Microsoft Windows versions of the Prezi file.

I recommend that readers watch the demonstration video I have made that shows how to use this *Prezi* file. Please refer to the 'Demonstration Video' file included on the DVD data disk.

Prezi requires a full internet connection (both the online version and DVD data disk version) to fully access the videos embedded within. However, in a separate folder on the DVD data disk, titled 'Video files', offline readers can access all the video content that is included in the *Prezi*.

This thesis references a series of videos found in the documentation of this project. When referencing specific parts of these videos I have adopted a method that refers to the time codes depicted on the video players. For example, (Quack interview, 1:20:15) or (*Know Your Place*, 1:12).

Abstract

How can game design, in terms of its concepts, theories, technologies and notions of play, be applied to the design of live performance and engage the new game playing audience within contemporary society? To investigate this I have carried out a practice-as-research project within an ethnographic framework and informed by action research methodologies. This study has created a practical and theoretical framework (expressed as approaches) for the application of gaming methodologies for use in the devising of contemporary performance.

A Theatre for Gamers has been developed upon three pillars, which are inspired from gaming culture and practice: Agency, Interactivity and Play. Jacques Rancière (2007) has suggested the concept of emancipating the spectator and my research links this argument to concepts of agency and argues that games have the potential to address part of this concern. My research develops understandings of interactivity in performance by applying game-based notions of ergodic and cyber text (Espen Aarseth, 1997) to the field of live performance. It also draws upon fundamental game design principles, such as interactive feedback loops and story-worlds, as presented by Eric Zimmerman (2003) and Chris Crawford (2012), amongst other game theorists/designers. A Theatre for Gamers acknowledges play as a cultural form (Huizinga, 1938) and introduces understandings of contemporary gaming culture, such as McGonigal's four gamer qualities (2011), into live performance.

Several shifts in the approach to live performance for gamers emerge through this research. The focus of activity now centres on the audience and offers them deep interactivity by repositioning them into the roles of players. Performance practitioners become facilitators for live experiences and no longer assume authority over linear, direct storytelling or traditional performance. The process of storytelling focuses more on creating story-worlds, as opposed to story lines (Crawford, 2012), which encourage a more systemic approach to the development of performance and aims to encourage emergent behaviours and narrative.

Chapter One: Context, Aims and Motivations for a Theatre for Gamers

This chapter will introduce the context, aims and motivations for undertaking this practice as research project. Here I will briefly describe this field of practice, which has emerged over the last decade, situating my motivations and aims within my own professional and academic journey, alongside a summary of the historical context that is informed by new practices in performance and development in digital culture and technology. Further to this, Chapter One will outline some of the initial theoretical starting points that helped me to form my research questions and develop the processes and practices that I will describe and analyse in later chapters.

1.1 **Motivations**

The last ten years have seen the global development of the games industry influence many other areas of business, culture and education. Games practice now represents a diverse array of collaborating disciplines. C&T Theatre Company (formerly Collar and Tie), along with other applied theatre companies, has engaged in applying play and games (and gaming technologies) towards educational objectives (2010-present). Jane McGonigal's *SuperBetter*[1] (2012), is an example of a game that helps people achieve health goals. Berlin based Israeli architects, Urban Actions, collaborated with game designers Invisible Playground on *72 Hour Interactions* (2014), fusing architecture and game design together. However, the focus for my research is on the relationship between games and live performance and how these relationships are realised in the development of new performance works and new multi-disciplinary collaborative ventures. This research interprets live performance as real-time events in the physical space, which utilises performers, dramaturgy and theatrical aesthetics.

[1] www.superbetter.com

I have been professionally and academically involved in performance for twenty years. During this time, as a performer and practitioner, I have moved my exploration across traditional theatre, experimental devised work, live art, applied theatre in community/ educational settings, digital theatre and now live gaming. An interest for me throughout this experience has been to question what performance could be. What form could it take? How could it be structured? What content could it contain and how could that be experienced?

Over the course of my academic education I have also developed an understanding of the history of performance. During my undergraduate degree, I studied Ancient Greek literature including the works of Aristotle, Euripides and Sophocles (amongst others), and developed an interest in the democratic potential of performance in these early contexts. The manner in which common and well-known stories, legends and events were relayed back to audiences, already familiar with this content (using poetry, prose and scenography), in an attempt to generate political debate and discussion around given issues, seemed to be also reflected in the dramatic works of the Renaissance, particularly in the plays of Shakespeare and Marlowe. Whether it was the history plays of Shakespeare, designed to promote patriotism or political allegiance, or Marlowe's criticism of the Catholic Church, the audience always seemed to be in some position of knowledge. It interested me how the audiences in those periods were often already knowledgable of the stories being presented to them. They were more interested in how those stories could be presented in meaningful ways. Also the styles of presentation — with stock characters, stock gestures and vocal tones — were well known to the audiences, as echoed through a range of performance practices such as *Commedia dell'arte* to the melodrama of Victorian theatre. In these experiences the audience members were invited to utilise their existing knowledge of themes, styles and content to engage with the performance they were presented with. However, the emergence of realism in the nineteenth century with

playwrights such as Chekhov and Ibsen and performance approaches such as Stanislavski's method, coupled with the development of new technologies, seems to have plunged audiences of live work into the dark in more than one way. This type of work can see the audience sit silently in darkened auditoriums and offers little opportunity for democratic process, debate or community. This is not true for all performance practice and there have been a range of reactions to these issues over the twentieth century. During the 1930s, The Federal Theatre Project (a part of the New Deal program in the USA during the Great Depression) sought to cultivate a civic concept in performance practice that brought together practitioners who made work for and about the working classes (Sporn, 1995). Much of this work was presented in non-theatre venues (including shopping centres, parks and transport stations) and voiced the practitioners' criticisms that commercial performance practice did not expose their audiences 'to the complex, dialectical engagements that the nation's marginal publics experienced' (Sporn, 1995, p.114). In Europe, Bertolt Brecht had 'systematically abandoned the theatrical conventions of the realist and naturalist stage' (Silberman, Giles, Kuhn, 2014, p. 10) and instead argued for an epic theatre where the audience members would be self-conscious and the presentation of performance would be anti-illusionary (Silberman, Giles, Kuhn, 2014). More recently, companies such as Blast Theory have expanded upon such notions through the use of technology and created works such as *Can You See Me Now?* (2003), which 're-centre understandings of globalisation around embodiment' providing new understandings of contemporary issues in digital and globalised culture (Langdon, 2014, p. 114). This research continues exploration in these areas but asserts that games can be utilised to cultivate a new paradigm of performance that engages with the themes of democracy, social justice and digital culture whilst also attracting a new audience of game players.

The five years leading up to the beginning of my Ph.D research (2007-2012) were instrumental in forming my motivations for doing this work. During this time a series of opportunities and experiences would go on to form the basis of my research inquiry. One such experience was working for applied theatre company, C&T (Formerly, Collar and Tie, UK 2008-2012). Although the company was based in Worcester, my role as a drama and media 'animateur' was based in Cullingworth, Bradford at Parkside Secondary School. Embedded within this learning community for five years and applying C&T's original 'dramatic properties' as projects to engage teachers and students within the wider curriculum, the work saw me explore a range of activity across social media, video games, graphic novels, digital technologies and other areas within youth culture[2]. One such project was *The Dark Theatre* (2004), which involved students reading a graphic novel set in the fictional town of Factford. The graphic novel was incomplete with empty speech- and thought-bubbles that provoked the students' curiosity. The story depicted a murder in the local theatre and invited the students to solve the mystery through a use of drama, technology and creative writing. All of C&T's activity was networked (there were other animateurs elsewhere who would work together via the internet), dramatic (utilising narrative, performance, framing, playing and other applications of dramatic technique) and offered agency by placing participants at the centre of the experience. C&T's practice was informed by applying 'process drama' techniques, such as the 'Mantle of Expert', an approach in which children would be positioned within the learning experience as experts in a particular field or topic (as described in *Drama for Learning,* Heathcote, 1995) and documentary theatre techniques (living newspapers and Agit-Prop theatre). The projects also acknowledged the digital technologies afforded to the participants

[2] C&T 'create original dramas that inspire, educate and empower through a mix of performance, learning and new media. We believe that this blend generates creative, learning and democratic opportunities for all, particularly children and young people. Our original thinking results in innovative experiences mixing drama, CD ROMS, DVDs, graphic novels, websites, software and even toys.' (www.candt.org)

(the young people) allowing them to use their mobile phones and digital recording equipment throughout. It became clear to me that this type of experience was akin to being in a game for the participants and these were synergies that I began to explore further both in my C&T practice and individual practice. Even at this stage themes around agency, interactivity and playfulness started to interest me as a practitioner and I also noticed these desires in the young people I was working with. For example, when placed in the roles of detectives in *The Dark Theatre*, the students were more motivated and focused during the lessons, as they had the power to direct the narrative (and their learning) through their own creativity.[3]

1.2 **Collaborations**

Since 2006 I have been an associate artist with The Larks (Manchester)[4] and I have worked with them on a variety of games and live experiences both in the UK and in other parts of Europe. I collaborated with The Larks on work that questioned the relationship between live performance and computer or video games. *No Format* (2007) involved trying to recreate a video game experience using a surreal narrative frame and a treasure hunt mechanism for the audience to navigate a public space. Players had to find the characters (positioned around public spaces in The Northern Quarter of Manchester) in the correct order and a narrative would unfold. *Apocalypse* (The Larks, 2011) was an expansion of this experiment that saw players invited to spend a whole afternoon and evening engaging in a large citywide (Manchester) narrative experience about the coming apocalypse with everyone offered the

[3] C&T's website has information and documentation from a range of teachers in different schools who have used *The Dark Theatre.* For more information see www.candt.org

[4] The Larks combine the spectacle of theatre with the agency of play. Our work sees unexpected blends of gaming, interactivity and the theatrical. We are fascinated by the use of game structures to tell stories, and we are passionate about engaging with 'the now'. In our heavily interactive and reactive work participants are constantly reminded they are part of the unfolding story; making decisions, taking responsibility, affecting outcomes. This makes for a powerful and immediate platform to address topics which may otherwise seem difficult or inaccessible. (www.the-larks.com, 2016)

chance to prevent this from happening. I worked on these projects as a performer and collaborative designer and became compelled when seeing how the audience for this type of work seemed so affected by being placed at the centre of the experience. The unique aspect of gaming concerns the opportunity to create impact within the work due to the design focus on agency and interaction. These experiences were about the audience members and their bodies moving through a space and they would be the protagonists (or antagonists). The actors would facilitate the experience for the players, placing them at the centre of the action. The audience members could make meaningful decisions that affected their experience of the piece of work and, like with computer and video games, this work was beginning to explore the possibilities for experiencing narratives in an active manner whilst from a first person perspective. The main facet of this early work from The Larks was that its core focus was on game design and was specifically inspired from the field of computer and video gaming.

During this research I have now developed collaborations and planned future collaborations with a range of other individuals and networks. They include, Jana Wendler who is a geographer with an interest in urban gaming who collaborates with me on Playfuel projects.[5]

I have also collaborated with an AHRC Research Network based at Manchester Metropolitan University, Copenhagen Games Collective (Denmark) and Casa Netural (a community co-working space in Matera, Italy). These collaborations will often be referenced in this thesis. There are four pieces I have had central input into that represent the findings of this research project and I will introduce that work in Chapter Two: *Methodology*. At this point, it is

[5] Playfuel makes games and playful experiences for lots of different events and settings, from streets to nightclubs. For us, play is not just for children, and we design games that connect fun with wider questions about the world. We believe that play is a unique way of engaging with the world. It puts people at the centre of action, as agents that make their own decisions, create meanings and affect the world around them. Play and games can take place anywhere and are not limited by pre-given (sic) definitions. This makes them powerful tools to explore, question and re-think our daily surroundings (Playfuel, 2015).

pertinent to outline the types of roles and responsibilities I had in the creation of this work. All of this work has seen me practise as a collaborative game designer, dramaturg and performer. More specifically this has seen me creating and testing game mechanics and components for the work, writing and developing story-worlds and characters, delivering game-design workshops to participants as well as performing characters and roles within the presentation of the games.

The work can be separated into two categories of collaborations: with The Larks and with Playfuel. It can be helpful for readers to refer to the *My Practice* section of the Prezi file found on the DVD data disk included in this thesis. This includes details about dates and venues as well as video and photographic documentation of the work. Written documentation of the practice work (scripts and notes) can be found in the appendices section of this thesis.

1.3 **Digital Expectations**

My research proposes that a new paradigm of live performance is needed to engage a contemporary, game playing audience. Since a large section of this audience play games in the digital space, it will be useful to explore aspects of digital culture and expectations. Marc Prensky (2001) coined the term 'Digital Natives' as he attempted to illustrate the cognitive and behavioural changes that people born into a digital culture were undergoing, as he had previously posited in 1998. He described ten differences between digital natives and digital immigrants,

I. Twitch Speed vs. Conventional Speed
II. Parallel Processing vs. Linear Processing
III. Random Access vs. Linear Thinking
IV. Graphics First vs. Text First

V. Connected vs. Stand-alone
VI. Active vs. Passive
VII. Play vs. Work
VIII. Payoff vs. Patience
IX. Fantasy vs. Reality
X. Technology as Friend vs. Technology as Foe (Prensky, 1998).

Prensky has been criticised for the provocative use of the colonialist terms ‘natives’ and ‘immigrants’, as well as his binary approach. However, pertinent synergies between the ten behavioural changes posited by Prensky and the core concepts that underpin game design have emerged in this research (see Chapter Three: *Agency, Interactivity and Play*). These ten differences reflect many aspects found in computer and video games. For instance, many of these games focus on epic story quests that are undertaken through the development of large social networks, and this reflects Prensky’s notion of the digital native requiring elements of fantasy and connectivity in their experiences. Also, video games often encourage ‘parallel processing’ to navigate the game worlds on offer, with players required to engage with multiple mechanisms and objectives at the same time. When considering the digital native’s possible expectations for performance, it is pertinent to use this work as a frame. I wish to understand how performance practitioners and audiences relate to such notions of digital culture, although, as has become clear in this research, not all the practice considered is realised using digital technologies. However, even the more analogue work considered and created in this research (analysed in Chapter Three) is still responsive to digital culture in terms of influences, design approaches and themes.

There is a breadth of research into performance and technology (and wider digital culture) to which this project aims to contribute. For instance, Chris Salter in *Entangled* (2010) charts two generations of artists working in ‘responsive environments’. He outlines a historical context moving from Myron Krueger’s early experiments in human-machine interaction to the

‘fusion between the digital and the physically situated’ (Salter, 2010, p.327) in *Desert Rain* (Blast Theory, 1999). Salter also illustrates the Situationist roots of street gaming. However, less research (both in terms of practice and theory) has been produced in response to the specifics around the gaming culture that has emerged from digital technologies. As Steve Dixon suggests, ‘it will take time (perhaps generations, perhaps the time needed for child game-players to become professors of theatre) for the field of game performance theory to fully develop’ (Dixon, 2007, p.620).

Though many of the specifics proposed in this research project are still little researched in the academic field, there is a relevant theoretical and practical foundation to consider, for instance, the conversation between computer and video games and performance initiated in the later part of the twentieth century. In the early 1990s, Brenda Laurel suggested that the storytelling frameworks in Aristotle’s *Poetics* might act as a useful approach in human-computer interaction (1993). In turn this has led to the incorporation of Aristotelian ideas (such as notions of plot, character, action and consequence) into various educational computer and video game narrative textbooks, such as *Game Writing: Narrative Skills for Video-games* by Chris Bateman (2007). Katherine Whitlock claimed that games had reached ‘a level of theatrical experience worthy of critical examination’ (Whitlock, 2004, p.4) and she explored popular titles, such as *Tomb Raider*, in relation to Aristotle. Whitlock also draws other comparisons, such as that between the award-winning 1997 game, *Final Fantasy VII,* and Brecht’s Epic Theatre. More recently, academics such as Steve Dixon have argued that there is ‘a growing awareness that the artistic and narrative potentials of video games are underdeveloped’ and that, ‘a gauntlet should be thrown down as a challenge to artists as well as games companies’ (Dixon, 2007, p.609). In terms of performance and games, Dixon begins to study the performative nature of Multi User Dungeons, Massively Multiplayer Games and

Role Playing Games as well as a particular focus on the work of Blast Theory (notably *Uncle Roy All Around* You, 2003 and *Desert Rain*, 1999). Arguing for the potential of video games, he suggests that:

> It is as if the skene and orchestra of the ancient Greek theatre suddenly stretches around the world, or the rumbling medieval pageant-wagon is suddenly carrying an extra prop, the Earth, in the spread of a new type of world theatre (Dixon, 2007, p.620).

1.4 **Abandoning the Role of the Passive Viewer**

In *The Emancipated Spectator* (2008), Rancière explores the passive aspects of spectating and he suggests that spectators should be released to a more active role. Although he does not explicitly argue for the end of spectatorship, he does suggest that the audience:

> Must be confronted with the spectacle of something strange, which stands as an enigma and demands that he (sic.) investigate the reason for its strangeness. He must be pressed to abandon the role of passive viewer and to take on that of the scientist who observes phenomena and seeks their cause (Rancière, 2007, p.272).

My research considers Rancière in relation to an emerging, hybrid form of gaming and performance practice. I propose that an understanding and application of game design, theory and practice, within the field of live performance, might to some extent address Rancière and 'release' the spectator from passivity.

There are occasions where Rancière's ideas may appear contradictory in relation to the fusion of games and live performance. Gareth White (2012) points out that Rancière 'stringently takes issue with the political potential of participatory performance, but only to insist that the inherent emancipatory potential lies with its opposite: a respectful distance between performer

and audience member' (Rancière, 2007, cited in White, 2012, p.234). In a Theatre for Gamers, one solution might be to remove the performers all together, as seen in *A Small Town Anywhere* (Coney, 2010), or it may be possible to reconsider the nature of performer and audience, as seen in computer and video games and the research of Brenda Laurel (1993) and Janet Murray (1997). The research I have undertaken investigates a range of boundaries and borders pertaining to the fields of gaming and performance. These include the space between the digital and physical, the terminologies of games and performance, the expectations of gamers and audiences of live performance and also the boundaries between performer and audience. Working at the intersection of these boundaries has allowed me to develop my practice and further the knowledge in this area.

1.5 **Three Pillars of Gaming**

In order to achieve the objectives of this project and offer a series of approaches to creating a Theatre for Gamers, I will highlight some of the relevant qualities found in games and explore how these qualities may be realised in live performance. This research identifies three pillars, each of which acts as a prism for such an inquiry and for the development of new practice. Further chapters will explore these areas with more detailed analysis in relation to literature and practice, though introducing these concepts at this point will help clarify the trajectory of this research inquiry. The first area is *Agency* and inspires a shift in positioning of audience members from spectators to players. The notion of being central to the action (Rose, 2012) with the ability to make decisions that can affect the environment or narrative is a fundamental aspect of games. Spectatorship is not the focus of the experience. Instead players are required to put in effort (physically, digitally or intellectually) to navigate the text or components offered by the game designers. The second area is *Interactivity*, which is defined

as ‘a cyclic process between two or more active agents in which each agent alternately listens, thinks, and speaks’ (Crawford, 2005, p.29). Crawford’s definition offers a clear and succinct understanding of interactivity in relation to games. Crawford argues that games must include ‘two or more active agents’ that have the ability to respond to each other in terms of actions and interpretation. ‘Agents’ can be defined as computer programmes or as other human players who are either mediated via computer technology or present in the physical space of the game. The final area is *Play*, which is expressed as something all human beings have ‘inherently’ (De Koven, 2014). According to De Koven, game structures are successful at manifesting our playful instincts due to an innate ability that human beings have in being able to recognise ludic activity. In this sense, play is seen as a universal aspect of the human experience that game designers attempt to draw out in their work.

The objective of this research project is to investigate how these three pillars of games can be promoted in live performance. The project investigates how performance practices can be impacted by game design to engage a game playing audience. It explores which approaches can be developed from the spheres of digital and physical gaming for application in live performance. This objective can, therefore, be expressed as two research questions:

1. Which approaches can be developed to fuse game design mechanics into live performance?
2. How are the performance practices considered in this study impacted when merged with game design, gaming culture and gaming technologies?

Chapter Two: Methodology

2.1 **Practice as Research**

This is a practice-as-research (PaR) project expressed as a dialogue between written and practical elements. The whole project is presented as two parts: a written thesis and a self-contained *Prezi* application file found on the DVD data disk included in the submission.

The written element of this project was developed through an exploration of existing theory, a review of existing practice and new practice (including my own), interviews conducted with selected practitioners and accounts of my participation within the work created by the community of practitioners. This thesis unpacks this material through the prism of the three pillars of agency, interactivity and play introduced in Chapter One: *Contexts, Aims and Motivations for a Theatre for Gamers*. Therefore, Chapter Three: *Agency, Interactivity and Play*, is presented in three parts that each respectively explores these notions in relation to the literature review, the practice review and the interviews with the practitioners. This thesis attempts to act as a 'clew' (an old sailing term for a thread) that weaves across the entire process and all activities, tying together the motivations, theories, approaches and findings (Nelson, 2013, p.10).

Prezi was chosen as a way to present the practical aspects (as well as other useful reference materials) due to its accessibility and digital functionality. The *Prezi* is presented in four distinct sub-sections: *My Practice*, *Interviews, Gameplay* (digital and physical games I have played) and *Live Performance* (selected interactive, immersive or game-based performance I have attended). The *My Practice* section presents my original practical work that was created through the collaborative design, development, investigation, presentation and analysis of

relevant literature, live games and playful experiences. Chapter Four: *Creating a Theatre for Gamers* analyses my practice in relation to my research objectives and describes my proposed approaches to making this work and their subsequent application within the work presented in the *Prezi* file. The *Interviews* section includes recordings of conversations I had with selected practitioners (this method is described later in this chapter), and that I refer to in detail in Chapter Three: *Agency, Interactivity, Play.* The *Gameplay* section includes video and photographic examples of the gaming experiences (both digital and physical) I have partaken in and position here in terms of their contextual influence in Chapter Three. Finally, the *Live Performance* section includes video trailers and information about the pieces of live performance I have attended during my research, which are also discussed in Chapter Three. The outcomes of this project, described in Chapter Four and Chapter Five, offers five selected approaches (tested in my practice) that are proposed for application by performance practitioners wishing to engage with this field.

The aim of this project is to investigate (and contribute to) a new and emerging form of practice through practice itself, with practical activity at the centre of the research methodology. This practical activity is defined in two different ways. Firstly, there are four live games that I have created through collaborations as a practitioner with The Larks (Manchester), Playfuel (Manchester), Copenhagen Games Collective (Denmark) and Casa Netural (Matera). Secondly, there are a series of live games that I have played and in which I have generated practical work (as a player) from within the process of the game. Examples of this can be seen in the *Gameplay* section of the Prezi. Thus these elements (the literature and practice review, participation within in the field, the interviews with selected practitioners and the creation of new practice) can be understood as forming a multimodal approach bringing selected research methods into play (Nelson, 2013).

This material holds a personal interest for me[6] but I have also explored this area professionally through the collaborative and commissioned work described in Chapter Four. This project is an attempt to move professional practice-research activity into a more academic practice-research process whilst maintaining my dual position as a professional and academic.

2.2 **Insider Knowledge in a Community of Practice**

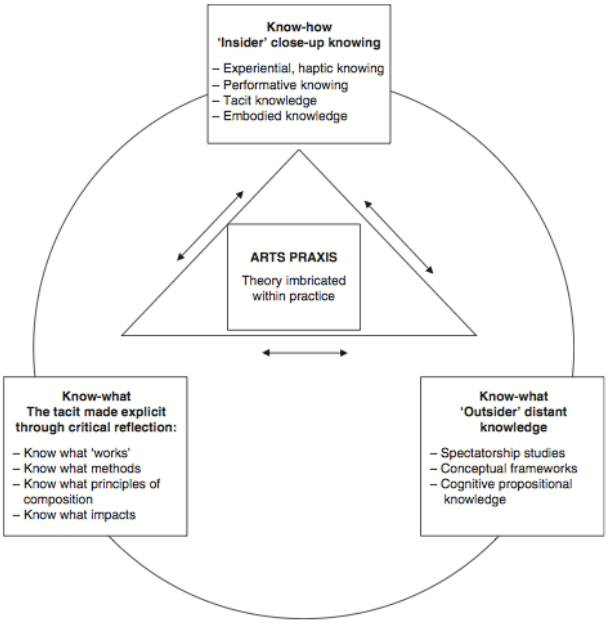

Figure 1: Modes of Knowing (Nelson, 2013, p.37)

The concept of 'insider close-up knowing' and 'the tacit made explicit through critical reflection', as expressed in the diagram above, is pertinent when considering my position as an active practitioner within this field. It is also relevant when considering myself as a 'digital

[6] Due to my established position as a theatre practitioner, game designer, performer and also as an emerging academic, Robin Nelson's categorisation of different types of research are worth outlining at this stage:

> • Personal research — involves finding out, and sifting, what is known.
> • professional research — involves networking, finding sources and collating information.
> • academic research — involves conducting a research inquiry to establish new knowledge. (Nelson, p25, 2013)

native' and game player who is making performance within a digital and playful community. During this activity I can reflect critically upon the tacit information my position affords me and Nelson's diagram demonstrates the value of my own 'insider' knowledge. This can allow me to consider how to reflect upon the quality of inherent playfulness (De Koven, 2014) as well as the digital behaviours I exhibit, as posited by Prensky (1998).

The methods I have chosen are inspired by the notions found in Etienne Wenger's theory of 'communities of practice' and this concept also informs the justification for my chosen activities. Wenger describes communities of practice as 'groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.' (Wenger-Trayner, 2014). This project references activities and dialogue within an international community of game designers, performance makers and researchers. Wenger's three characteristics of domain, community and practice (Wenger-Trayner, 2014) provide an apt set of co-ordinates for understanding the operation of this international community and their contribution to the discussion here. As a participant-observer-researcher and practitioner I have identified and share a domain of interest in games and playfulness. The loose and shifting community engages in joint activities and regularly shares information and the informal community of practice (brought together by attendance at festivals, online seminars and through gameplay itself) also develops and shares a range of tools and approaches to further develop the practice. Such activities concur with Wenger's list of activities that communities of practice engage in: problem solving, requests for information, seeking experience, reusing assets, co-ordination and synergy, discussing developments, documentation, visits and mapping knowledge/identifying gaps (Wenger-Trayner, 2014).

I argue that this research is situated in a culture that expects and even demands interactivity.

The players, designers and makers that this research focuses on all work and play in settings that encourage and deploy forms of interactivity. The conceptual framework offered by Marc Prensky and the notion of the 'digital native', although open to much criticism in terms of anthropological and sociological study, is relevant in this context as it acknowledges the digital society that much of this work, even though it is often manifested through analogue means, takes place in. The analogue nature of much of this work offers a synergy with live performance and theatre (in that it involves live action in physical spaces). Even the utilisation of digital technologies in some of this work focuses on action away from screens as described by the concept of computer-mediated games in Chapter Three (see pp.61-62).

Acknowledging this digital landscape has been instrumental when considering some of my research methods, which have been organised through engagement with social networking media (such as Facebook, Linked In, Google Hangouts) and Web 2.0. technologies (such as YouTube and Vimeo). For example, many of the games I played were brought to my attention via social media websites (such as Facebook) and involved me creating YouTube videos during my application to be part of the events. One example can be seen in the *Gameplay* section of the Prezi file, where I created a video application and post-game feedback video for *Basilicata Border Games* (Matera, 2013).

I embedded myself within the activity of this field and did not just take an observer's approach. If the designers, makers and players within this community are all interested in having experiences that reconsider spectatorship (though may still offer the opportunity for it) then it is appropriate that the research methods deployed in this project involved practice and interactivity rather than spectatorship or observation. There have been some opportunities to take on the role of passive observer but the focus of activity in this research has always been

about contribution and interaction.

Being a part of this international community (since 2011) has allowed me to develop the appropriate relationships to deploy the practical methods used in this research. Making work as an individual or collaborating with The Larks and Playfuel in the UK, attending festivals and conferences with game designers and performance practitioners across Europe, interviewing members of this community over online interfaces (and recording these) as well as participating in selected games as a player have all involved me fusing my role as a creative practitioner and an academic and developing a reflexive dialogue between the two functions.

This methodology allows me to gain a deeper understanding of the questions my research poses and is informed by action research methodology. The definition offered by O'Brian (1998) considers this approach in terms of practice as research:

> Action research is known by many other names, including participatory research, collaborative inquiry, emancipatory research, action learning, and contextual action research, but all are variations on a theme. Put simply, action research is "learning by doing" — a group of people identify a problem, do something to resolve it, see how successful their efforts were, and if not satisfied, try again (O'Brian, 1998).

O'Brian's terminology helps to revise my understanding of practice as research (along with that of Nelson) and develops a lens with which to consider my own practical research. 'Participatory research' reflects my participation in various game projects and with practitioners within the gaming community. This has given me first hand knowledge and experience, which has informed the development of my five proposed approaches.

‘Collaborative inquiry’ is manifested through the range of collaborations I have formed in the practical work, both as a designer and a player, allowing me to explore the two research questions outlined in Chapter One. ‘Action learning’ resonates with the interactive quality of gaming that informs an approach of not solely focusing on literature and practice review but also being active within the process of ameliorating relevant issues within the field (as represented in the *Prezi* file). As O’Brian suggests and as is also true with gaming, this project focuses on ‘learning by doing’.

2.3 **Methods**

Both the fields of games and performance are wide and varied so my research has distinguished a set of clear source materials for the inspiration and development of this work. One such distinction is the focus that any live work considered had to realise game design in some manner and not be just thematically concerned with gaming culture. This includes the immersive qualities in work attended from companies like Punchdrunk or dreamthinkspeak or the utilisation of game-based design in work from Coney. Similarly, all computer and video games considered had to engage in some way with notions of performance, which includes the epic narratives and use of actors found in games from Bethesda Studios, Telltale Studios or Rockstar Games.

2.3.1 **Existing Literature**

Robin Nelson suggests that he does ‘not accept that a review of literature is always necessary…for a traditional arts and humanities Ph.D’ (Nelson, 2013, p.34), yet this project has attempted to fuse together two arts/design areas whilst identifying an emerging area on

which there is little literature. There is however a wealth of material (literature and practice) in the two separate fields of immersive (or interactive) performance and game design or play theory and this is why a literature review element to the writing is valuable, albeit very focused on specific chosen areas. This offers my research the opportunity to consider the relevant concepts and theories used in both respective spheres so that I can critique and unpack the relevant themes and notions in relation to my research questions.

This research identifies several texts and writers that are relevant to the development of a Theatre for Gamers and are analysed in relation to existing practice, other literature and the interview material in Chapter Three. Espen Aarseth's *Cybertext* (1997) introduces us to the notion of ergodic texts and I focus on this work to highlight a relevant distinction between the narrative experiences in games and other forms of media. Eric Zimmerman and Katie Salen's *Rules of Play: Game Design Fundamentals* (2004) offers an in-depth study of game design techniques and allows this research to identify the main approaches in successful game design and then analyse these in relation to the practice review and practical work created. *Chris Crawford on Interactive Storytelling* (2005) deepens our understanding of the term 'interactivity' (for game players) whilst also offering approaches that underpin the development of narrative within games. Jane McGonigal's *Reality is Broken: Why Games Make Us Better and How They Can Change the World* (2011) outlines the motivations and expectations for game players and explores how games successfully engage our attentions. Bernie De Koven's *A Playful Path* (2014) argues for the importance and relevance of play in human society and inspires many of the practitioners interviewed in my research. Finally, Jacques Rancière and *The Emancipated Spectator* (2007) is interpreted as a motivation for a fusion of games and performance and aids in articulating the criticisms of the live performance I attended from a game playing perspective.

2.3.2 **Games**

The initial stage of this process involved me playing games and creating informal notes, questions or ideas during these experiences. The objective was to then seek models, influences, inspirations and design techniques that could be deployed in my practical work. When playing these games I drew upon forms, structures, moments and models of interaction that could be applicable in the practical work and I draw attention to examples of this in Chapter Three and Chapter Four. My research has focused on the following three types of game texts or experiences:

1. ***Computer and video games*** defined by Whitlock (2004) as being any game played on an electronic device such as a computer, television or smart phone.

2. ***Social games,*** where '...play consists primarily of social interaction between participants' and have '...no material components' (Salen and Zimmerman, *List of Games Cited*, 2004).

3. ***'New New Games'[7],*** are games that, 'blur the lines between technology, social interaction, location and story' (Reid, 2013) and see play as '...a force that has the power to intervene with the rigid structure we call society' (Steenhuis, 2013, p.2).

Below is a summary of all the games that I have played during the course of this research, examples and trailers of which can found in the Prezi.

2.3.3 **Computer and Video Games**

As established in the introduction and abstract, the video game industry has grown exponentially over the past thirty years[8] and there are a plethora of video and computer games that this research could engage with. I have chosen four video game titles to consider, each of

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[7] 'New New Games' is a term I have heard used in conversation at the various festival events I have partaken in during the course of this research. The games presented at these events are both 'new' material as well as 'new' forms, hence 'new new games'.

[8] The global PC and consoles games revenue between 2014 and 2019 is $101.62bn, http://www.statista.com/topics/868/video-games/

which I played on the *Microsoft Xbox 360* console. They are: *Grand Theft Auto V* (Rockstar), *The Elder Scrolls V: Skyrim* (Bethesda), *Dishonoured* (Arkane Studios) and *The Walking Dead: Series 1* (Telltale Games). Video trailers for each of these computer games can be found in the *Gameplay* section of the *Prezi* file. The reasons that I have chosen these titles are:

1. They are all popular video game titles that have successfully engaged a very wide audience. It is this type of audience that this project seeks to engage also and so the analysis here questions why these games have proven so popular and what can be learned from them for performance makers wishing to engage audiences in this sector.

2. They all engage with genre fiction and offer narrative worlds that their audience already have an understanding of (due to popular culture, films, television and music) before they enter the game. In these games players often know what might be expected of them, what they might want to do (or think to do) and what type of experience they would like to simulate or emulate. The analysis in Chapter Three will focus on how this is achieved and what are the consequences for players.

3. They are all predominantly narrative-based games that often engage with epic themes. They engage with dramaturgs, actors, sound production and cinematographers in their development and production. This focus on narrative games resonates with theatre, drama and performance as discussed in the research of Whitlock (2004).

Grand Theft Auto V

GTA V (Rockstar, 2013) is the first of the two 'sandbox' or 'open world'[9] games that I played. Set in a highly detailed recreation of Los Angeles and Hollywood (called Los Santos in the game), the game sees players take on the role of three fairly disparate characters who all engage with the underground crime movement and are linked together in a cinematic linear narrative. The game sees players being able to swap and choose between these three

[9] An open world is a type of video game level design where a player can roam freely through a virtual world and is given considerable freedom in choosing how or when to approach objectives. The term free roam is also used, as is sandbox and free-roaming. (Wikipedia, 2014)

characters at will as they progress through the story, though the game also allows for non-linear (and non-narrative-based) game play. In this game you can explore a virtual city landscape, engage with a multitude of characters and even join your friends online for a variety of sub games from criminal 'missions' to car races to even a game of tennis.

The Elder Scrolls V: Skyrim

Skyrim (Bethesda, 2011) is the second 'sandbox' game that I have engaged with in this research. Set in an epic fantasy world of elves, monsters, dragons and magic, the fictional land of 'Skyrim' is but one part of a larger fictional continent (Tamriel) that this series of games is set in. The game world spans approximately sixteen square miles of virtual landscape including towns, villages, mountain ranges, rivers and hundreds of non-playable characters (NPCs). Players are invited to choose one of ten available races, customise their appearance and then lead them on a huge quest that sees them fulfil their destiny as the 'Dragonborn', capable of defeating the swarm of dragons that has descended upon the land. Throughout the game players can customise their development by choosing new skills and abilities via an in-game menu as they earn experience points and complete tasks. This game also allows players to choose the direction of their dialogue with different characters they interact with, therefore encouraging players to decide what type of character they would like to portray.

Dishonoured

Dishonoured (Arkane Studios, 2012) is a revenge tragedy set in a steampunk[10] dystopian world that has the aesthetic of a highly anachronistic Victorian England. Players take on the role of protagonist 'Corvo Attano', an agent and bodyguard to NPC 'Empress Jessamine

[10] Steampunk is a sub-genre of science fiction that typically features steam-powered machinery, especially in a setting inspired by industrialised Western civilisation during the 19th century. (Wikipedia, 2014)

Kaldwin'. When he arrives back in the 'Empire of the Isles', he finds himself stripped of his title of Lord Protector and imprisoned by the usurper, 'Hiram Burrows', who accuses him of the murder of the Empress and the abduction of her daughter, Emily. After escaping from confinement on the eve of his execution, Corvo becomes an assassin for a group of conspirators and the game sees players guiding Corvo on his quest for revenge, allowing players to make the decision as to how bloody this revenge will be.

The Walking Dead: Series 1

Set in the same universe as the comic book series and television show (originally created by Robert Kirkman) *The Walking Dead: Series 1* (Telltale Studios, 2012) is a type of interactive dramatic novel that fuses animation and narrative together. It places players in control of protagonist Lee Everett, who appears to have been arrested for murder and is being taken to prison before the full nature of the zombie apocalypse is revealed. Players guide Lee on his quest for survival making a series of real-time decisions throughout the narrative.

2.3.4 **Social Games**

The area of social games (as described by Salen and Zimmerman, see p.22) is also pertinent to consider in this research due to the immediate co-presence of players. Social games see players performing actions in the real world (with 'no material components') and they often resonate with much of the performance practice in the established field of participatory theatre work. For instance, like process drama and forum theatre, social games invite participants to take on fictional roles and become performers within groups of non-professional performers. Also, they are often performed without the presence of a live audience and offer the flexibility to move in and out of performative modes.

My research considers some aspects of social games (described in Chapter Three) and through my practical activity I have engaged with two such games: *Werewolf* (with The Larks*)* and *Train Mafia* (with Copenhagen Games Collective). Evidence of this activity can be found in the *Gameplay* section of the *Prezi* file. As with the computer and video games, the approach here has been to play the games and attempt to draw approaches that could be applied to my practical work.

Werewolf

Werewolf is a popular social game that is played all over the world. The original name for the game (and original narrative setting and aesthetic) was *Mafia* and it was originally developed by Dimitry Davidoff in the USSR in 1986. In this game, players are presented with a conflict between one group (The mafia) and another group (The innocents). Before starting, each player is secretly assigned as part of one of these two groups. The game play is split into two parts: night and day. During the night, members of the mafia may murder members of the innocents and during the day members of the innocent can discuss who they think are members of the mafia and elect to eliminate them from the game. The game is concluded when either all of the innocents have been killed or all of the mafia has been eliminated.

A popular reinterpretation of this social game, which uses exactly the same mechanics but introduces a new story-world, is *Werewolf.* In this version the mafia is swapped for 'werewolves' but the game is played in exactly the same manner. There are however a multitude of different rules, roles and configurations that can and have been developed and adopted by players.

Train Mafia

Train Mafia (Copenhagen Games Collective, 2013) is the same game text as *Mafia* and *Werewolf,* as described before, except in this version, Copenhagen Games Collective decided to reconfigure the setting of the game to the underground public transportation system in Copenhagen. Usually this social game is played out in a single space with players who are 'out' of the game simply sitting back and watching the rest of the action unfold. In this version, the action takes place in a train carriage and therefore possesses a pervasive quality that interrupts the usual commuting experience. When players are eliminated, they have to leave the train at the next stop and then walk the rest of the way to meet the players at the end of the game.

2.3.5 **New New Games**

These games are often experimental and sometimes fuse innovative uses of new technologies with simple game mechanics. Some of the games in this field are more complex (often using sophisticated technologies) and some are very simple (using barely any technology at all). Some are short and simple games that last for ten to twenty minutes and some are long experiences that last up to a week. There are six particular games that I have been exploring in this area during my research. Describing the fine details all of these games is challenging in a written thesis as they are often very complex. Instead, I offer brief descriptions below and a series of video trailers included in the *Gameplay* section of the *Prezi* file that best illustrates what these games are and how they are played.

Turtle Wushu, Invisible Playground, 2011

The first is *Turtle Wushu* from Berlin based Invisible Playground*:*

Game instructions:

1. Balance a plastic turtle on top of one of your hands.
2. Form a circle and join your turtle hands together. Slowly move your hand away from the others and whisper 'Turtle Wushu!'
3. The game starts when all turtles are at a suitable distance from each other.
4. Use your free hand to try and hit the other turtles off your opponents' hands — whilst protecting your turtle at the same time!
5. Only hitting the hand is valid. Any other body part is a foul. The last turtle standing wins.

Idiots Attack the Top Noodle, Copenhagen Games Collective, 2012

The second New New Game is *Idiots Attack the Top Noodle* from Copenhagen Games Collective:

Game instructions:

Using a set of Playstation move controllers and a Neurosky Mindwave EEG Brainwave Scanner

1. Idiots can only move slowly.
2. Idiots try to catch the brain.
3. Brain can zap idiots when charged.

Basilicata Border Games, Focus, Matera, Italy 2013

Basilicata Border Games was a project designed by Milan-based game designers Focus (http://www.focuscoop.it). This 'new new' game lasted for one week and was played four times, in four different cities in the Basilicata region of Southern Italy, over the summer of 2013. I took part in the final game in the city of Matera. The game involved five teams of players from across Europe, each given the name of an animal (I was in Team Horse) who each day had to complete a series of missions across their own particular part of the city of Matera. The missions all involved interacting with the public, performing stunts, learning new things, talking with people, throwing parties, cooking food, amongst many other everyday activities. Each mission was worth a certain number of points and had to be documented and uploaded to a website each day. At the end of the week the team with the most points had won.

72 Hour Interactions, 72 Hour Urban Action and Invisible Playground, Witten (Germany), 2014

This was the fourth iteration of *72 Hour Interactions*. The project was originally a purely architectural game/challenge that involved teams of architects and structural designers arriving in a town or city somewhere in the world, being given a piece of derelict land, a small budget, a workshop and tools and then seventy-two hours to design and build something that would improve the area. The creators of this game/challenge are known as 72 Hour Urban Action. The version I played in Germany was an experiment with Invisible Playground (Berlin) to see how game designers and artists could work with architects on such a challenge. Teams were made up of eleven to twelve people from around the world who were each given a piece of unused public land and a specific mission to guide their design process in the

seventy-two hours allotted. The mission for my team was, 'Create a reason to get lost'. The concept was that this 'lost property office' was somewhere you would visit if you had lost your time, heart or courage and involved players/visitors moving through a structure filled with white ribbons, which they could sign or leave stories on with marker pens hanging in the space[11]. The game element involved trying to find the various heart, time and courage symbols that were hidden within the piece and then trying to find the exit to a peaceful garden area at the back of the structure.

Weeping Angels, Philipp Ehmann, Street Game Conspiracy, 2013

This game is inspired by the 'Weeping Angels' characters of the cult science fiction series Doctor Who (BBC, 1963-present). It is a physical chase game played in the dark that seeks to promote fear and feelings of persecution in its players. There are two teams of players, 'Angels' and 'Doctors'. The Doctors are attempting to find a hidden treasure in the physical landscape whilst the angels attempt to convert all of the Doctors into Angels. The Angels convert the Doctors by making physical contact with them but cannot move whilst the Doctors shine their torch light on them. The game is won when either all of the Doctors are captured or one Doctor finds the hidden treasure. I played this game several times at various festivals across Denmark, Netherlands and Poland.

Early Days (of a better nation), Coney, 2012

Described as 'a piece of interactive theatre for a playing audience' (Coney, 2016) this piece explores the possibilities for building the beginnings of a new country in the aftermath of an

[11] Video and photograph evidence of this work can be found in the *Gameplay* section of the *Prezi* file, under *72 Hour Interactions.*

epic war. Players are invited to make decisions as to what sort of society they would like to build in their new country and how they can attempt to avoid the mistakes made in the past. Although I did not yet play the latest version of this experience, I did partake in an early play-test at the Playpublik Festival in Berlin, 2012.

2.3.6 **Theatre and Performance**

Over the course of this research there were five selected live events or performances that I attended as an audience member. The pieces were, *In The Beginning Was the End* by dreamthinkspeak (2013), *Wilfred Bagshaw's Time Emporium* by Winterwell and The Tom Sawyer Effect (2013), *Peel Park Asylum* by Moonstruck Me (2014) *The Drowned Man: A Hollywood Fable* by Punchdrunk (2014) and *Back to The Future* by Secret Cinema (2014). Information, video trailers or photographs for each of these works can be found in the *Live Performance* section of the *Prezi* file. Each of these pieces has been relevant to my research due to the self-defined immersive, interactive or game-influenced qualities in their publicity material. The five pieces I attended allowed me to challenge notions of immersive theatre and examine how live work might engage a game playing audience. By seeing this work I hoped to discover which approaches would prove useful to my research objectives and then feed these observations into the practical processes I have been engaging in.

In The Beginning Was The End, dreamthinkspeak, Somerset House, London, 2013

Described by a colleague in The Larks as an 'immersive' experience, *In The Beginning Was The End* was one of the first pieces of theatre work I attended during my research. It is described as:

> A new large-scale, site-responsive theatre production, conceived and directed by Tristan Sharps, inspired by Leonardo Da Vinci, The Book of Revelation and the world of Mechatronics. In *The Beginning Was The End* takes audiences on a journey through the maze-like underground passages and unseen spaces of King's College and Somerset House into a world of calamitous accidents and divine revelations. Mixing Leonardo-inspired hydraulics and modern mechanical engineering with dreamthinkspeak's special blend of film, installation and live performance, it reveals a vision of the world either on the verge of collapse — or the brink of rebirth (dreamthinkspeak, 2014).

Peel Park Asylum, Moonstruck Me, Salford University, 2014

As described on Moonstruck Me's website (2014), in *Peel Park Asylum,* single audience members 'discover the strange inhabitants and mysterious goings-on behind the walls of Peel Park Asylum' and 'wander through corridors, discover secrets, and perhaps uncover what is happening behind closed doors.' It is described as 'an immersive experience that participants enter alone, taking part in an interactive journey, which lasts approximately 30mins'.

The Drowned Man: A Hollywood Fable, Punchdrunk, National Theatre, London, 2014

The Drowned Man: A Hollywood Fable was produced by The National Theatre and Punchdrunk. The description on Punchdrunk's website is as follows:

> *Have you ever seen nature inside out? When the sun stands at midday and it's as if the world was going up in flames?'*
>
> Step into the world of Temple Pictures where the Hollywood studio system meets a forgotten hinterland filled with dreamers who exist at the fringes of the movie industry. Here, celluloid fantasy clings to desperate realism and certainty dissolves into a hallucinatory world.
>
> Inspired by Buchner's fractured masterpiece Woyzeck, this theatrical journey follows its protagonists along the precipice between illusion and reality (Punchdrunk, 2014).

Wilfred Bagshaw's Time Emporium, Winterwell and The Tom Sawyer Effect, Shoreditch, London, 2013

Wilfred Bagshaw's Time Emporium was suggested to me by game designer and theatre maker William Drew (a collaborator with Winterwell and The Tom Sawyer Effect), who, I first met at *Playpublik* (Berlin 2012). The website offers the following description: 'The Time Emporium is an interactive, immersive time-travelling adventure that puts you at the heart of the action…'(Time Emporium, 2014).

Back to the Future, Secret Cinema, London, 2014

Back to the Future was Secret Cinema's largest project to date. Notoriously mysterious in the advertising and marketing of their work, the Secret Cinema organisation's website offers no description of what the work is. I went to this event in August 2014, where I experienced the story-world depicted in the film *Back to the Future* in a large-scale, immersive and interactive experience. Secret Cinema had built the whole of 'Hill Valley' (the fictional town in which the film is set, in 1955) and populated it with actors, set, props and activities for the audience to take part in. The film was then projected onto a life-size version of the town hall from the film with actors recreating moments from the film in and around the audience, as they happened on screen. The entire experience lasted for around five to six hours.

2.3.7 **Interviews**

Recordings of the interviews are found in the *Interviews* section of the *Prezi* file and the quotations from these practitioners, which are used in Chapter Three, are found in these recorded materials, unless otherwise stated. Informed by the reviews of practice and literature and my existing and developing networks and relationships, I identified a number of

companies, artists and designers who could influence the development of this new performance paradigm and proposed approaches. There are several commonalities across all the practitioners interviewed:

1. Their work is all exclusively live and takes place with real people in real spaces.
2. There is a focus on community and the potential power of play for democratic society.
3. Their work is interactive — as defined by Chris Crawford (2012).

We can consider this method visually and understand that all the participating interviewees were located somewhere in this triangle (see figure 2), with each situated closer to one of the three points. I have grouped these companies and individuals into the following three categories: Theatre Practitioners, Game Designers and Play Hacks, though there are cross-overs in certain instances (see figure 3).

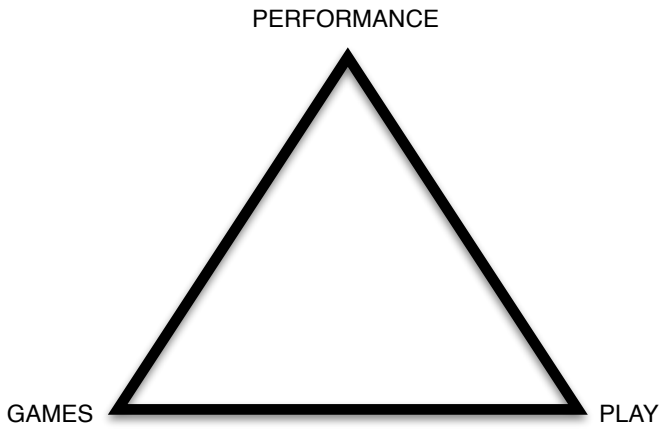

Figure 2: Practitioners who work between Performance, Games and Play

PERFORMANCE PRACTITIONERS *Defined as:* *Theatre makers interested in exploring games and playfulness in their work*	GAME DESIGNERS *Defined as:* *Practitioners who focus on game design. They often work with technology, create systems, rule based experiences, use social networking, experiment with new media, engage with computer/video games*	PLAY HACKS *Defined as:* *Practitioners who focus on play. They often work in public/unconventional spaces, rebellious through playfulness, radical, political, interested in social change, academic, often analogue*
Coney London	Copenhagen Games Collective Denmark	Focus Milan, Italy
Phillip Ehmann UK/Austria	Sebastian Quack (Invisible Playground) Berlin	
Pop Up Playground (Australia)		

Figure 3: Categorisation of interviewees

Below I will introduce the six interviewees and then synthesise the material from their interviews with the literature and practice reviews in Chapter Three.

Annette Mees, Coney, London

Annette Mees worked as a co-director of London based Coney until 2015. Before Coney, she worked with Dutch company, Submarine, where she collaborated on the Crisis project, which was an early form of reality television where players were presented with a series of fictional national catastrophes and invited to solve the impending crisis. During her career she has become increasingly interested in the question of 'what can you do' (Mees interview, 5:43)

with a live audience in theatre and performance and this was a question she continued to explore in her work with Coney.

Philipp Ehmann, Street Game Conspiracy, Vienna

Vienna-based Austrian practitioner, Philipp Ehmann, describes himself as a 'trans-disciplinary artist with a theatre background' (Ehmann interview, 2:32) who has become interested in developing 'pervasive, non-traditional and public gaming' (Ehmann interview, 2:51). Ehmann trained in theatre practice in the UK (Exeter University) and is now based in Vienna where he collaborates with two live gaming organisations: The Street Game Conspiracy and PlayVienna.

Pop Up Playground, Melbourne

Pop Up Playground is an Australian-based company comprising of professional theatre practitioners/academics, actors, comedians and craft artists, working in Melbourne. In this interview I talked with Robert Reid (who holds a Ph.D in Theatre practice and is a playwright and a lecturer), Ben McKenzie (an actor, stand-up comedian, gamer and someone who has an interest in science) and Seraphim Lothian (who has a background in primary education, television and also arts and crafts). When describing their company, they suggest that, 'they are many things to many people' (Pop Up Playground interview, 9:40) and explain how there are many definitions that could be pertinent to them as a group. However, Pop Up Playground often settles on the description that as a company they create 'live games and constructive play' (Pop Playground interview, 10:34), whilst also running play festivals and researching into play cultures.

Patrick Jarnfelt and Amani Naseem, Copenhagen Games Collective, Copenhagen

Copenhagen Games Collective is a diverse group of artists, computer programmers and game designers who are passionate about experimenting with the medium of gaming. Jarnfelt explains how their approach originates from the jamming culture (often seen in music culture) in that they began by meeting up, playing with the technology they have and improvising new ideas using their diverse set of skills.

Sebastian Quack, Invisible Playground, Berlin

Invisible Playground was a label first used for this collective when taking part in the *Come Out and Play* Festival in New York in 2006. They create live gaming experiences in a variety of spaces including cities, museums, art galleries and festivals. A core value for this collective is the multi-disciplinary nature of the group and Invisible Playground is populated with computer scientists, theatre practitioners, philosophers and cultural management/production experts.

Focus, Milan

Focus is composed of Augusto Pirovano and Matteo Uguzzoni. Pirovano comes from a background in arts and culture management whilst Uguzzoni has trained as an architect in the urban space. For the past seven years, Focus has been operating a not for profit organisation that creates urban games for social purposes. The company members have a passion for games and playfulness and are motivated by the notion that games in the urban environment can make a positive impact on society. The focus of their practice is to offer society the opportunity to 'live in the public space in a different way' (Focus interview, 4:31) .

Burke and Innes (2004) suggest that theatre practitioner interviewees might be best considered as 'elite respondents' in the sense that they 'can communicate information that is not available from any other source, from the vantage of his/her personal involvement in the source material' (Burke and Innes, 2004, p.5). This approach also proved useful when interviewing game designers and artists working within this field and the information garnered informed the practice. Burke and Innes's interview guidance served as a basis for the proposed interviews.

I developed two categories of questions to conduct these interviews with. The first are as follows and were asked to everyone interviewed:

1. Introduce yourself and tell us who you are, where you are from, what do you do and why do you do it?

2. Describe your audience. Who are they? Why do they come to your work? What are the challenges for sustaining and developing an audience?

3. Do you ever use computer game design models, content, themes or influences (digital culture) when realising games in a live setting? How?

4. What are the challenges and opportunities of making games in a live setting?

5. Can you talk about the nature of the passive/active participant in terms of any senses of agency they might experience in your work?

6. What technologies do you use in your work? How accessible do you find these tools?

The second category were supplementary questions asked only to those interviewees in the 'Theatre Practitioner' category. They were:

1. How is performance methodology impacted by translating game design mechanics into live performance?

2. What are the functional synergies and differences between games and performance?

Each interview lasted between thirty minutes and two hours (depending on availability) and was conducted via either video chat on Skype or Google Hangouts. The questions were sent to participants prior to the interview so as to allow them to consider their responses and express what they felt was most relevant. The interviews were recorded using a piece of software called *Call Recorder* and the raw footage currently resides (securely) on my iMac hard drive. Some of the interviews were done using Google Hangouts, at the interviewees' request. Each participant agreed to participate in the interview via email in accordance with Data Protection and University of Salford ethical guidelines.

Skype and *Call Record* was used in this project for many reasons. Firstly, this is an international community of practice, which makes in depth face-to-face (in the same room) interviews far too expensive and time-consuming. Secondly, much of the communication amongst this community of practice is conducted using social networking technologies meaning that *Skype* is a suitable tool for interviewing within a digital landscape where this community organises and markets their work. The more informal conversations held with individuals I met at conferences and festivals over the past four years have also informed my research in a general sense and I will allude to some of these conversations in later chapters. Conducting interviews in this way allows me to focus on the issues that are pertinent to my four research questions and develop the five approaches utilised in the practice element of this research.

2.3.8 **Theatre and Performance Making/Game Design**

As this is a practice as research project, making and designing work was an integral element within the methodology that allowed me to develop the approaches drawn from the literature review, practice review and interviews. The creation of four productions of live work, as described in Chapter Four, addresses the two research questions of this project. Documentation of the work can be found in the *My Practice* section of the *Prezi* file. In this chapter I will introduce these pieces.

Hacked Off, The Larks, 2011-12, Manchester

The first of two projects that were collaborations with The Larks is *Hacked Off!*, developed over 2011 and 2012. Taking place in public urban spaces and using simple mobile phone technology the game is a satirical work that examines the infamous hacking scandal that took place in the UK newspaper industry. In this game audience members are invited to undertake an interview for a fictional newspaper, 'The Daily Hack', where they take part in a role-play exercise to determine their suitability for a hacking job at the Daily Hack, working for a ruthless editor (played by myself). A maximum of seven audience members can play in the game with each given various props and simple costumes. The game lasts between twenty to thirty minutes each time and at the end audience members were invited to 'give testimony' to the 'Leveson Inquiry'[12] via a video interview. *Hacked Off!* has been performed and played at various events across the UK and in Berlin.

[12] The Leveson Inquiry is a judicial public inquiry (2011-2012) into the culture, practices and ethics of the British press following the News International phone hacking scandal. *https://end.wikipedia.org/wiki/Leveson_Inquiry.*

Know Your Place, The Larks, 2012-13, Manchester

The second project with The Larks, *Know Your Place*, is also satirical and focuses on issues around the British class system and social justice. In this game a maximum of twelve audience members are invited to move through three stages of life (education, work and retirement) on a fictional island whilst being subjected to a biased game system that places some players in unfairly advantageous and disadvantageous positions. Activities in the game include variations of a simple school sports day race, a bizarre version of badminton and a chase game through the streets. The game attempts to expose the arbitrary rules behind social status and capital in modern Britain. Once again this game is played out in a public and urban setting and lasts for approximately forty-five minutes. Developed over 2012 and 2013, *Know Your Place* has been performed and played across the UK, in Poland, Austria and The Netherlands.

Everything is Awesome, Playfuel, Gizzago, Copenhagen Games Collective, 2013-14, Manchester, Liverpool, Copenhagen

Everything is Awesome was a collaboration between Liverpool-based Gizzago, Playfuel and Copenhagen Games Collective. This game experiments with radio-frequency identification[13] technologies, computer programming, a brain wave scanner, a drone and theatre and performance practice. Played in the public space the game is set in a near future where creativity has been outlawed and drones and robots mercilessly police the streets for signs of creative flair. A rebel leader (played by myself) unites a small band of would be creative terrorists (six audience members) and leads them through a series of expressive tasks in an attempt to overload the system and bring the drones down. This game has been developed in

[13] Radio-frequency identification (RFID) is the wireless use of electromagnetic fields to transfer data, for the purposes of automatically identifying and tracking tags attached to objects. https://en.m.wikipedia.org/wiki/Radio-frequency_identification

both the UK and Denmark between 2013 and 2014 and has been played in Krakow, Manchester and Copenhagen.

Save Mamma Grottole, Playfuel, Casa Netural, 2015, Grottole, Matera

The final project is *Saving Mamma Grottole* (2015), which is a collaboration between Playfuel and Southern Italian cultural co-working space Casa Netural as well as local participants in the small village of Grottole. This game sees small teams of four to five audience members explore the old part of the village and encounter characters (played by actors) from local history in an attempt to rediscover the memories and stories of the village and save the fictional character of 'Mamma Grottole' from madness and despair. This project saw me take a more focused game design role where I worked with the local participants to develop the narrative and game play.

2.3.9 **Play-testing**

This work is ongoing and reflective of the iterative process used in game design. 'Play-testing' has become a part of the process in live gaming and game-based performance and is an example of how practice in game design is being deployed by performance practitioners. Eric Zimmerman offers this explanation of the iterative design process and what 'play-testing' is:

> Iterative design is a play-based design process. Emphasising play-testing and prototyping, iterative design is a method in which design decisions are made based on the experience of playing a game while it is in development. In an iterative methodology, a rough version of the game is rapidly prototyped as early in the design process as possible. This prototype has none of the aesthetic trappings of the final game, but begins to define its fundamental rules and core mechanics. It is not a visual prototype, but an interactive one (Salen and Zimmerman, 2004, Chapter 2, para 3).

Play-testing has been a part of the process for all the practical work in this project. When working with The Larks and Playfuel we would often invite previous audience members to come to our workspace and play elements of the games we were creating. After such sessions we would organise group discussions with the audience members that could feedback into our process of developing the games. These play-tests could occur privately during our development period in Manchester or also at festivals across Europe, with other game designers, before public presentation. However, in a sense, all presentations of our games acted as a play-test, allowing us to make adjustments and reiterate the design during various public presentations. In terms of this research, play-testing was also a method for developing the five approaches described in Chapter Four since they are products of not only an iterative design process but also an iterative research process. Through each presentation and test of the work I was able to hone the elements that form the five proposed approaches to creating a Theatre for Gamers.

Chapter Three: Agency, Interactivity, Play

This chapter will expand on the three pillars of agency, interactivity and play that act as the 'clew' (see p.14) of this research process. These pillars will be analysed further here in relation to a critique and analysis of existing theory, existing practice and recorded interviews with practitioners working in this field. There are also three philosophical texts to consider in the presentation of these three themes in my research. The first is Rancière and his discussions of *The Emancipated Spectator* (2008), the second is Hegel's *The Phenomenology of Spirit* (1807) and finally Csikszentmihalyi and his introduction of the concept of flow in *Beyond Boredom and Anxiety: Experiencing Flow in Work and Play* (1975).

Rancière, as introduced in Chapter One, develops criticisms in *The Emancipated Spectator* that concern the passive nature of spectatorship in performance. He tells us,

> We therefore need a different theatre, a theatre without spectators: not a theatre played out in front of empty seats, but a theatre where the passive optical relationship implied by the very term is subjected to a different relationship — that implied by another word, one which refers to what is produced on the stage: drama (Rancière, 2009, p.3).

Rancière's main reason for demanding 'a different theatre' is best expressed when he explains the issue with the 'passive optical relationship' of spectatorship: 'to be a spectator is to be separated from the capacity to know and the power to act' (Rancière, 2009, p.2). This focus on 'action' and 'drama' resonates with Aristotle's *Poetics* where it is suggested that the most important element of drama (of the seven Aristotle outlined) is 'action'. However, when considering Rancière's concerns in relation to games, I argue that this 'action' no longer rests in the domain of the performers but instead of the audience members. This notion is relevant

to my research as I am suggesting that the design principles of games put their audiences in such a position that the only way to interact with the art is actually to be connected to the 'capacity to know and the power to act'. Rancière argues that, 'more than any other art, theatre has been associated with the romantic idea of an aesthetic revolution, changing not the mechanics of the state and laws, but the sensible forms of human experience' (Rancière, 2009, p.6). Practitioners such as Brecht and those involved with The Federal Theatre Project have sought to change 'the mechanics of state and laws' with some success. For example, *One-Third of a Nation* (1939) (a product of the The Federal Theatre Project) 'struck a chord among those lobbying for housing reform in Seattle' and aided the process of state legislation concerning housing issues (Witham, 2003, p.113). This production achieved this whilst still positioning the audience members as spectators at a performance. Despite such successes in the earlier part of the twentieth century, in the networked society of the internet age, passivity or 'passive optical relationships' are not the only way we expect to interact with content, information or each other. As Prensky has noted (see p.8), 'Digital Natives' prefer to be 'active' rather than 'passive' and we can see examples of this in the design and proliferation of digital technologies. For instance, we do not simply switch the internet on, as we would a television. Instead, we are required to interact with a range of technology to find and choose the content or people we wish to engage with. In this sense 'Digital Natives' have an expectation to be connected to the 'capacity to know and the power to act'. We can even relate the preference for connectivity over 'stand-alone' experiences to Rancière's arguments when he suggests that spectators should experience a 'blurring of the boundary between those who act and those who look: between individuals and members of a collective body' (Rancière, 2009, p.19). By further considering the paradigm shift that Rancière is arguing for, in relation to the expectations set out by Prensky's argument, this chapter will attempt to uncover how games might offer a basis for a performance experience that delivers knowledge and action

for the audience members.

Hegel's presentation of the relationship between bondsman and lord (often translated as master and slave) can be reinterpreted through the prism of both Rancière's arguments and Prensky's observations to further clarify the foundations of this emerging game-based practice. When considering Rancière's criticisms of the passive spectator, it is pertinent to consider the position of 'self' in relation to art, passivity and action. As Hegel tells us, 'self-consciousness exists in and for itself when, and by the fact that, it so exists for another; that is, it exists only in being acknowledged' (Hegel, trans. Miller, 1977, p.111). If this is the case, then where does the acknowledgement exist for spectators, 'separated from both the capacity to know and power to act'? Developing Hegel's concept of 'lordship and bondage' (in relation to Rancière's understanding of the relationship between performer and audience) suggests that the individual who only spectates the performer loses the acknowledgement of their own self. This is possible in the realism and naturalism of early twentieth century performance, where notions such as Stanislavski's fourth wall were applied with a view to encouraging the performers to imagine the audience is not present. As Stanislavski suggested, actors should, 'avoid looking at that non-existing fourth wall, or into the distance until' they 'have mastered the technique with which it can be done' (Stanislavski, 1936, p.79).

Wise (1997) sees Hegel's dialectic as one of 'identity and self-consciousness' and argues, 'The desire for self-consciousness is the desire for a 'non-biological I', for an abstract idea of who we are as individuals. This is achieved…by being recognised by another human, but especially by all humans.' (Wise, 1997, p.14). In computer and video games we can conceive the 'non-biological I' as the virtual avatar that represents the 'abstract idea of who we are' in an abstracted and virtual world. However, exclusive activity in the virtual world lacks the

possibility for direct physical acknowledgement and recognition by other humans in a live space. This chapter will further discuss these issues in terms of computer and video games and introduce the motivations for a range of practitioners to move the practice of games from screen-based virtuality to live action environments, such as the public and social space.

'Flow' (Csikszentmihalyi, 1975) is a concept often considered by game designers and academics (such as Jane McGonigal) who link flow to *fiero* or a sense of pride. McGonigal describes 'fiero' as, 'what we feel after we triumph over adversity' and tells us that, 'you know it when you feel it — and when you see it' (McGonigal, 2011, p.60). Flow is a foundation for understanding the awareness of self in gaming experiences and it is prevalent in much of the work discussed in this chapter. My research argues that performance should offer gamers something of an 'autotelic experience', described by Csikszentmihalyi (1975) as:

> Poised between boredom and worry, the autotelic experience is one of complete involvement of the actor with his activity. The activity presents constant challenges. There is no time to get bored or to worry about what may or may not happen. A person in such a situation can make full use of whatever skills are required and receives clear feedback to his actions; hence, he belongs to a rational cause-and-effect system in which what he does has realistic and predictable consequences (Csikszentmihalyi, 1975, pp.35-36).

Csikszentmihalyi goes on to describe this type of experience as a form of flow. However, 'autotelic' suggests an experience that has no purpose external to itself and this concurs with the criticism that games and play (which are forms of flow or the 'autotelic experience') have no further purpose or objective outside of their design structures, systems or rules. This chapter reveals how through a fusion of performance practice and game design, more meaningful and impactful experiences (both on individuals and wider society) can be

produced. This chapter discusses concepts of flow in audiences, an engagement with a desire for self-consciousness 'acknowledged' by other humans and the way in which audiences can be repositioned to positions of 'power and knowledge'. It also explores how this type of experience can meet the expectations of a twenty-first century, networked and interactive audience.

The practitioners and designers presented in this chapter argue that agency and interactivity are conceived as core components of play and games. An analysis of their work reveals how these functions are realised in game-based performance practice and act as a vehicle to move audience members to positions of power and knowledge. It also explores how concepts of agency and interactivity are an expectation within gaming and play culture. Furthermore, the cyclic nature of interactivity in games, which is used to develop cybernetic, productive and narrative feedback loops, can be understood in terms of flow and self-consciousness. The outcome of this analysis informs the five approaches demonstrated in my practice, described in Chapter Four: *Creating a Theatre for Gamers*.

3.1 **Agency: Ergodic Design**

3.1.1 **Ergodic Texts that Encourage Behaviours of Agency**

'Cybertext' and 'ergodic text' are both terms that are usually used to describe computer-mediated experiences such as games, interactive novels and websites. A cybertext sees the implicit complexity of engaging with a mechanised text as integral to the navigation and understanding of that text (Aarseth, 1997). 'Ergodic' texts require readers (and potentially audiences) to put in 'nontrivial' effort to gain meaning (Aarseth, 1997, p.1). I wish to expand

upon this explanation of ergodic as it can be misinterpreted to suggest that reading a novel, watching a television show or watching a traditional play at a theatre does not require a degree of effort, even from the passive role of the spectator or reader. This is not how my research seeks to express ergodic. Instead the focus here is on the actual process a reader (or player or audience member) must undertake to place themselves within a position to gain meaning of any sort. Turning a page in a book, switching on a television or sitting and observing performers could be considered as 'trivial' efforts that require little to no practice or learning. It is the case that interpreting the content after that activity can require a lot of effort but the process towards reaching that place where meaning can be garnered can be described as 'trivial'. For ergodic texts this process requires more than trivial effort. A clear example of this can be seen in the way computer and video games require you to learn a series of controls and new skills in order to navigate the text and content on offer. Furthermore, game designers tend to use the term 'ergodic' to differentiate their own configurative medium from more interpretive media like film, television, novels and theatre (Eskelinen, 2001, cited in Klevjer, 2002).

During the tutorials stages of *Grand Theft Auto V* and *The Elder Scrolls V: Skyrim* players learn how to manipulate complex physical controls to move their character through the world, drive vehicles, ride animals, pick up and use weapons and interact with other characters in the game. Both of these games also involve learning how to navigate the on-screen menu systems, which allow players to customise their character's set-up in terms of equipment and appearance or make adjustments to how they control their virtual avatars (in terms of joypad sensitivity, button configuration or difficulty levels). These are examples of ergodic texts as players cannot navigate these games without first learning to use the controls and this process requires a 'non-trivial' amount of effort. Once these control systems have been learned,

players are free to make decisions and perform a variety of actions when and how they choose. For instance, players in *Grand Theft Auto V* can choose to steal a car and drive it wherever they like across Los Santos and they are free to ignore the main narrative arcs. Similarly, players in *The Elder Scrolls V: Skyrim* can choose to run through the landscape exploring the territory or just spend their time exploring one town. These are just a few examples of the many choices available to players in such games and they demonstrate how control systems, in ergodic texts, can develop agency for players. In these experiences players are free to engage with the narrative or to ignore the narrative and explore the possibilities available to them via the control systems. I argue that Rancière's notion of the emancipated spectator is reflected in this aspect of gaming in that through the use of control mechanisms, which facilitate the abandonment of the role of passive viewer (see p.10), players are repositioned to positions of knowledge and power, albeit in a virtual world.

Some computer and video games offer simpler control mechanisms that do not offer the same amount of freedom or choice to a player but can still generate agency. In *The Walking Dead: Series 1* (Telltale Games, 2013) the gameplay is centred around a set of timed choices and decisions that players have to make for the main character, Lee. These decisions often include what Lee will say to other characters, which actions he will take and how he will behave in this world. Such real-time decisions can affect the fate of the main characters in the narrative and it is this immediacy in narrative decision-making that separates it from the skill-based decision making required in using a controller to react quickly to on-screen action (as seen in *Grand Theft Auto V* and *The Elder Scrolls V: Skyrim*). For example, one moment in the game sees players having to choose between saving the life of two different sons of two different characters. An on-screen graphic depicts a time-bar that rapidly decreases while you decide which of the two buttons (each representing one of the sons you can save) you will press.

Although this is a further example of a system that can generate agency, it can also be criticised for being too binary. For instance, at this moment in the game, a player cannot choose to try and save both of the sons or even let both of them die, as failing to make a decision in time results in the computer randomly deciding for you. In *Grand Theft Auto V* and *The Elder Scrolls V: Skyrim* there is the opportunity to perform actions via the control system in a manner unrelated to the narrative arc. Instead, the agency in *The Walking Dead: Series 1* is realised through a series of binary choices that push the main narrative arc forward.

We can, therefore, understand agency in narrative-based computer games (where control is mediated through physical controllers) in two ways. Firstly, there is the complex skill-based control system that allows players to make a multitude of decisions, which we often find in sand-box games. Secondly, there are the less complex narrative based control systems that are more binary and focused on developing a pre-determined narrative.

However, there are criticisms to be made concerning the status of agency in a virtual world. Lothian (Pop Up Playground) argues that in terms of agency for players, computers are limited, due to their programmed environments. Lothian suggests that in these games most of your decisions are predetermined and programmed despite the impressive illusionary nature of agency created in many computer and video games (Pop Up Playground interview, 1:15:53). This view highlights the limitations of computer systems for generating agency but does not necessarily exclude the use of systemised mechanisms as an approach to this aim. McKenzie (Pop Up Playground) argues that systems and mechanics can develop agency in game worlds both digitally and physically. He says, ‘systems in games affect players (in terms of their affordances and behaviours) but they don’t stop you from making decisions. Instead, those systems, help you to make decisions that you wouldn’t usually make’ (Pop Up Playground interview, 1:21:15).

For McKenzie, the ‘flip-side of agency’ is the scope of affordances allowed to the player. He goes on to suggest that a combination of affordances and constraints are both necessary in creating agency in game worlds, in the sense that the right balance can push us to our boundaries and obscure decisions. An example of the application of balanced affordances and constraints can be seen in their game *The Ride* (Pop Up Playground, 2013). In this game players are invited to take part in physical medieval-style battles in which players fight each other with cardboard or plastic swords. However, the constraint in the game (not wanting players to hurt each other) is that a games-master arbitrator predetermines who will win a particular battle before it starts and the affordance offered to the players focuses on how exciting they can make that particular fight look — without actually hurting each other. The pre-determined battle is played out in slow-motion and the focus for the players is on how dramatic, cinematic and impressive they can make the battle.

Lothian further expresses the need for a balance between affordances and constraints by telling us, ‘Boundaries are important. Too much choice…and the players can freeze and not know what to do’ (Pop Up Playground interview, 1:26:45) In another project, *The League of Extraordinary Nations* (Pop Up Playground, 2013), a game in which players are invited to take on the roles of world leaders and attempt to deal with a psychopathic, evil, world conquering villain, she explains how players did not automatically understand the scope of what they could do or achieve in this epic-scale game world. She explains that the boundaries and constraints were not rigid enough and it took more experienced players to model the behaviour and set the scope of what could be possible for newer players.

A further example of this concerns an early play-test I took part in of *Early Days (of a Better Nation)* (Coney, 2012) at the *Playpublik* festival in Berlin (2012). In this game I was invited to enter a narrative where, through collaboration with other players, we had to redesign

society after an epic war. The systems of control in this experience were more akin to the complex systems seen in games like *Grand Theft Auto V* and *The Elder Scrolls V: Skyrim*. Though this experience did not involve players learning a set of complex skill-based physical actions or how to navigate complex menu systems, we did have to learn a complex set of affordances that would allow us to complete our objective. For example, all of the players were separated into smaller factions with each given a certain amount of game currency to spend on our new societies. We were all instructed to elect leaders for our factions and there were a multitude of possibilities available to us relating to the things we could spend our money on (including factories, hospitals or schools) or the different ways we could negotiate with other factions. A lack of constraints, in terms of how we should behave or what we could do, resulted in some players (such as myself) attempting to reinterpret the systems that had been presented to us. For example, to experiment with the mechanics of the game, I attempted to try and steal one of the factories (represented as cardboard structures) built by another faction but the facilitators quickly stepped in and restricted this action. Once again we are presented with the issue of players fully understanding the scope of a live game. In this play-test, the constraints were not clearly communicated to players and so some people felt confused about what they could (or were expected) to do and some people (myself included) attempted to push the affordances available to us to their limits.

We can highlight a difference between live gaming and computer gaming in that, a computer game can offer you a finite series of buttons to press and actions to perform, whereas, in live gaming the possibilities are dependent on the player's psychological, social and physical attributes. The challenge, therefore, for games like *The League of Extraordinary Nations* and *Early Days (of a Better Nation)* is on communicating the scope of what is available and possible for the players.

Weeping Angels (Street Game Conspiracy, 2012) is an example of a physical game that demonstrates the application of rigid boundaries and constraints that successfully communicate the scope of the game to the players. Both teams ('The Doctors' and 'The Angels') have a physically manifested control system that expresses clear affordances and constraints. For instance, 'The Doctors' are each given a battery-powered torch that allows them to stop 'The Angels' movement by shining the light on them (the game is played in a dark environment) as well as search the game area for the hidden treasure. In turn, 'The Angels' are able to catch 'The Doctors' by getting close enough to them to make physical contact. These affordances and constraints communicate a clear scope of what is possible for players to do within the game whilst still allowing players to generate methods and tactics for success. For instance, when I played this game (at *Playpublik*, Berlin, 2012, *Let's Play Poznan,* Poland, 2014 and *The Playful Arts Festival*, Netherlands, 2014) I noticed how players in both teams developed tactics within the constraints of the game. 'The Doctors' often decided to work in pairs so that at least one of them could keep a light on an angel at all times whilst the others hunted for the hidden treasure and 'The Angels' moved in groups to maximise their chances of successfully capturing their opponents. Though a balanced set of affordances and constraints can communicate the scope of agency available to players in live games, there is a difference to consider when compared with digital screen-based gaming. The designer of *Weeping Angels*, Philipp Ehmann, describes this difference as the unpredictable nature of playing in a live setting, particularly in the public space (Ehmann interview, 17:16). The first time I played *Weeping Angels* (*Playpublik,* Berlin, 2012), we played the game in a public park in the centre of a group of apartment blocks during the late evening. There were moments when members of the public (or the people who lived there) often walked through our gaming area as we played. These unpredictable events encourage Ehmann to ask, how do the players react and how do you balance the structure of a game to account for this

unpredictability (Ehmann interview, 19:34)? He argues that it is crucial to consider what the boundaries of a game in a live setting are as well as having a clear understanding of what limitations and opportunities the core game mechanics afford. For example, in the Berlin presentation of *Weeping Angels*, players were given a restricted playing area and they were not permitted to go into the buildings or leave the park area. As the facilitator of the game, Ehmann explained that the place of the hidden treasure was within the park area and so the game objective dictated to the players the scope of their physical boundary. Furthermore, since the game relies on darkness as a restriction to finding the treasure or hunting 'The Doctors', moving out of the darkened area of the park (that had no public lighting) conflicted with the mechanisms of the game. Again, we see a difference here between computer and video gaming and live gaming. When playing *Grand Theft Auto V or The Elder Scrolls V: Skyrim*, eventually, players will reach the edge of the virtual world and the game does not allow players to move beyond that point. However in live gaming, designers must consider how to communicate those boundaries to players in different ways. One method for this, as *Weeping Angels* demonstrates, is to link the boundaries of the game world to the objectives and mechanics of the game.

There are also examples of how computer and video games achieve a relationship between action and space, albeit virtual space. One computer game that performance practitioner Annette Mees (formerly a co-director with Coney) had been exploring at the time of her interview was *Bioshock*[14] from 2K Games (2007). She describes this computer game as an example of the way video games can offer 'logical actions in a narrative' in the sense that all the affordances offered to the players in this virtual world have a clear purpose that relates to

[14] *BioShock* is set in 1960, in which the player guides the protagonist, Jack, after his airplane crashes in the ocean near the bathysphere terminus that leads to the underwater city of Rapture. Built by the business magnate Andrew Ryan, the city was intended to be an isolated utopia, but the discovery of ADAM, a plasmid which grants superhuman powers, initiated the city's turbulent decline. http://en.wikipedia.org/wiki/BioShock

and exposes the narrative to the player (Mees interview, 22:25). Mees expresses her interest in the way such games have designed player action and narrative so that they are 'not distracting each other'. We can see examples of this in *Dishonoured* (Arkane Studios, 2012). When controlling the character of Corvo, players are afforded a range of skills that allow them to pursue their quest of saving the little girl, Emily. For instance, the game world is designed to include a variety of hiding places that let players utilise the stealth mechanic of sneaking up on enemies without being first seen and attacked. This player action complements the narrative since Corvo is a fugitive who must evade capture to complete his quest.

So far I have established how computer and video games can generate agency through developing a relationship between action and narrative and then mediating this relationship via control systems. These ergodic practices can be expressed as a complex variety in choice of action or behaviour or as a more binary approach that focuses on pushing the narrative forward in a way that reflects players' decisions. Transposing this systemic approach to control and choice in live games, as seen in *The Ride*, *The League of Extraordinary Nations* and *Weeping Angels*, has revealed (according to the interviewed practitioners) that a carefully designed balance of affordances and constraints is required to successfully engage players. Also, designers should understand the limitations of the physical space of their game.

Now I will consider how these ergodic notions (of learned control and decision-making in relation to narrative) have been realised in selected live and contemporary performance. Reid (Pop Up Playground) heavily criticises some performance practice for a 'lack of agency' and expresses his frustration when this medium 'tells people that they have agency' when, in his view, they do not. He tells us, 'Theatre is receptive, all you can do with theatre is sit and do nothing or break it' (Pop Up Playground interview, 1:14:25). *In The Beginning Was The End* (dreamthinkspeak, 2013) is an illustration of Reid's criticism despite the fact that the audience

members do not sit down during its presentation. Instead, the audience members are invited to move through the various spaces in this performance as if they are official visitors to some type of multinational media and technology company's laboratory or headquarters. In this performance, movement is an ergodic expression and there is a relationship between this physical exploration and the narrative presented (we are visitors exploring a company's headquarters). However, this action is not complex enough that it requires an acquisition of skills nor has it a direct impact on the narrative of the experience. The same is true for *The Drowned Man* (Punchdrunk, 2013) where we see audience members invited to move through a series of spaces but this time as visitors to a 1940s American film studio. Unlike the games discussed so far, these performances do not use systemic design to offer affordances to their audiences. *The Drowned Man* seems more concerned with constraints. For instance, audience members are instructed to wear white masks and are asked to not talk with each other throughout the experience. Also, the actors regularly force audience members to clear certain spaces so that they can perform scenes of dialogue or movement. Considered through the lens of Rancière's writing, the audience members in these performances are not part of a collective body (that includes the performers) and they are not placed in positions of power or knowledge. Overall, the boundaries between performer and spectator are not blurred in these experiences, despite moments of interaction and an inconsistent freedom of movement.

A solution to more fully realising ergodic practice in performance might be found in a different piece of work from Coney. Mees tells us that Coney is interested in creating live experiences where the audience have agency and we can find examples of complimentary player action and narrative in the piece, *A Small Town Anywhere* (Coney, 2009). This performance removes the physical presence of the performer and invites the audience members to each take on roles in a small town community. The work has been described as

having:

> ...systemic engagements designed to give shape to lived experience. They allow for and respond to player agency within constructed narrative environments. They give participants the chance to practise 'ways of being' in 'not for real spaces' (Reid, 2013, para. 12).

In this work we can see the application of a series of game mechanics that are fairly complex and link action to narrative.[15] Each audience member is given a role within a fictional small town community (for example, the actress, the bishop or the carpenter) and each receives a letter containing three pieces of information: your secret lover within the town, your childhood rival and a controversial secret about someone else. The gameplay involves audience members writing letters to each other and gossiping within the town in an attempt to expose their rival's secret lover and controversial secret. Once all of a character's secrets are exposed they are banished from the town. One audience member takes on the role of the 'Town Crier' who will read out such information when it is discovered and delivered to them and then banish other characters. These actions are ergodic in that the audience members have to learn how to navigate the mechanics and then perform actions that link to a developing narrative. The constraints of having three pieces of information, writing letters as a way to expose your rival and having a player who is responsible for banishment are rigid enough to maintain the experience. The affordances of gossiping with other characters, sharing information and creating the letters enables players to develop the narrative.

A further example of ergodic performance is *Wilfred Bagshaw's Time Emporium* (Winterwell and The Tom Sawyer Effect, 2013). In this piece the audience members are cast in the roles of time travelling detectives who are attempting to sabotage the murder of a historical figure in

[15] Coney created a social game called *The Gossip Game* upon which *A Small Town Anywhere* is based. Instructions for this game can be found at http://ludocity.org/wiki/The_Gossip_Game

medieval England. As with *A Small Town Anywhere*, audience members in this work are presented with a clear objective and a balanced set of affordances and constraints. They are instructed to infiltrate one of many factions (for example the clergy, the army or royalty — all performed by actors) who they believe will commit the murder and they can do this by approaching these groups, talking with them and completing missions for them. Missions include delivering objects (such as potions or letters) to other parts of the fictional town or learning secrets about other factions. The game mechanics instruct audience members to buy entry to a faction of their choosing (thereby gaining that faction's trust and possibly learning of the murder plot) by earning enough coins, which they can receive through the completion of missions. Such actions are ergodic as they are systematically designed and require the audience members to learn these processes during their experience. These actions also lead to a blurring of the boundaries between performers and audience members, since the audience members have the opportunity to join a faction and not just spectate one.

I argue that an ergodic approach to performance, when expressed through game design, can develop agency for audience members. By designing a balanced set of constraints and affordances and linking those actions to narrative, audience members can move from spectatorship to more central positions within the experience. In many ways the position of the detective, as afforded to audience members in *A Small Town Anywhere* and *Wilfred Bagshaw's Time Emporium*, represents 'the role of the scientist' (see p.10) that Rancière is arguing for. In an ergodic approach to performance, 'phenomena' are presented to audience members through game objectives and the ability to 'seek their cause' (see p.10) is facilitated through game mechanics that link action and narrative.

3.1.2 **A Representational Universe Providing a Context for Narrative and Agency**

Rules of Play by Katie Salen and Eric Zimmerman (2003) is another relevant theoretical text underpinning my research. This comprehensive study provides several in-depth insights into the emerging techniques and concepts that are proving effective in game design. One such insight concerns the notion of representation within game worlds and this allows us to consider how ergodic practice can be designed in live performance. Salen and Zimmerman tell us that, 'to play a game is to rely on and interact with representations the game generates' (Salen and Zimmerman, 2004, Chapter 25, para. 2) and that games can either represent or are actually representational themselves. They also describe game worlds as 'representational universes' (Salen and Zimmerman, 2004, Chapter 25, para. 1). Furthermore, they suggest that in order to create meaning, games require 'a formal system to generate relationships between signs, as well as a context for interpretation' (Salen and Zimmerman, 2004, Chapter 25, para 4). Such 'formal systems' can be understood as ergodic since they require effort to learn and are then applied to create meaning. It is this quality that differentiates the design of a 'context for interpretation' in ergodic practice from non-ergodic practice. In ergodic practice the audience is integrated into the 'context for interpretation' and is required to engage with a 'formal system to generate relationships between signs', whilst in non-ergodic practice the audience is positioned as a spectator, who is directed towards interpreting an array of relevant signifiers. I argue that using an ergodic approach to performance is a continuation of the post-dramatic notions of Lehmann in which he suggests that a 'low density of signs aims to provoke the spectator's own imagination to become active on the basis of little raw material to work with' (Lehmann, 2006, p.90). However, the

continuation of this post-dramatic view moves beyond the imagination of a spectator since the Ergodic Approach allows audience members to abandon the role of spectator. This repositioning can affect the way audience members experience and relate to the work. As players internal to the event we are able to describe our experiences using the first and second person, whereas, as spectators external to the event, our experiences are described in the third person.

Positioning audience members in the centre of an experience (with the intention of giving them a first person perspective) can be used as a method to generate agency for an audience member. In *Peel Park Asylum* (Moonstruck Me, 2014) an audience member experiences a solo first-person perspective of being a patient admitted into a strange and unnerving psychiatric hospital. A combination of the use of an appropriate building, set, costumes and performers is successful in creating the atmosphere of an exaggerated and surreal asylum. These aspects create a 'context for interpretation' as the audience members can recognise signifiers that communicate information about time, place and atmosphere and this creates a 'representational universe'. Despite this, I argue that this piece does not create a sense of agency for those audience members from a game design point of view. In this performance, audience members are not invited to 'rely on and interact' with the representations generated by the practitioners and performers and there is no 'formal system' for interpretation to learn and apply. Instead, audience members spectate these representations from a passive position and the lack of ergodic design creates a distance between audience action and narrative. The experience is akin to the moments in *The Drowned Man* where audience members spectate pre-scripted scenes on the set whilst at a distance to the performers. Such experiences do not have a 'formal system' that needs effort to learn and directly links player action and narrative.

As discussed previously, ‘formal systems’ of control can be realised through digital technologies (as seen in computer and video games) or through analogue means (as seen in the work of Pop Up Playground, Street Game Conspiracy, Winterwell and Coney). More recently however, game designers have demonstrated that the use of a technological approach or an analogue approach is not necessarily a binary choice. At the conference *This is Playful* (London, 2012), games designer Mark Sorrell (Hide & Seek) called for more ‘computer’ games and fewer ‘video’ games. In his presentation he highlighted how some new games, though still using computer technology, were intent on bringing the action away from the screen and into the physical world. Such computer mediated games and experiences are found in the work of the Copenhagen Games Collective, where, Patrick Jarnfelt (a computer programmer), frequently hacks a range of hardware to create the game mechanics for their work. An example of this is *Idiots Attack the Top Noodle* (Copenhagen Games Collective, 2012), which is a simple physical chase game at its core that can be played virtually anywhere. Player actions in the physical space are mediated via a combination of *Playstation Move* controllers and EEG brainwave readers. These sensor-based technologies dictate the rules and system of the game and require players to learn their affordances and constraints. In this game there is a group of ‘idiots’ who each has a *Playstation Move* controller (capable of detecting physical movement and communicating a player’s status through coloured light signals) and one ‘brain’ who is equipped with both a *Playstation Move* controller and an EEG Brainwave Scanning device. The objective of the game is for the ‘idiots’ to capture ‘the brain’ by making physical contact with that player, or, for ‘the brain’ to eliminate all of the ‘idiots’. This technology creates the ‘representational universe’ and it directly links player action to narrative. For instance, if ‘idiots’ move too quickly within the game then the motion sensing technology in their *Playstation Move* controller will detect this and their blue light will turn to red to signify that they are eliminated from the game. Furthermore, the constraint that this

technology places on the players directly links to the narrative of their characters in the game. As Jarnfelt explains when introducing the game, because this group of players are 'idiots', they can only move slowly (refer to the trailer video in *Gameplay* section of Prezi). 'The Brain' however is intelligent and therefore their *Playstation Move* controller does not detect the speed of their movement and they are free to move as quickly as they like to avoid the 'idiots'. Instead, 'the brain' can attempt to generate beta waves (produced by our brains when concentrating) that are detected by the EEG device and instruct the light in their *Playstation Move* controller to gradually increase in brightness until it eventually turns white. At this point, 'the brain' can pull the trigger button on their controller and randomly eliminate one of the 'idiots' in the game.

Representational universes in games are realised, therefore, through formal systems that enable players to generate relationships between components and actions. Designed as a set of affordances and constraints they blur the space between narrative and action. Systems can be developed for screen-based digital experiences, physical analogue experiences or digitally mediated physical experiences. Compared to non-ergodic practices, representational universes in ergodic design integrate players into the context for interpretation and do not position their audiences solely as spectators. Due to this integration there is a range of possibilities available in ergodic experiences. One such example is the development of an emergent system. Jarnfelt describes these as:

> When you have some very simple rules which when put together create a very complex system…but what emergent systems in games will give you is that you have these simple things going on but your mind has the great ability to create something, a big narrative or experience, that is so much more than those simple rules (Copenhagen Games Collective interview, 49:06).

Creating emergent systems in physical spaces can present a series of challenges — especially in the public space. Amani Naseem (Copenhagen Games Collective) tells us that without the computerised ability for coded outcomes, there is a challenge in controlling every detail in the physical space as 'things just happen' (Copenhagen Games Collective interview, 49:41). This reflects the challenge of unpredictability voiced by Ehmann (see p.54) but it also introduces a further difference, concerning narrative, between ergodic and non-ergodic practices in live performance. Through formal systems and rules, which aid in the interpretation of representational universes, ergodic practice develops the possibility for narrative that emerges from audience members' decisions and actions, whereas in non-ergodic practice, narrative is entirely embedded within the context for interpretation. Such embedded narrative in traditional theatre and performance is positioned in 'the place in which memory is staged and things are represented' (Ridout, 2006, p.157), yet in games, I argue, that memories are created and formal systems generate representations. Marc LeBlanc (Games Developer Conference, 2000) argues that in game experiences, narrative can 'emerge from game events' and we can see examples of this in *Idiots Attack The Top Noodle*, *Weeping Angels* and *Early Days (of a Better Nation)*. The winners and losers in each of these games (and the manner in which these positions are established) emerge from events within the game. For instance, sometimes 'the idiots' in *Idiots Attack the Top Noodle* will win because they work together as a team or perhaps 'the brain' will win because they have excellent powers of concentration. Similarly, 'The Doctors' in *Weeping Angels* may successfully work together as a team and discover the treasure before a disorganised team of 'Angels' can capture them. Some factions in *Early Days (of a better nation)* may work better as teams than others and be more successful in their objective to redesign society. Thus the narrative of the experience is driven by the actions of the players and these player actions interpret and challenge representational universes via

formal systems of control. In this sense, ergodic practice does not stage memories but rather generates memories through emergent behaviours emanating from formal systems of control.

While LeBlanc argues that games can develop emergent narrative, he also argues that they frequently include embedded narrative (Games Developer Conference, 2000). However, the use of embedded narrative (in ergodic practices) presents a challenge to concepts of agency. For instance, in many third-person perspective video games, automated cut-scenes can temporarily take control away from the player. Jarnfelt suggests that such events, which are often presented as linear pieces of narrative, can often 'ruin the illusion' of agency that has been developed via the formal systems of control (Copenhagen Games Collective interview, 1:10:19)[16]. Due to such paradoxes, he tells us that some computer and video game designers are wary of engaging with story and narrative and instead focus their attentions on the ludic aspects of the projects they create. Such concerns are also voiced by Mees when she argues that cut-scenes can 'stop the action' for players (Mees interview, 23:06). When considering all of the computer and video games I have played in my research, the challenge presented concerns how embedded narrative can be used to push a narrative arc forward without jeopardising the possibility for emergent narrative. For example, *The Walking Dead: Series 1* might give me agency in terms of decision making but these actions only result in one of a finite number of possibilities of embedded narrative. Emergent narrative in computer and video games like this, therefore, is less achievable.

In live performance we can consider this dilemma in several ways. Firstly, there are the performances that are entirely presented through embedded narrative such as *In The Beginning Was The End*, *The Drowned Man* and *Peel Park Asylum*. The narrative presented in

[16] Third-person is a perspective in which the player can visibly see the body of the controlled character. This is seen in most third-person shooters and adventure games. It most commonly refers to a viewpoint behind the player character. http://www.giantbomb.com/third-person-perspective/3015-464/

these pieces are a continual series of cut-scenes as they offer no formal systems of control that allow audience members to generate meaning between their own actions and the narrative presented. In *Wilfred Bagshaw's Time Emporium*, there are a number of cut-scenes that interrupt the agency of the audience members, temporarily removing the affordances offered to them, whilst the performers present scenes of dialogue and narrative. However, Coney has tried to use cut-scenes in more subtle ways. For example, in their work, *A Small Town Anywhere*, performers' voices, which are mediated through speaker systems, offer simple, expositional cut-scenes that control the development of the emerging narrative (Mees interview, 23:30). These voices instruct the audience members as to when it is night-time or morning and this has a direct impact on moving the players forward in terms of writing letters and achieving their goals. This small-scale approach to cut-scenes offers the practical effect of moving narrative forward and conveying information to their players whilst not risking their agency in the experience of the game world. A further method is offered by Jarnfelt when he explains how in his games, he often makes use of an introduction that explains the systems of control, introduces the representational universe and helps to initiate an emergent system (Copenhagen Games Collective interview, 1:11:20). *Idiots Attack the Top Noodle* is an example of this as Jarnfelt presents the technology and narrative to the players at the start of the game and then removes his presence once the game has started. As with *A Small Town Anywhere*, moments where cut-scenes communicate key information to the players can develop the possibility for emergent narrative — without jeopardising overall agency.

When considering live performance, this debate between agency and cut-scenes in games (both digital and physical) can be explored through the lens of the long-standing debate between the live and the mediated, as described by academics such as Auslander and Phelan. The debate in games is that of pre-recorded game designer action versus emergent player

action, yet, as with Auslander's notion that liveness exists only because of the existence of the mediated (1999), we can also apply such semiotic reasoning to the functions of embedded narrative and emergent narratives in games. In the same way as liveness is acknowledged by the existence of the mediated, in games emergent action exists in response to embedded narrative.

Thus far, this chapter has considered agency in gaming as an expression of ergodic design, which develops control systems that form relationships between players and representational contexts for interpretation. Such configurative design approaches can produce emergent narrative for players in games and position them centrally within the experience. In the next section, I wish to explore a further aspect of agency in gaming (immersion) and examine the possible impacts of this when applied to live performance.

3.1.3 **Immersion and Praxis in Performance and Gaming**

Immersion is a prevalent concept in both gaming and contemporary performance, yet there are, once again, differences to understand in terms of ergodic and non-ergodic practice. A method for unpacking such differences is offered by Gareth White (2012) when he challenges the notion of immersion in performance by suggesting that this term 'maintains a subject-object divide'. He further describes this divide as 'a subject inside the object, not interpenetrated by it' (White, 2012). The description of the work that took place at the *InOnTheAct* festival (produced by The Lowry Theatre, Salford, 2012), by Richard Talbot, describes a more specific notion of what White means by this concept of 'a subject inside an object'. Talbot describes work where, 'Participants may enter an active engagement with the process of performance making, into a more collaborative relation with trained performers' (Talbot, 2014). This can be interpreted as participants being the 'subject' and the

‘process of performance making’ being the ‘object’, as both parts begin separate and are integrated at some stage. In gaming it may be the case that the term ‘participant’ is not appropriate when considering players because the nature of the ‘subject-object divide’ is different. Quack (Invisible Playground) argues that there is a clear distinction to be made between participation and gameplay (Quack interview, 49:57). In Invisible Playground’s work, participation has involved people from outside a project aiding in the creation of assets, narratives, materials, and other components that will be then used in a game play experience. Quack argues that often participation involves an open design process that can be fuelled by a political agenda of inclusion or social change but tells us that gameplay involves people ‘going into a structure’ and using that structure to generate an experience for themselves. Quack’s interpretation of participation reflects those examined by Bishop (2006) but his distinction of gamers in the public space develops this argument to suggest that games have the potential to offer an artistic practice that no longer revolves ‘around the construction of objects to be consumed by a passive bystander’ but instead offers an ‘art of action, interfacing with reality’ (Bishop, 2011, p.1). Therefore, when reconsidering White, we can understand games as experiences where ‘subjects’ are ‘interpenetrated’ by ‘objects’. As an example of this point, Quack describes his project *The Utopia Project* (Dortmund, 2014) where participants helped create the materials and assets for this experience but then players (a separate group) entered and used the structure designed by the game designers.

There are also differences in the interpretation of immersion in these two fields. The immersive qualities of *The Drowned Man*, *Peel Park Asylum* and *In The Beginning Was the End* ‘maintain a subject-object divide’ and are concerned with the positioning of the audience members in relation to the performance, whereas, games such as *Grand Theft Auto V*, *Weeping Angels* or *Idiots Attack the Top Noodle*, draw a link between player action and

narrative and depict an experience where a subject (player) is interpenetrated by an object (game). To develop this point we can consider three definitions of immersion in performance that have been offered by Josephine Machon (2013). The first definition describes immersion 'as absorption' that 'engages the participant fully in terms of concentration, imagination, action and interest' (Machon, 2013, p.62). An example of this can be seen in *The Drowned Man* and its use of white masks, with narrowed eye slits, which concentrate the audience members' viewpoints on the performance and scenography. However, as previously discussed, this immersive technique does not link action and narrative despite concentrating the audience members' viewpoints on the performance. The second definition describes immersion as 'transportation' where audience members gain a sense that they have been transported to a different place or time. This can be achieved through detailed set design or an appropriate use of site. For instance, *In The Beginning Was the End* was performed at a university science faculty where the presence of scientific laboratories helped create an appropriate sense of space. *The Drowned Man* created a huge and detailed set that included all the relevant details of a 1940s American film studio. However, unlike the ergodic virtual worlds of *Grand Theft Auto V* or *The Elder Scrolls V: Skyrim*, the distance between audience member action and narrative in these performances maintains the subject-object divide. The final definition adds that immersion can offer the ability 'to fashion your own narrative and journey' (Machon, 2013, p.63) as seen in *Early Days of A Better Nation, A Small Town Anywhere* and *Wilfred Bagshaw's Time Emporium* and also a variety of sand-box computer and video games.

This final definition from Machon is the closest (of the three she describes) to understandings of immersion offered by game designers, as it is the ergodic quality of games that results in immersion not only being concerned with the positioning of the players (in relation to the

narrative and narrators) but also with how a player's action (from within a structure) draws them deeper into the experience. A concept that illustrates this point comes from Salen and Zimmerman when they describe the 'immersive fallacy'. They argue that a temptation for contemporary computer and video game designers (especially with the advanced graphics and sound technology that is now available to them) is to rely on ideas of realistic and aesthetic detail to create an immersive experience for players. I would also make this criticism about *The Drowned Man* and *In The Beginning Was The End* due to the elaborate and detailed sets and props. Punchdrunk's artistic director, Felix Barrett, described their aesthetic as being focused on 'detail' and stated that for them 'detail is everything' (Wilson, Creative Review, 2015). According to Zimmerman and Salen, such aspects do not make an experience immersive and instead immersion is produced through the design of meaningful action for the player or audience member. They argue that to create meaningful action for players, there must be a systemic design of affordances and constraints that generate meanings within contextual frameworks.

A way to understand immersion as meaningful action (in terms of performance) concerns the notion of praxis in narrative. Jim Bizzochi and Robert F. Woodbury (2003) tell us how for centuries it has been the case that diegesis and mimesis have been the core methods for telling stories. We can either tell a story or we can show one. However, they argue that there is a '[…]third mode — praxis' that can build '[…]story not just in the telling or the showing but also in the doing' (Bizzochi & Woodbury, 2003, p.559). This notion of praxis is central to ergodic design and the creation of representational universes. *Early Days (of a Better Nation)* and *A Small Town Anywhere* are examples of this. In these pieces, unique narratives of the experience are fashioned through an application of learned systems that generate meaning via the 'doing' of the audience members and not just the 'telling' or the 'showing' of the

performers. Praxis in storytelling can lead to LeBlanc's notion of emergent narrative, as story is developed by the players (or audience members) and not by the performers, writers or designers. In *Early Days (of a Better Nation)* it is not the designers and practitioners who decide how the new, post-war society will operate, nor do they decide which factions will make alliances or become enemies. Instead, it is the audience members who, through praxis, develop a narrative unique to them. Mees argues that work like *Early Days (of a Better Nation)* 'gives people the space to think about something' and that as a practitioner she 'is setting the experiment' and 'not setting the outcome' (Mees interview, 41:44). For her, 'outcomes can be multiplicitous' and she is always interested in 'grey endings' that are not always complete or completely resolved dramatically. This approach enables her to 'preserve agency' in the work and represents some of the conceptual shifts Coney has made in its approach to performance and agency. She argues that unlike a theatre playwright (or film writer), who designs and crafts every action their characters will perform in the narrative, in this work, it is no longer about what we (the writers/designers) want people to do (as the audience are now cast as the characters) but rather how we can facilitate a multitude of possibilities for them that can reflect their actions and ideas. Mees argues that we should design for 'binary outcomes' and not 'binary choices' and that the focus should be on 'getting them (the players) to the next plot point' and then to an ending that, 'reflects their choices' (Mees interview, 45:05).

In terms of game-based performance, the notion of praxis presents a series of challenges and issues concerning the position of practitioners in the creation of such work. Narrative emerges from player actions in games and to realise this in performance, we must reconsider the application of narrative and framing techniques. Chris Crawford (2005) offers an approach to this. He suggests that, 'interactive storytellers should focus on designing story-worlds and not

storylines' and tells us, 'there's a fundamental conflict between plot and interactivity, but not between meta-plot and interactivity' (Crawford, 2005). He argues that interactive storytellers must 'abandon' concepts of plot and linear narrative altogether. This approach requires audience members to co-construct a narrative through praxis with the possibility for failure, incompletion and often repetition. We can see examples of this in many computer and video games. *Grand Theft Auto V*, for example, presents a story-world filled with the possibility for failure, incompletion and repetition. Sometimes the character you are controlling can be arrested, killed or can fail to complete an action within a time limit and this results in players having to repeat a mission or leave it incomplete. Similar events occur in *Dishonoured* and *The Elder Scrolls V: Skyrim*. A challenge to praxis in live performance is described by Mees as 'responsivity'. Mees describes herself as a practitioner who 'specialises in crafting frameworks that are interesting but can hold a meaningful arc', positing the question 'how much do you need to tell people at the start of these experiences?' (Mees interview, 29:00). This tension is further described in terms of thinking about the balance between 'back plot and plot', improvisation from the actors versus scripted events and how to create 'the things that have to happen' or the 'anchor points' in a way that still supports the sense of agency for the audience members. The challenge here is in 'building a dramaturgy with all those things that can still hold its shape' (Mees interview, 30:48). Mees argues that in this work, 'plot is something that happens to the audience' and that it is something 'for them to respond to' but that, 'story always works towards an ending in an attempt to reflect what has happened' (Mees interview, 32:50). She adds that this tension between agency and plot is not as paradoxical when designers move their focus away from binary choices as the story becomes about the players, and not the characters designed by a writer.

A further concept offered from Mees, concerning this tension between the passive and active

experience of players in narrative games, is the 'difference between an emotional arc and a narrative (in terms of plot) arc'. She explains that as a practitioner in this work, 'you don't design the emotional arc but instead you design the plot arc.' (Mees interview, 47:20). An example of this approach from the field of computer and video games is *The Walking Dead: Series 1*. The approach in this game was to design, write and create a series of plot points that will move the narrative arc forward and present players with a variety of different scenarios that will elicit a variety of different emotional responses. There is a difference to consider, however, when we apply this approach in live settings. People have a range of emotional responses that can reflect and collide with each other across a social, political and moral spectrum. When you play *The Walking Dead: Series 1* it is your own personal emotional arc that is reflected back to you, as you (as a solo player) make the various decisions offered. In *A Small Town Anywhere* or *Early Days (of a Better Nation)*, however, where you play the experience with a group of people in the physical space, there are a variety of emotional arcs reflected off the plot points offered by Coney. This variety results in debate, discussion and varied emotional states amongst the group. Hegel may be inflected here in that an audience member's concept of 'self' is realised through an acknowledgement of their actions by other people. For example, during the Berlin play-test, when I attempted to steal a factory from another faction, some people agreed with my actions within the game and others urged me to reconsider. In this case, I was illustrating Ehmann's point about unpredictability in physical games and exploring McKenzie's notion of behaviours that are not usually appropriate in real life.

We can find synergy in the approaches developed in the field of applied theatre. C&T Theatre Company has developed 'dramatic properties' that share many similarities with the game design concepts of praxis, representational universes and story-worlds (see *The Dark Theatre*,

p.4). At the heart of their educational projects is a theoretical framework that offers a rigid boundary and the opportunity for learning by praxis. Story-worlds in C&T's work are described as 'concept ludic narratives' that offer 'dramatic concepts' that have 'narrative potential' that is 'released through active, improvised engagement with the material product of the concept' (Sutton, 2006, p.46). An example of such a concept, ludic narrative, can be seen in *The Dark Theatre* (see p.4). The notion of 'narrative potential' helps us develop game-based performance practice, as it places the emphasis on possible narrative events and not pre-determined events. When creating story-worlds, practitioners become more focused on developing 'dramatic concepts' that can produce emergent narrative. This focus repositions the development of emotional arcs in terms of characters or performers and places it with the audience members.

To summarise, immersion in both game-based performance and physical and digital games, can be understood as an interpenetration between game players and game structures. This interpenetrative quality redefines audience members from participants, who move between states of co-collaborative performance-making and spectatorship, to players, who inhabit design structures and maintain their central positions via a systematic design of affordances and constraints. Narrative in these immersive experiences (as defined in this section) is expressed through a lateral and non-linear design of balanced choices and decisions that focus more on emotional arcs for players and less on plot arcs for characters and performers. Therefore, immersion in games can produce emergent narrative as opposed to embedded narrative.

3.1.4 **Impacts of Agency Driven Approaches on Performance Practice**

Generating agency through a combination of ergodic design, the creation of representational universes, the development of story-worlds and the application of narrative praxis have an impact on existing practices and concepts in performance. Such approaches (as described in this chapter so far) originate from the sphere of game-design and are now being fused with performance practice. However, before exploring the impact of merging these two spheres (gaming and performance) it is pertinent to highlight some of the similarities that exist also. For instance, there are synergies between performance and gaming both in terms of the terminology used and principles applied. Mees explains how Coney often uses techniques from performance practice when creating game-based performance. These can include the use of lighting design, sound design and three- or five-act structures to inspire their narrative arcs. For example, *A Small Town Anywhere* is played in a performance studio and utilises a series of lighting and sound states. *Wilfred Bagshaw's Time Emporium* deploys similar techniques to create the appropriate atmosphere and mood. Mees also argues that there are often structural similarities in this type of work in terms of world building or developing a narrative and designing a plot.

Despite such synergies, it is the agency focused ergodic approach to audiences that impacts existing performance methodologies. Reid expresses this as a repositioning of audiences from a place of no knowledge (the position of spectator) to a place of some knowledge and the 'capacity' to know more, reflecting the theories of Rancière (Pop Up Playground interview, 1:05:00). This shift impacts on our understanding of praxis in performance with Ehmann suggesting that conventional performance is often a 'closed world' that offers the 'possibility for reaction', whereas games are an 'open world' that offer the 'possibility for

interaction' (Ehmann interview, 26:32). We can argue, therefore, that gaming offers performance the opportunity to depart from the traditional history of narratology.

These conceptual shifts also have implications for the more practical issues in performance practice, including the documentation and writing of this type of work. Mees expresses how she is 'still not sure how to lay out a script for actors and crew' (Mees interview, 33:48) in this type of work. She tells us that to manage the complexity of this type of work, members of the company (performers and crew) only 'know what they need to know' — so as to not cause too much confusion or spoil the opportunity for emergence and agency for audience members. In practical terms this means that performers will rarely see a whole script and will sometimes even not get a traditional script, with set lines, at all. This resonates with the scripting approach used by The Larks. Often performers in their games will receive a few bullet points containing the relevant narrative elements to convey and instead of learning lines, they will have to develop a character and performance through improvisation in order to prepare for an audience member that they have never met before. An approach to presenting such information, for all those involved in a production like this, can be seen in a work in progress piece from The Larks, *Room Zero* (2014). In this piece the narrative plot points or 'anchor points' are plotted into a spreadsheet-inspired script for ease of reference and accessibility to everyone involved in the production (see figure 4).

Andrew Crofts offered the following description for this systemic approach:

> This has become my favoured way of putting it together. So, colour codes for names, items different 'kinds' of dialogue etc. and most importantly the code for each bit of dialogue in the left margin. Most of these are room specific so they start with 'R#' (where # is the number of the room). Some, such as the architect's interruptions, aren't room-specific so start with an 'A' for example. After the room number and a '.' comes the likely order of the dialogue then a second

'.' and any optional hints associated with that bit of text. The next bit of text that will definitely play, for example after a task has been completed, will be the next number in order along with its associated hints and so on.

Or, if you prefer:

room_number.task.hint

or (where #=room number, t=task and h=hint):

R#.t.h'

So R3.3.2 is the bit of dialogue that happens in room 3, it's the third 'task' and the second optional hint.
R23.1.4 would be the fourth optional hint for the first task set in room 23 (Crofts, retrieved from email, 2015).

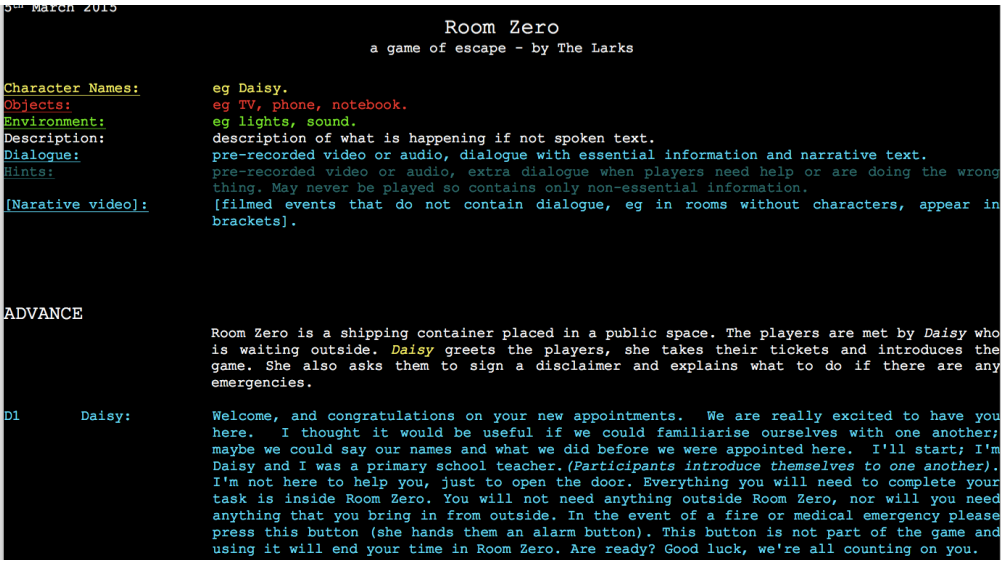

Figure 4: *Room Zero*, The Larks, 2015

In terms of performance technique, Mees explains how such an approach is still immersive for the performers but not in terms of Stanislavski and method acting. Instead, the focus for the performers is to prepare themselves for any instance or situation that could occur with the audience and not just the one described by the playwright. Due to this, Mees argues that performers in this field need balanced direction from both a director and a dramaturg so that they feel they can respond to any situation without breaking the narrative and plot arc that

supports the agency of the audience. Ehmann further backs up this notion, suggesting that performers in this work have to develop further their improvisational skills due to the unpredictable nature of public spaces and player interaction (Ehmann interview, 24:51). He argues for new methods of rehearsing and performing to be developed in order for this element of the work to be successful.

There are also impacts for game design practice when fusing gaming with performance. For example, Reid suggests that when playing games in the live space and, in particular, public spaces, players 'read things with more significance and that everything in a game world takes on a second layer of expectation' (Pop Up Playground interview, 1:06:20). He argues that we question everything and its relevance to the game world we are playing in. In game worlds designed in live and public settings, there is a second layer of experiential narrative. Audience members become players who have abilities, agency and the capacity not only to interpret narrative but also create it, based on their own experience of the event. A further way that Reid offers to express this difference between performance and gaming is when he says, 'Theatre is about sculpting the real and games are about sculpting the now' (Pop Up Playground interview, 1:04:16). If 'the sculpting of the now' offered in games is only considered in the digital sphere then the criticisms of Baudrillard become pertinent. Discussions on hyper-reality (a term commonly associated with digital arts) suggest that computer and video games can be described as presenting content where, 'signs no longer refer to or represent an external model' and that, 'they stand for nothing but themselves, and refer only to other signs' (Massumi, 1987, p.90). For Massumi, in the 'generalised digitality of the computerised society' all content is reduced 'to a molecular binarism' (Massumi, 1987, p. 90). In a chaotic urban public space this 'binarism' is somewhat minimised allowing players to read beyond fictionalised game signifiers and into the codifiers of their society and lived

space. It is this collision of the representational universe and the lived universe that allow for the sculpting of the now. In terms of performance, I suggest that game-based (or ergodic) performance is responsive in the moment an audience member performs an action within the live setting of the story-world, whereas non-ergodic performance is responsive in the moment a performer performs an action within a representative setting — designed through a series of pre-determined events. When an audience member catches 'A Doctor' in a public space during *Weeping Angels*, or embarks on a negotiation with other people who they might not know in *Early Days (of a Better Nation)*, they are 'sculpting the now' but when an audience member is positioned as a spectator to a scene of action in *In The Beginning Was the End, The Drowned Man* or *Peel Park Asylum* they are witnessing the 'sculpting of the real' by the performers who execute their pre-determined tasks.

The impacts on performance practice of such agency driven design approaches, as discussed so far, highlight fundamental differences between game experiences and some performance experiences. As expressed by the interviewed practitioners, a shift occurs in terms of our approach to the positioning of audience members and our understanding of the possibilities for reaction and interaction in live performance. This also impacts on the practical activities deployed by performance practitioners in terms of devising, rehearsing and presenting scripts. We also find that game practice is impacted by performance when we move games into the live space, especially the public space. Introducing performative elements into games, such as the live space and performers, can develop conversations around hyper-reality and relational aesthetics and in this sense, we can see gaming in the public space as a contribution to the 'growing urbanisation of the artistic experiment' (Bourriaud, 1998, p.15).

3.2 **Interactivity: Feedback Loops in Ergodic Design and the Need for Flow**

3.2.1 **Producing Feedback Loops in Ergodic Design**

Crawford (2005) defines interactivity as a system that has two or more active agents who actively listen, think and speak in a cyclic nature. This definition is fundamental to game design and it can also describe aspects of ergodic practice. All agents in games, whether computer-based or human-based, are required to put in effort to maintain this cycle and these efforts are communicated through formal control systems. As we have seen, such control systems can vary in design and approach and yet they all enable the interpretation of representational universes through player action. They achieve this through the development of feedback loops that maintain an active relationship between players, game components or narrative. It is these feedback loops that produce meanings for players within a context for interpretation. In this section I will examine how feedback loops are created in interactive gaming systems and explore how they are being deployed within live performance. For the purposes of my research, I will describe three different types of feedback loops that each contribute to interactive systems in games. The first are cybernetic feedback loops, the second are productive feedback loops and the third are narrative feedback loops. The concept of the feedback loop underpins the second pillar of this thesis (interactivity) and it also develops my contribution of introducing ergodic design into game-based performance.

Cybernetic Feedback Loops

Cybernetic feedback loops, which are found in computer and video games, are rule systems which are arbitrated through the use of digital sensors, controllers, comparators and activators. Salen and Zimmerman describe them as ‘sub-systems that regulate the flow of play,

dynamically changing and transforming the game elements' (Salen and Zimmerman, 2004, Chapter 18, Section 3, para. 1). In such systems, agents are a mixture of computer systems and human players who are each engaged in a cyclic process of communication. For example, quick movement of the *Playstation Move* controller by an 'idiot' in *Idiots Attack The Top Noodle* will result in the computer system identifying this action and responding by changing the player's light signal from blue to red, therefore eliminating them from the game. When driving vehicles in *Grand Theft Auto V*, a failure to properly control the trigger button on a player's controller can result in them crashing the vehicle. The interactive loop in these experiences communicates both positive and negative feedback to the player (LeBlanc, 2001) and the digital programming acts as the vehicle for communication between the agents of the game. Computer technology, therefore, is one method for maintaining Crawford's cyclic process of interactivity, both in screen-based experiences and computer mediated experiences. Naseem and Jarnfelt (Copenhagen Games Collective) offer an insight into how digital technologies (or cybernetic systems) can be developed for games in the physical space. One technique they use is what Naseem calls 'buddy storming' (Copenhagen Games Collective interview, 42:20). During a development process they explore the technical capabilities of a range of technologies with a focus on how these capabilities can become playful and fun in the physical space. These technologies, which are often sensor or controller based, already have cybernetic systems built into them but are not necessarily designed for the purposes of live or physical gaming. Instead, the approach can be to imagine how such technologies can be repurposed towards game-based experiences. The collective achieves this through collaborative and playful experimenting (in a physical space) where they attempt to identify possible game mechanics for their work.

Jarnfelt is a trained computer programmer and so his knowledge of coding, hacking and

hardware affords him a vast range of possibilities in terms of repurposing existing cybernetic systems. For example, Jarnfelt is skilled in using a piece of 3D computer game programming software called *Unity*[17]. This software runs on most main operating systems and offers a free 'personal' version alongside a 'professional' monthly subscription version. Although I have downloaded and explored this software myself, the main barrier to access lies in the issue of coding. Jarnfelt has used *Unity* in many of the physical and computer mediated games that the collective has created (such as *Idiots Attack The Top Noodle*) and his knowledge has allowed him to repurpose this software to such purposes.

Despite performance practitioners often not having such skills, the method of repurposing technologies is still available to them. Mees concedes that the challenge to using more advanced technologies in Coney's work is their lack of in-house and advanced technology skills. However, she describes how Coney often 'start where the audience are' (Mees interview, 1:17:58) in terms of their approach to the use of technologies in their work. This is an appropriate way to consider the use of technology in creating interactive systems because 'off-the-shelf' consumer technologies are readily available and often accessible. For instance, mobile telephones, SMS text messaging, digital cameras and other functions are standardised elements in contemporary smart phone technologies and they can offer a range of interactive affordances for Coney's audiences. In *A Tail of Two Cities* (Coney, 2014), Coney utilised SMS technologies that allowed a computer to respond differently to a player's varying text messages as they explored a city and this process was accessible to them without the level of expertise of programmers like Jarnfelt.

Focus explains that they are not app developers nor computer programmers and so do not use

[17] 'Unity is a flexible and powerful development platform for creating multi-platform 3D and 2D games and interactive experiences. It's a complete ecosystem for anyone who aims to build a business on creating high-end content and connecting to their most loyal and enthusiastic players and customers.' (http://unity3d.com/unity)

such technologies in their games. Uguzzoni says, ‘we prefer to use nothing’ in terms of technology (Focus interview, 1:12:35). They express how in their view technology can often put a barrier between the player and the actual game and therefore negatively impacts on the experience and the goals of their organisation. However, they do concede that they often find their games require players to use digital cameras, as these are accessible and widely available tools for their audiences. In both *Critical City* and *Basilicata Border Game*s, players are required to document evidence of their completed missions as uploaded pictures or videos as proof of their accomplishments in order to obtain the points. Furthermore, they explain how this also serves the purpose of documenting the gameplay, which is useful for them in terms of marketing materials or applications for funding revenue. For Pirovano, the technology used depends on the game they are designing and whether it is appropriate and will have the desired effect (Focus interview, 1:16:03). For example, using an online platform for *Critical City* (2011) is appropriate as it allows the game to be synchronised and managed globally, which is something that would not be possible with strictly analogue technologies and approaches such as physical score boards.

Reid argues that new technologies have a lot of potential in this field and expresses his desire for Pop Up Playground to become more involved in experimenting with and applying these new tools for live games. Currently though, as Lothian explains, Pop Up Playground does not use a lot of new technologies in their work. They wish to be as inclusive as possible and do not want a lack of technology, in terms of what the players might have access to, to be preventative from playing their games. However, Lothian expresses that, ‘when we do use technology, we try to use stuff that anybody would have’ (Pop Up Playground interview, 1:41:43). One example, (as with Focus) are cameras, which are prevalent in contemporary mobile phone technologies and this is something they frequently incorporate into their games.

For Reid, however, the ‘community can’t handle too much technology at the minute’ and instead their focus is ‘about building the infrastructure (in terms of community, players, designers and marketing) of an emerging industry’ (Pop Up Playground interview, 1:42:16).

As with computer mediated games, which fuse the physical and the digital spaces, there are examples of computer games where cybernetic feedback loops are effected by physical conditions. For example, *Cart-Load-O-Fun* (Chad Toprak, Melbourne, 2012) is a simple, multiplayer, screen-based computer game that was installed onto a Melbourne city tram. Players (passengers on the tram) could play the game whilst travelling to their destinations by using the simple pressure pad controls, which were integrated into their handlebars. A cybernetic feedback system is utilised (the digital pressure pads) but the bumpy journey means that players have to factor in real life instances when attempting to control the digital screen-based environment.

However, there are criticisms to make of the use of cybernetic feedback systems in live gaming and performance. For instance, in games such as *Idiots Attack The Top Noodle*, the technology can sometimes fail and break. There can be bugs within the programming or batteries can run out of energy or become damaged through the physical game play. Sensors can also lose their capabilities through prolonged use or be more or less responsive to different players. All of these issues can result in a disruption of the cybernetic feedback loop and, therefore, dismantle the cyclic process of interactivity that has been generated. During the *Playpublik* Festival (Berlin 2012), I noticed how the EEG brain scanner used in *Idiots Attack the Top Noodle* would sometimes fail to read the brain waves of the player in the role of ‘The Brain’. The sensor in this device enabled communication in the interactive system of this game and when it failed, the system would fail also, resulting in the game having to be stopped and restarted.

Productive Feedback Loops

Interactivity in gaming is not only concerned with cybernetic systems. For example, productive feedback loops in games relate to the objectives of possible actions afforded to players and the impact of achieving those objectives within a game structure. Productivity in computer and video games is often represented through points-based systems that reflect the progress of your objectives. For example, in *The Elder Scrolls V: Skyrim*, completing quests, winning battles and discovering places, results in players obtaining more experience points that they can then use to improve their avatar's abilities within in the game. In computer and video games, this process is commonly called 'levelling up'[18]. Jane McGonigal (2010) describes this process in terms of 'work' and she argues that, 'the more challenging the work (in a game), the more motivated you are to do it, and the more points you earn' (McGonigal, 2010, p.51). Points-based systems are also prevalent in non-digital gaming and sport. *Basilicata Border Games* (Focus, Matera, 2013) was a physical citywide game that also utilised a points-based system. In this experience, the teams of players were given a set of challenges to complete each day and were required to document their efforts (as videos or photographs) and then upload them to a website. Examples of such documentation can be seen in the *Gameplay* section of the Prezi, under *Basilicata Border Games.* This material was then reviewed by the game designers who then awarded points to each team based on the completion of the challenges, special efforts made and whether they had successfully uploaded the material within the given time limit. Uguzzoni and Pirovano (Focus) describe how their intention in using a productive feedback loop in this way was to allow players to understand what was required of them and also to motivate them in the completion of their

[18] 'Level up': to progress to the next level of player character stats and abilities, often by acquiring experience points in role-playing games.
I levelled up after defeating the dragon. (http://en.wiktionary.org/wiki/level_up)

objectives. However, they said that they received feedback from some of the players (myself included) that the system of awarding points was not clear (Focus interview, 52:57). For instance, it was not always clear how they determined whether a challenge had been completed or not and what the criteria for special effort was. This effectively disrupted the cyclic process of listening and responding (between player actions and game objectives) resulting in confusion and even frustration at times amongst the players. One example included in the Prezi (gameplay section) shows my team's documentation of a mission that instructed us to 'stop the traffic'. As shown in the video, we decided to try and achieve this by creating an impromptu type of fashion walk where we used the road as our catwalk. The traffic does stop and so in the simplest sense, we completed our mission. However, the rules did not communicate to us how long we should attempt to stop the traffic or even what exactly qualified as stopping the traffic. There was also no clear communication as to what might be considered 'special effort' in our attempt. In terms of Crawford's definition of interactivity, there was not always clear communication amongst the agents within the game structure.

Basilicata Border Games, therefore, highlights both an advantage and disadvantage of deploying productive feedback loops without the use of cybernetic feedback systems. Computer programmes do not currently have the subjectivity of human beings and so their lack of opinion on player action can more successfully maintain the cyclical process of interactivity. In *Dishonoured*, if players fail to press the correct button (at the correct moment) to kill an enemy and complete an objective, the game system does not have the ability to consider the effort or emotion that those players have shown in their attempt. Instead, the computer system sees this action in a binary way: a failure or a success. In contrast, this lack of subjectivity can make it difficult to develop measurable player objectives that might not be

definable in objective or binary ways. *Basilicata Border Games* sought to reward players' creativity and innovation and a computer system can find such subjective qualities difficult to interpret.

Quantifiable systems can still be used to maintain interactivity in games without the need for any technology. Social games make use of no material components (see p.22) and still apply objective or binary systems to communicate positive or negative feedback, in terms of productivity. Such games highlight a pertinent social aspect to the application of productive feedback loops. Players of *Mafia* or *Werewolf* have no computer system to arbitrate how players are eliminated or killed within a game and instead rely on a social system of trust and fair play. This collective body (to refer back to Rancière, see p.45) represents an interconnected group of human agents within an interactive system who respond to each other via conversation, inquisition and accusation. For example, one player in *Mafia* might decide to build an argument as to why he thinks another player is part of the Mafia. In response the accused player can communicate back to the interactive system (via physical and vocal cues) to produce a successful deflection of an accusation or a successful vote for elimination. This type of interaction is entirely human-based but still maintained by a formal system of rules. In games that fuse subjective agents and objective rule systems, players are required to enter a mutual contract where they all agree to abide by the set of rules that determine their status within the game.

Public space can also be used as a system for feedback (in terms of game progression) in games. For example, *Train Mafia* (Copenhagen Games Collective, 2013) utilises public transportation as a system for feedback as well as a setting for the game. When playing this game on Copenhagen's Metro system (*w00t* Festival, 2013) I was eliminated from the game at an early stage. My progress (or lack of progress) in the game was communicated to me via my

expulsion from the train carriage by the other players. As I continued my journey on foot towards the end point of the game (where an end of game party was awaiting us) I met other players who had also been subsequently eliminated. In this sense, I could read the progress of the game as I walked by each Metro station. My own progress and that of the other players was communicated to me through the use of public space. In games like *Train Mafia*, aspects of the city can become agents within the cycle of interactivity.

Narrative Feedback Loops

Combined with cybernetic and productive feedback systems, games pertinent to this research also develop narrative feedback systems. Narrative feedback systems relate to Crawford's concept of story-worlds (see p.71) and they concern the communication and development of narrative between agents in an interactive system. We can find such feedback systems in computer and video games, social games and New New Games (including game-based performance). Crawford suggests that story-worlds can be expressed as a set of sub-plots that each offer a balanced decision (Crawford, 2005). He argues that:

> The interactive story-world must present the player with decisions that hang on a razor's edge, decisions that could readily go either way; the conventional story must give its characters decisions that can be made in only one way (Crawford, 2005, Chapter 3, Section 4, para. 3).

By abandoning all notions of plot and embracing 'meta-plot', Crawford is suggesting that interactive storytellers should see themselves as designers who exercise control over their narrative through the rules of an interactive narrative structure and not through a set of predetermined events. This approach is synergistic with Coney's interest in developing emotional arcs, as discussed earlier (see p.73), and we can see demonstrations of Crawford's

principle in pieces such as *A Small Town Anywhere* and *Early Days of a Better Nation.* By stringing 'a series of decisions together' (Pop Up Playground interview, 1:13:05) audience members in these pieces produce their own narrative from within a set of rules. They decide who they will expose in the fictional 'small town anywhere' or who they will ally themselves with in the 'better nation'. It is their interaction with the 'sub-plots' offered in this work, which offer 'balanced decisions', that sustain the narrative feedback loop. Computer and video games and social games have an established tradition in generating narrative feedback loops through the development of story-worlds. The narratives fed back to players in games such as *The Elder Scrolls V: Skyrim* are dependent on a series of balanced decisions that they encounter in their experience. For instance, *Skyrim's* story-world is populated with a series of factions (much like Winterwell's *Wilfred Bagshaw's Time Emporium*) that players can choose to ally themselves with or be in conflict with. The notion of a narrative feedback loop is generated due to the fact that there are consequences to any decisions made. Not joining 'The Thieves Guild' in *Skyrim*, for example, can mean that you do not obtain a special item (in this case a skeleton key) that will easily allow you access to other parts of the story-world, resulting in your experience of the narrative being different from those players that did join. In such computer and video games, narrative is created through a loop of interactivity between rules created by a game designer and actions taken by a player and these two functions operate in cyclical communication.

3.2.2 **The Gamer's Need For Flow**

A product of interactive feedback loops (cybernetic, productive and narrative based) is what many game designers refer to as flow. Csikszentmihalyi's description of 'complete involvement of the actor in his activity' (Csikszentmihalyi, 1975, p.36) is often used to describe the experience of playing a game. We can see how a constant process of cyclical

interactivity can develop such a state since players in a game are constantly required to respond to stimuli, make decisions and then react to any consequences. Flow is created and sustained by the cyclical process deployed by designers and it becomes the material structure of the feedback loops discussed previously. The psychological aspects of such experiences in gaming have recently been explored by practitioners and academics who argue for their wider societal potential. McGonigal (2011) describes flow in gaming as 'working at the very limits of your ability' and that in games 'both quitting and winning are equally unsatisfying outcomes' (McGonigal, 2011, p.27) because ultimately players wish to remain in their state of flow. Both Csikszentmihalyi and McGonigal have argued that flow in games is particularly appealing since everyday life (in contemporary western society) offers little opportunity for such a state. This had led game designers such as McGonigal to explore notions of gamification in terms of real-world goals with the belief that the attention we can give to virtual-world problems can be replicated towards real-world problems. For example, in 2007 McGonigal designed an online alternate reality game called *A World Without Oil* in which online players were invited to imagine an oil crisis had occurred and explore how they could change their energy consumption behaviours in the real-world via the structure of this fictional narrative.[19] The experience lasted for six weeks and upon its completion, McGongial concluded that,

> By turning a real problem into a voluntary obstacle, we activated more genuine interest, curiosity, motivation, effort, and optimism that we would have otherwise. We can change our real-life behaviour in the context of a fictional game precisely because there isn't any negative pressure surrounding the decision to change. We are motivated purely by positive stress and by our own desire to engage with a game in more satisfying, successful, social, and meaningful ways (McGonigal, 2011, p.257).

[19] For more information about *A World Without Oil* visit www.worldwithoutoil.org

Flow, therefore, can be seen as a powerful activity that is capable of changing behaviour and even opinion. Games, as Csikszentmihalyi discovered, offer an abundance of flow (McGongial, 2011) and therefore, if games are synonymous with states of flow, we must consider the state of flow in live performance when developing a Theatre for Gamers. To further this discussion, I will expand upon the definition of flow and then examine this in relation to some of the performance work analysed in my research.

To begin this discussion of flow in live performance, we can temporarily leave the spheres of theatre and games and consider states of flow in live music performance. Wrigley and Emmerson (2013) have argued that, 'it is likely that an optimal state such as flow is highly desirable for musicians to achieve when performing, and it is a state that may lead to improved performance experience and quality' (Wrigley and Emmerson, 2013, p.292). In their study, they investigate how a state of flow can be generated for music students and practitioners who undertake performance examinations and public performances. We can extrapolate this desire for an optimal state of flow to actors and performers in theatre and contemporary performance. Gruzelier et al. (2010) have carried out similar studies on the state of flow in actors where they describe flow in performance as a,

> Psychological construct describing that optimal experience when the performer is totally absorbed in performing and for them everything comes together. It arose out of consideration of the creative process, subsequently extended to the work domain, where the individual is fully absorbed in the present moment, which is itself intrinsically motivating and does not rely on any product or extrinsic reward. This requires an optimal balance between skill, mastery and challenge with immediate feedback about accomplishment (Gruzelier et al., 2010, p.113).

It is significant that both of these studies describe and examine flow in performers and not in audience members. This highlights a difference between games and some performance

modes, in that games aim to generate flow in their audiences whilst performance often only focuses on flow in the performers. We can see the lack of flow for audience members in some of the work analysed in my research. For example, audience members at *The Drowned Man* or *In The Beginning Was The End* do not experience a sense of flow since they require no 'skill, mastery' or 'challenge' that delivers 'immediate feedback about accomplishment'. The lack of an interactive system that links the two agents of audience member and performer removes the possibility for flow in the audience members in these performances. Though the actors and performers in such work might engage in a process of absorption that leads to feedback, the audience members do not. Therefore, a Theatre for Gamers needs to consider how a deployment of interactive systems can be used to generate a state of flow for its audience members and Chapter Four will consider this in more detail. However, there are pertinent examples in other live performance that allude to such notions. For example, audience members in *Wilfred Bagshaw's Time Emporium* are engaged in an interactive system that requires skill and mastery to complete missions, join a faction and ultimately expose the murderers. Audience members in *A Small Town Anywhere* and *Early Days of a Better Nation* experience flow in the development of emergent narrative as they make alliances or explore conflicts with other players. In each of these pieces it is possible for both performer and audience member to experience flow as part of the type of 'collective body' that Rancière has argued for. It is this notion of the 'collective body' that is featured in game-based performance practice since this functions as the core principle that enables interactive feedback loops to generate and sustain states of flow for all involved.

3.3 **Play: The Magic Circle, Gamer Qualities, Make-believe and Playful Communities**

Despite such previously discussed game-design principles (interactivity, agency, ergodic design and story-worlds) being necessary aspects to consider in the creation of a Theatre for Gamers, even more fundamental is an understanding of the concept of play. Play exists, according to Huizinga (1938), as a separate cultural form and should be considered as a 'significant form' or 'social function' (Huizinga, 1938, p.4). For the purposes of my research, play is interpreted as 'a stepping out of "real" life into a temporary sphere of activity with a disposition all of its own' (Huizinga, 1949, p.8). This understanding of play is also demonstrated in the work of the practitioners I have interviewed. For example, Quack (Invisible Playground) describes how his practice in games and playfulness has come from an interest in the notion of the 'participant stepping into the action' and he explains how game design has allowed him to explore the 'connections between power and knowledge' (Quack interview, 12:04) that this type of experience can often afford. *72 Hour Urban Actions* (Invisible Playground, 2013, Witten, Germany) is an example of this that explores one of Quack's main areas of interest, the public space. In this experience, the main game objective is to reanimate abandoned or unused public space through the application of game design and architecture. This sees the players positioned in central roles where, through action, they can create connections between public space and society outside of institutionalised or real-life structures.

3.3.1 **The Magic Circle and the Journey to the Playful State**

The notion that play offers the chance of 'stepping out of real life' and 'stepping into the action' is best exemplified by Huizinga's notion of 'The Magic Circle', which is a popular conceit in game design. Zimmerman explores 'The Magic Circle' and suggests that games 'create their own time and space separate from ordinary life' and suggests that, 'the idea that

conflict in games is an artificial conflict is part of our very definition of games' (Zimmerman, 2004, Chapter 9, Section 1, para. 1). In terms of performance, Zimmerman describes physical performance boundaries, such as the proscenium arch of a theatre and the physical boundaries of sporting arenas, as 'frames' that connect 'to the question of the reality of a game, of the relationship between the artificial world of the game and the real life contexts that it intersects' (Zimmerman, 2004, Chapter 27, Section 1, para. 3). We can see such frames used in many of the live games analysed in my research. For instance, the physical presence of video game controllers and brainwave scanning headsets in *Idiots Attack The Top Noodle* intersects with the artificial dystopian game-world in which a controlling elite class vies to maintain control over the lower class masses. The torches used in *Weeping Angels* frame the activity as playful as they act as the physical intersection between public space and the narrative of Doctor Who.

This focus on 'artificial worlds' within 'magic circles' can challenge Huizinga's idea that play is a 'significant form'. Bernard Louis De Koven (a former member and founder of the *New Games Foundation*[20]*)* has spent forty-five years exploring and researching playfulness and games. De Koven's writing and presentations act as anchor points that help to situate my own research in the field of play and they also bolster the argument for the importance of play in society. At the root of De Koven's main argument on play is a belief that playfulness is inherent in all human beings (De Koven, 2014) and that contemporary society (Western society) has taught us to distrust play as adults and associate all playful activity with childishness, immaturity and destruction (De Koven, 2014). Play is something we respond to immediately when it is manifested because it is something we all have within us (De Koven, 2014) and it is something that, according to De Koven, we cannot lose. This is to say that our

[20] An organisation founded in the USA (1970s) which facilitated free community play events in public spaces focusing on the belief that physical play was vital for everyone.

sense of play as human beings is an ingrained part of our humanity and that though we might forget (or be coerced into forgetting) this aspect of our habitus, it is always present within us. Such philosophy is echoed in the companies I have interviewed in my research. For example, Philipp Ehmann and The Street Game Conspiracy (Vienna, Austria) pursues an ambition to encourage everyone in society to play more in their lives. Ehmann concurs with De Koven when he makes the point that, 'everyone can play' (Ehmann interview, 6:30). Pop Up Playground also pursues this ambition and describes their practice as attempting to 'provide a space for adults to play' (Pop Up Playground interview, 12:55). Furthermore, as demonstrated in work such as *72 Hour Urban Interactions* and *Basilicata Border Games*, games do not necessarily always have to occupy the artificial space. In these experiences, play is brought to the public space with intended real life objectives that engage with themes of society and architecture.

De Koven's argument (as well as those forwarded by the interviewed practitioners) can be seen as a continuation of Huizinga's premise that play is a separate and distinctive cultural form and they argue against the appropriation of play or playfulness. For Huizinga (1938) play does not require the framing of other more established (or accepted) cultural activities (art, music, literature or theatre) to generate 'magic circles' of playfulness. In the same sense, for De Koven our playfulness is not something that needs to be taught to us, appropriated by other forms or reframed in anyway to elicit our playful behaviour. Instead, game structures and play activities are designed to encourage our natural playfulness to emerge.

Therefore, the challenge is how can these playful experiences be created to bring out this inherent playfulness? Slyvan Steenhuis (2013) offers a model for what he calls the journey to the playful state (see figure 5). It acknowledges the principles offered from Huizinga (1938)

and De Koven, and also resonates with Sutton's notion of the 'concept ludic narrative' (see p. 73). Though it is specifically designed for the context of creating playful experiences in the public space, it also provides a starting point on how performance can fuse with play to engage our playfulness in live events.

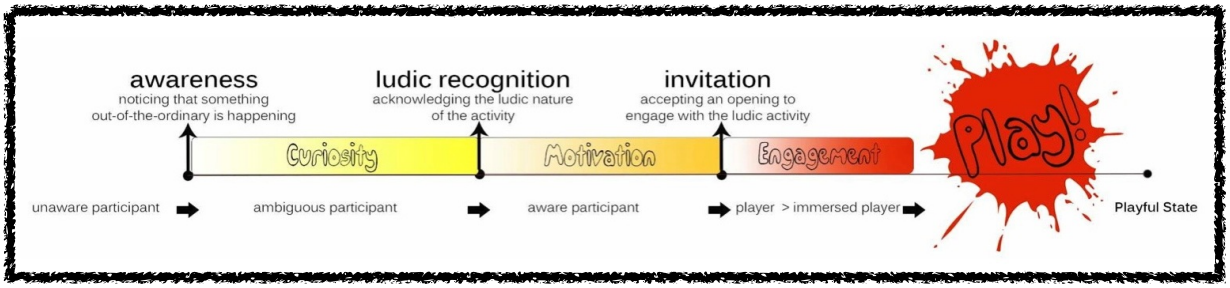

Figure 5: Journey to the Playful State (Steenhuis, 2013, p.9)

We can see how this model reflects the experiences of audience members in some of the work discussed in my research. The formal systems of control, which initiate cybernetic, productive and narrative feedback loops in pieces such as *Idiots Attack The Top Noodle*, *Early Days of a Better Nation* and *Wilfred Bagshaw's Time Emporium*, each enables 'ludic recognition' in their audience members. Through the use of computer game technology, game-based mechanisms or positioning audience members as Rancière's detective 'scientists', the practitioners in this work are intentionally attempting to motivate their audiences into the state of engagement that Steenhuis describes in his model. Such engagement in this work, as described by Steenhuis, is achieved through an invitation to engage with the ludic activity on offer and it is this invitation to play that we often do not find in spectator-based performance work. *The Drowned Man* and *In The Beginning Was the End* might invite audience members to explore a narrative world and physically move throughout a space but it is not an invitation to engage in a ludic activity that inhabits the 'significant form' of the magic circle. Furthermore, due to the lack of ludic activity, the 'playful state' (as described by Steenhuis), where our inherent playfulness is drawn out, is not realised in such performance works. Spectatorship, from a

gaming point of view, is not ‘fun’ and ‘fun’ is the deeper aspect to play that my research will now consider.

Game designer and academic, Raph Koster, argues that there is an inherent link between fun and learning and that good games are good teachers (Koster, 2010). He suggests that games ‘have more in common with how our brains visualise things than they do with how reality is actually formed’ and that games ‘are puzzles to solve, just like everything else we encounter in life’ (Koster, 2010, p.35). For Koster, ‘play’ is the fundamental concept in gaming and he argues that language does not appropriately distinguish between notions of ‘games’, ‘play’ or even ‘sport’. He describes all these words as ‘iconified representations of human experience that we can practice with and learn patterns from’ (Koster, 2010, p.37). ‘Practicing with’ and ‘learning from’ relates to interactivity and agency, as described earlier. To ‘practice with’ something suggests an ergodic technique is used to generate agency in games and the ‘learning from’ that practice relates to the interactive feedback loops that form a game design structure. Although performance can also fall under the description of ‘iconified representations of human experience’, it is again the position of the audience members (and the lack of ludic activity, agency or interactive design), in relation to such representations, that separates the experience of some performance works from playful experiences. For instance, in pieces such as *The Drowned Man* or *In The Beginning Was The End*, it is the performers who practice with and learn patterns during the performance since they are placed within positions of agency. The audience members are not playing and are instead spectating. In terms of Koster’s argument, spectating is not ‘fun’ since we do not practice with the iconic representations that we spectate.

Koster’s understanding of ‘fun’ aids in developing the significance of play outlined by

Huizinga. For example, in his interview, Reid offers a concise view on why he feels the work Pop Up Playground do is significant. He says, 'Play is fundamentally important to the development of human beings as a species. It's how we learn. When we stop playing, we stop learning' (Pop Up Playground interview, 14:52). Reid goes onto emphasise how playfulness can develop innovation, strategic thinking, imagination, improve our physical and mental health and many other things that ultimately have a positive and empowering effect on society. He suggests that ultimately play can make us question what we value in our society and undermine the capitalistic values (he perceives) that form the system we inhabit in western culture. McKenzie (also from Pop Up Playground) adds that whilst he enjoys the art-form of making games and playful experiences, he also understands the ability to utilise these principles to communicate complex or difficult ideas or concepts (such as teaching science to school children for example). Most importantly for Pop Up Playground, however, is the intimate quality of playing games in a live space as this is most effective, in their view, in engaging people into the aforementioned benefits. It is the relationship between the game and the players that makes a playful experience unique for Pop Up Playground. To quote Sony's 2014 advertising slogan for *Playstation 4*, the game is always 'for the players'.

Such understandings of 'fun' in play concur with Prensky's digital native concept (1998) as well as Aarseth's notion of the ergodic text. Players have a preference for 'payoff' over 'patience', and the idea that 'what you get is worth the effort you put in' (Prensky, 1998) describes the 'nontrivial effort' required in navigating a playful experience. Considering 'play' through the lens of Rancière, we can see how audience members of a Theatre for Gamers will expect a degree of emancipation from their roles of spectatorship and my research argues that this can be facilitated through a development of 'play' and 'fun'.

3.3.2 **The Ideal Qualities of Playful People**

It has been argued that engaging in 'fun' and 'playful' experiences will develop certain qualities in those who play. For instance, McGonigal's research (2010) offers a series of 'fixes' drawn from game design and observed in playfulness, which she argues will aid in fixing our 'broken reality'. In her 2010 TED presentation, 'Gaming can make a better world', McGonigal focuses on four areas or 'fixes' that she explores in more depth in her book, *Reality is Broken: How Gaming Can Make A Better World* (2010). These four 'fixes' offer a model to analyse the playful experiences (computer and video games, social games, new new games and game-based performance) that my research has considered. Furthermore, the ability to draw out such qualities in audience members who experience a Theatre for Gamers is one of the desired outcomes for this research.

The first quality that McGonigal describes is 'urgent optimism'. She argues that in game worlds people are urgently optimistic in that they are more willing to try again after failure and less willing to completely quit when trying to achieve a particular goal. According to McGonigal, the paradox for games is that, 'any gamer who puts in the effort can't help but get better. And yet the better we are at a game, the less of a challenge it presents.' (McGonigal, 2010, p.69) An understanding of this design principle is demonstrated in some of the work considered in my research and it proves crucial in the development of a Theatre for Gamers. For example, despite their restricted movement, the game design of *Idiots Attack The Top Noodle* still encourages the 'idiots' in the game to attempt to capture 'the brain'. When playing this game myself as an 'idiot', though I experienced difficulty in capturing the brain, it did feel possible since there were a number of 'idiots' for 'the brain' to avoid and only one 'brain' to survive against the numerous 'idiots'. The players had the opportunity to work together as a team and attempt to corner the brain, distract them from concentrating and

eventually make physical contact. Taking the role of a time-travelling detective in *Wilfred Bagshaw's Time Emporium* also created a sense of urgent optimism. In this game however, it was the narrative that encouraged this since we were positioned as characters who had more knowledge of the wider game-world than the characters populating the medieval English setting. As with *Idiots Attack the Top Noodle*, players worked together in small teams and each successful mission made us feel closer to the final goal of stopping the murder of the historical figure and saving the timeline. Games set in the public space that aim to interact with the public or the physical space have also generated urgent optimism in my research. For instance, *Basilicata Border Games* invited foreign players such as myself to attempt to engage with a range of Italian businesses and people to achieve our missions. One such mission involved me trying to find a barber who would give me an 'asymmetrical hair cut' despite my inability to speak Italian or my nervousness at getting such a hair cut. After several attempts and the encouragement of my team, alongside the game-designed allure of successfully completing the mission and completing the game, I eventually achieved this goal for my team and perhaps behaved in a manner that I would not have done outside of a game world (see Prezi, Gameplay, *Basilicata Border Games*). Games like *Basilicata Border Games* help to demonstrate how 'urgent optimism' is not only a quality of virtual or digital gamers but can also be attributed to players in the real world.

The second quality in gamers from McGonigal is 'blissful productivity'. Using the popular massively multiplayer online game *World of Warcraft* (Blizzard Entertainment, 2004) as an example, McGonigal argues that gamers experience a positive sensation when immersed in 'work that produces immediate and obvious results' (McGonigal, 2010, p.54). She argues that the clearer these results are to us, in relation to how quickly we can achieve them, causes us to experience 'blissful productivity'. This is why people will spend hundreds of hours doing the

menial tasks in games such as *World of Warcraft* as the feedback is instantaneous, progress is swift and there is often the promise of a new challenge or reward as a goal. This relates to the interactive productive feedback loops previously discussed in this chapter and the computer and video games considered in my research illustrate this point. *The Elder Scrolls V: Skyrim* demonstrates 'blissful productivity' through its levelling up mechanism. As players complete missions, kill enemies and discover objects and places, experience points are earned that increase a player's numerical level indicator and this unlocks new abilities and possibilities for their play. Such opportunities to gain experience points and unlock new abilities are numerous throughout the game and the work that players have to put in is quickly acknowledged and rewarded. As you earn more 'xp' (experience points) your avatar becomes more powerful and a link is developed between the sometimes menial tasks involved and the outcome for your character. In terms of game-based live performance, instantaneous feedback and swift progress that relates to menial tasks is a difficult challenge for practitioners. For instance, *Early Days of a Better Nation* invites players to engage in a range of smaller tasks that will impact the wider society that the players are trying to create. However, it is difficult in such an experience to communicate instantaneous feedback that results in swift progress, as there are only so many performers/facilitators to co-ordinate a large group of players and no cybernetic feedback systems that can immediately communicate progress. 'Blissful productivity' in games therefore requires swift feedback systems and developing these in performance is a concern when creating a Theatre for Gamers. Computer mediated games in the physical space (such as *Idiots Attack The Top Noodle*) can make use of cybernetic feedback systems to produce swift progress for their players. For example, when an 'idiot' is eliminated by 'the brain' in the game the feedback is instantaneous as the light on the *Playstation Move* controller immediately turns red and the players do not need to wait for a human agent to communicate the result of a particular action.

McGonigal's third quality is described as the gamer's ability to weave a 'social fabric'. She tells us that in games we like to feel like we are part of something bigger than ourselves and that the happiness many people draw from game playing experiences is rooted in the notion of being part of a 'collective' (McGonigal, 2010, p.173). This 'social fabric' can be described in terms of family, friends, co-workers or whole communities and it is considered a vital aspect of game playing experiences for McGonigal. My research considers this notion of a 'social fabric' in games in relation to the physical manifestation of different social structures afforded in some types of theatre and performance. In live games, the 'magic circle' encompasses all within the game (actors and non-actors, to use Boal's term) whereas the physical structure of a stage and auditorium combined with the behavioural structures often deployed by actors, concerning notions such as the 'fourth wall' or 'circles of concentration' (Stanislavski see p. 46), often set up a divide between the groups of people in the space. There are the actors and their playing area and then there are the audience members in their own spectating area. I argue that gamers expect a more lateral approach to socialising in a shared physical space as well as one that does not afford more power or focus to one particular group, and that this relates to Rancière's notion of 'emancipation'. We find such 'social fabric' being weaved in much of the work I have analysed in my research. *Basilicata Border Games* and *72 Hour Urban Interactions* both created game experiences where groups of people from different nationalities, with different skill sets, congregated within the framework of a game in a public space. In both of these experiences there were examples of moments where game designers, game players and members of the local population each weaved a social fabric within the magic circle of a game. For example, one of the missions in *Basilicata Border Games* involved each team attempting to organise a party for the local people in Matera, Italy. The task involved creating different themes, party decorations and catering but crucially it involved seeking out and inviting the people of the city that we had previously interacted with

in previous missions. The result was a successful and impromptu event that fused game designers, game players, members of the public and even local politicians into a social fabric generated through an urban game. Similarly, *72 Hour Urban Actions* also generated moments of 'social fabric'. My team's final piece of playful architecture, *The Lost Property Office* (see Prezi), involved hundreds of shredded ribbons of white plastic. This was a very long process that required us to work constantly throughout the night to achieve. However, since our site was positioned in a derelict piece of land surrounded by privately own apartments and homes, the people living there became curious as to what we were doing with our strange structure. After interrogating us and learning about our project, the local people at that site decided that they would like to help us in the cutting of these hundreds of ribbons. The local people had stepped into the magic circle and together we had weaved a social fabric supported by a game objective.

The final gamer quality identified by McGonigal is a desire for 'Epic Meaning'. She argues that, 'compared with games, reality is trivial. Games make us part of something bigger and give epic meaning to our actions' (McGonigal, 2010, p.95). McGonigal goes on to argue that, 'epic is one of the most important concepts in gamer culture today' (McGonigal, 2010, p.96). According to her observations, contemporary blockbuster video games excel at being 'epic' in three ways. They offer epic contexts for action that allow us to tie a larger sense of meaning to our individual actions, they create epic environments that provoke our curiosity to explore and they engage us in epic projects that are often cooperative and engage us over a long time (McGongial, 2010). This notion of 'epic' is again reflected in much of the work analysed in my research. Epic themes in this work include the fate of humanity's timeline resting in the hands of the players of *Wilfred Bagshaw's Time Emporium* and in *Early Days of a Better Nation*, the future path of an entirely new post-apocalyptic society is decided by the players.

Hegel's understanding of the epic genre underpins much of the engagement with such themes in drama and performance. In drama, the epic genre has been described as portraying, 'a series of events which are partly determined by the inner designs of the human and divine characters involved, but partly also by the obstacles in the external world which frustrate those designs' (Steer, 1968, p.637). Brecht's twentieth century epic theatre takes a different view on this idea. Whereas for Hegel, 'drama portrays man attempting to reduce the alien world to the forms of his own subjectivity' (Steer, 1968, p.638), Brecht's 'technique of alienation is designed to point up the alienation of the world from man' (Steer, 1968, p.638). This notion that, 'the external world…dominates human subjectivity' reflects the nature of the game design featured in the types of computer and video games that McGonigal has referred to. For example, in *The Elder Scrolls V: Skyrim* a player is given a world view (quite literally at times through the use of a world map that enables instantaneous travel throughout) and the virtual and programmed world 'dominates' the subjective view of the player in the real world controlling their virtual character. This notion is not bound to virtual gaming as game structures in the physical space also attempt to dominate the subjective view of their players through physical or societal obstacles. Applying such theories to games, we can see game obstacles as the elements that, 'frustrate' the 'designs' of the human agents (the players) involved and in this sense all games, from a dramatic view point, hold an epic quality.

The four gamer qualities outlined by McGonigal, which are generated in games through a combination of ergodic design, interactive systems, the development of agency and the generation of flow have impacts on the creation of a Theatre for Gamers. Such a theatre also needs to respond to gaming culture and companies such as Coney have described such responses in a discussion of their own work during my interview. Coney explores performance work where the audience members are invited to 'go on a journey' and a focus

for them is in creating a 'meaningful engagement' for their audiences. As inferred by Zimmerman and Salen (see p.70) 'meaningful action' is an expectation for the gaming community and yet with performance, as Mees argues, there is a growing audience looking for experiences that are similar to games in this respect. Mees relates this view to the work of Alain de Botton and his book *Religion for Atheists* (2012). De Botton suggests that cultural experiences are now replacing religious experiences, arguing that many people now find meaning in life through culture rather than religion. This is reflected in Coney's work when they invite audiences into experiences that are not life and that offer meaningful engagement. However, Mees does acknowledge that some of Coney's audience members are gamers who are used to being in the lead role and simply relish the chance to do this in a live setting. However, the focus for companies such as Coney is the experiential aspect of a live event and the challenge of creating experiences in live work, or in becoming (to use Ehmann's term) an 'experience composer' (Ehmann interview, 3:38), is a further area that an understanding of play can impact upon.

3.3.3 **Make-believe and the Implication of Play on Narrative**

One aspect of experiential events, in both digital and physical games, concerns the practice of 'make-believe'. 'Make-believe' is a challenging contradiction for game designers and has been described as, 'the paradox of make-believe' (Klevjer, 2002, p.197). In an experiential event like a game, we want 'freedom in the worlds created for us but we also need our actions to be meaningful' (Klevjer, 2002, p.197). For game designers this is paradoxical because they try to offer complete freedom for the players in their game worlds but at the same time try to build into this world a rigid structure that moves the players forward in the experience. Game designers often attempt to achieve this through their use of narratives that attach meaning to the freedom of action afforded. There are examples of this in many of the game experiences I

have analysed in my research. In games such as *The Elder Scrolls V: Skyrim* (2011)*, The Walking Dead* (2012) *or Grand Theft Auto V* (2013), 'we do not just want to play (as in football, chess or Tetris), we also want to play make-believe' (Klejver, 2002, p.197). To create experiences that invoke 'make-believe', game designers have taken an interest in popular genre fiction where players can make use of their pre-existing knowledge of characters, narratives, cliches or behaviours to provide them with a platform of knowledge to navigate their experiences. *Grand Theft Auto V* (2013) presents a series of well known satirical cliches from gangster and crime films. These are realised in the dialogue, the aesthetics and the set pieces that the players are offered throughout the experience. For example, in the various 'heist missions', before the intricacies of that particular mission are revealed, players are often already equipped with the basic knowledge that a heist in this type of genre will involve careful planning, a successful robbery and evasion from the police. A populist mass market audience is likely to have an understanding of how to behave in this game and therefore easily engage with the material on offer. Telltale's *The Walking Dead* (2012) also demonstrates such engagement with genre fiction. Again, the intended market for the game is already equipped with enough knowledge about the nature of a world overrun by zombies meaning that they know many rules and norms that are appropriate to play the game. For example, there is already an understanding that when you see zombies you should run, do not get bitten by one or you will be infected and that the moral standards and attitudes in this type of story-world are often pushed to the extreme.

This impacts on the application and design of narrative in a Theatre for Gamers. In many computer and video games 'you are not just guided, you are spoken to' and 'a recognisable rhetoric meets you: the voice of a genre' (Klejver, 2002, p.201). Klejver goes onto suggest that a combination of style, setting, characters and simple stereotypical events can bring

recognisable story-worlds to life for players. This resonates with the historical commentary I made in Chapter One concerning the pre-existing knowledge that many audiences to Ancient Greek and Renaissance theatre had, which allowed them to engage with content and themes that were contemporary and relevant in their societies. Therefore, exploiting such pre-existing knowledge in audience members in a Theatre for Gamers is both an acknowledgement to ancient performance traditions and a development in contemporary, game-based performance practice where we invite our audience members to play 'make-believe' and not only spectate it.

3.3.4 **Developing Communities of Play**

In 2013 it was reported that more than 1.2 billion people worldwide are now playing digital games.[21] There is a clear and established community of digital gamers that spans countries, age groups and gender. However, my research aims to establish who the developing audiences are for an emerging game-based live performance practice and how that community is being (and can be further) maintained and developed.

Naseem and Jarnfelt offer various labels to describe the groups of people who experience their work with Copenhagen Games Collective (Copenhagen Games Collective interview, 15:07). 'Users', 'players' and 'audience' are all used to describe these groups drawing from both the language of computer games and dramatic entertainment (theatre, films and television). For Focus, the majority of their players are University students or recent graduates and they report finding an equal balance of men and women engaging with their work. It is

[21] This figure is according to 'The State of Online Gaming Report' by Spil Games, 2013.

often the case, such as in games like *Critical City,*[22] that their players come from niche or alternative sub-cultures, spanning from technology enthusiasts to activists and live action role-players (LARPers). In a different project from Focus, *Basilicata Border Games*, Focus noticed how their audience diversified. This project attracted a lot of players from the creative industries whilst also attracting players with little to no professional or educational creative experience at all. The same is true for those players in Invisible Playground's *72 Hour Urban Actions*. Pop Up Playground describes this field of live/urban games as being 'very new, particularly in Australia' (Pop Up Playground interview, 23:40), so the audience is currently relatively small. For them, players are often people who already hold an interest in games (live action role-playing games, board games and computer and video games) but can also be theatre audiences — especially when they produce play festivals in theatre spaces in Australia. In addition, when creating events in city squares and cultural hubs (for example, Federation Square, Melbourne) they also attract general members of the public who happen to be there or passing through. Sometimes they create work for very targeted audiences such as at comedy events, which have regular audiences. When designing their festivals, Pop Up Playground create different levels of engagement for different types of players. They explain that some of their games attract people who enjoy long and involving experiences whilst others attract players who want a short, fast-paced experience. Some games attract people who enjoy more conversational and cerebral activity whilst others attract those interested in more arts- and crafts-based experiences. For some audiences, 'silly' or humorous games are enough to engage them.

As this new audience emerges, I ask: How can we develop this audience further and how can

[22] Critical City is an Italian based online game which invites players to perform a series of tasks/missions around the city that make an impact to social, economic or cultural issues. Players are invited to upload documentation of their missions to a website and are awarded points that allow them to graduate up through a levelling system. This is their website: http://hof.criticalcity.org

that audience be maintained? Ehmann offers two suggestions (Ehmann interview, 12:15). Ehmann's first suggestion is that we should design physical games in public spaces that are accessible by large and diverse groups of people. Ehmann notes how in his observations at festivals and play events, people will often gather around a street game in an attempt to try and find out what is happening and will often then find a way to join in a playful activity themselves. As described previously, Steenhuis' diagram charting the journey to playfulness (see p.94) illustrates this progress from ludic recognition to motivation and ultimately a playful state. Pirovano (Focus) explains how difficult it can be to attract a mass audience to engage with this type of work, particularly in the public space, as the experience can appear very niche and specifically designed for certain groups. He expresses that there is a challenge in communicating these play opportunities to the public because the public space offers a wide spectrum of potential players (Focus interview, 6:45). Many of the play festivals in public spaces that I have attended during this research recognise this and attempt to programme work that attracts a diverse audience. Instead of trying to design one game that can engage with that diversity in the public space, companies such as Invisible Playground and Copenhagen Games Collective have created play festivals in the public space that aim to create a community of players and designers within the public sphere.

Secondly, Ehmann suggests that we should purposefully design games and playful experiences for specific groups that might not otherwise engage with this type of work. This could be true for groups (for example, adults, business people, members of the fine art community) who have traditionally been told that play is immature, frivolous or even dangerous. For Quack (Invisible Playground), this relates to something he calls 'the P. R. problem' where he explains that, as a collective, Invisible Playground is often confronted with pre-existing models of how audiences discover events and work and then how they interact

with it (Quack interview, 18:23). For example, he suggests that audiences for an exhibition at a museum or art gallery have certain expectations of how they will interact with a series of works, such as how long they might spend with each piece or what their behaviour towards it might entail. This can often conflict with the practical requirements of a game event in terms of timings, actions or expectations. Communicating this in an environment with such existing models and expectations can be challenging and he suggests that promotional material for this work be kept simple and include imagery that simply conveys what the experience has to offer. The most suitable environment for live games that Quack has experienced is at a festival on a Dutch island where there was a captive audience of two hundred people available and ready to play with little promotional effort at all. Therefore, according to Quack, the best audience for this work is a captive one that cannot 'move on' when confused or presented with something new. A further example of captive audiences for possible play is described by Naseem and Jarnfelt. Naseem explains how Copenhagen Games Collective, 'try to take their games to new spaces' (Copenhagen Games Collective interview, 16:45), which might include rock concerts, art galleries or nightclubs, with the view that new groups and types of people can be exposed to this work. My Playfuel collaborator Jana Wendler and I have explored such possibilities at nightclub events in Manchester during the course of my research. Naseem and Jarnfelt agree that in this type of environment and for these type of players, games that are small and easily understood are the most suitable due to the other activities afforded by that type of space (dancing, listening to music, drinking), with Naseem offering Invisible Playground's *Turtle Wushu* as an example of a suitable game. In Playfuel, we have adapted *Turtle Wushu* for nightclub events (see Prezi, Turtle Wushu).

Structuring and maintaining such playful communities are also a challenge for practitioners in this field and there are a variety of methods deployed by the practitioners I have engaged with

and interviewed in my research. For Focus, with *Critical City*, they discovered how the use of an online platform can facilitate actions in the urban offline space whilst creating a space in which the community of players (and themselves as designers) can maintain a global relationship with each other. Other technological approaches have also been explored. According to my interview with Mees, Coney is experimenting with online broadcasting technologies such as 'Showcaster' (an online web television broadcasting software platform that no longer operates) in an attempt to widen the scale of involvement in their live work in the moment it takes place. When exploring these types of technologies, Coney is interested in the question 'How can we make semi personalised live experiences?' (Mees interview, 1:21:40), which are accessible to larger groups of people in different locations. This is something that they continue to explore and perhaps as new technologies continue to emerge there will be greater opportunity to deliver this goal and create playful communities across physical and virtual spaces. As previously described, companies such as Invisible Playground have developed play festivals such as *Playpublik (*Berlin 2011 and Krakow 2013*)* in an attempt to create playful communities who can make positive impacts on wider society. Quack suggests that it is a live setting that offers games an opportunity to generate social impacts. He tells us that in live games, 'people meet each other' and 'social connections can recalibrate' (Quack interview, 49:06). Furthermore, he notes how in a live game world he has often observed how players will form a community after the event and share the narrative of their time in the game. I have experienced this myself throughout all of the play festivals I have attended during this research, partaking in numerous conversations with fellow artists and designers about the future of this field.

However, these play communities are not only desirable amongst groups of players after playing a game. Naseem wants to develop a culture of not only playing games but also

making games (Copenhagen Games Collective interview, 36:14). This is a growing trend in both computer and physical games with games such as *Little Big Planet* for the Sony Playstation, or *Trials Evolution* for the Microsoft Xbox, offering players the chance to design and share their own unique levels or racetracks. This presents a challenge concerning how players of games in the physical space can be invited into the design process. For example, it is often the case that return players to Pop Up Playground events and festivals will move into more of a production role and collaborate with them on new projects and games. Pop Up Playground emphasises that retaining this audience (the audience members who play and make) is often a lot easier than bringing first-time audiences back to future events. Social networking is one technique they deploy, with Lothian explaining how this has been useful to them for several reasons. Firstly, they have used social media to build communities of players and market the work. This has allowed them to access new audiences, using a range of media (video, photo and text) to promote and communicate the work. Secondly, they have found these networks to be useful when trying to develop their practice. Talking with and engaging with the international community of practitioners, as I have done in my own practice and this research, has allowed them to learn from other companies' mistakes and develop their approach to design and marketing. Such emerging play communities have loose boundaries between players and designers with people constantly moving back and forth between the two.

3.4 **Towards a Theatre for Gamers**

This chapter has presented the three main pillars that support a Theatre for Gamers. Through an applied combination of agency, interactivity and play, as well as a deep understanding of these terms in relation to both games and performance, the next chapter of this thesis will demonstrate how my practice in this field has created game-based live work that exploits the

knowledge uncovered in this chapter.

This analysis, presented in my research, of ergodic texts in gaming offers several points to carry forward into my own practice and creates a base for my original contribution to the field of performance. Firstly, I have acknowledged the difference between configurative forms and interpretive forms of media and art. Configurative forms frequently engage with the principles of Aarseth's ergodic texts and the manner in which such texts can create agency. The 'trivial amount of effort' required to engage in interpretative activity as opposed to configurative activity is central to my response to Rancière's criticisms on spectatorship and his demand to abandon the role of passive viewer. Therefore, a Theatre for Gamers is not solely interpretive for its audience members but is instead focused on configurative activity. Secondly, a study of ergodic texts has revealed that a Theatre for Gamers requires the implementation of some type of control interface (either physical or digital) between the components of the work (narrative, objectives, objects and performers), the physical space and the audience members. Actions and affordances for audience members must not exist in a state disconnected to the components of the work, as seen in the possibility for freedom of movement for audience members in work such as *The Drowned Man* or *In the Beginning Was the End*. Instead, actions and affordances must be designed to connect the effort from the audience members to the components and physical space of the work.

The control interfaces designed in a Theatre for Gamers can be described as formal systems of control that generate relationships between components, space and audience members. These relationships create a representational universe that places the audience members at the centre of the experience with the ability to navigate and create meaning from that experience. Due to this, narrative emerges from the experience instead of being presented from an embedded point within. A Theatre for Gamers should not be concerned with the telling of narrative

(story lines) but instead with the creation of story-worlds that allow a multitude of possible narratives. This impacts on the notion of participation in performance and requires a Theatre for Gamers to distinguish between participation and game-play. A Theatre for Gamers does not seek to create opportunities for participation in the work of its practitioners but instead it invites audience members to enter a designed structure for the duration of the experience. This also impacts upon concepts of immersion in performance. A Theatre for Gamers does not only aim to immerse its audience members through absorption and transportation (to use Machon's terms) but also requires that the audience members develop meaningful relationships between their own actions (praxis) and the actions of the components in the experience. Representational universes or story-worlds can be developed by designing cybernetic, productive and narrative feedback loops. Doing this in physical and public spaces offers an opportunity for a Theatre for Gamers to challenge issues of hyper-reality and extend the culture of gaming beyond the digital sphere.

In terms of the impact on audience members at a Theatre for Gamers, the aim for practitioners is to create within them a state of flow with the possibility for challenging or changing behaviour through this state. Furthermore, a Theatre for Gamers acknowledges its audience members' innate playfulness and ability to recognise ludic activities and, therefore, the design and presentation of a Theatre for Gamers should aim to motivate its audience members to a playful state. McGonigal's four qualities of gamers (urgent optimism, blissful productivity, social fabric and epic meaning) should also be encouraged in audience members at a Theatre for Gamers. An opportunity for generating such qualities exists (alongside the implementation of ergodic design, representational universes and interactive feedback loops) in the use of genre fiction that evokes make-believe in the audience members at a Theatre for Gamers. Finally, practitioners of a Theatre for Gamers should consider creating work for groups who

might not usually play games and challenge existing ways of experiencing culture and art. To achieve this, they could consider forming inter-disciplinary collaborations that can create a space for debate around engagement with different arts practices. They can also consider developing work in the public space in attempt to generate the 'social fabric' or play communities that can continue to support, develop and maintain a community of Theatre for Gamers.

To return to the three philosophical texts at the beginning of this chapter, I argue that a Theatre for Gamers (as described above) responds to (and develops upon) the points made in these texts from a twenty-first-century game-playing perspective. Drawing upon gaming concepts such as ergodic design and interactive feedback loops offers an opportunity to answer Rancière's call for a 'different theatre' whilst, at the same time, creating the possibility for a theatre where audience members have the capacity to know and the power to act. The repositioning of audience members and the subsequent recalibration of their relationship to practitioners, performance work and each other, responds to Hegel's dialectical study of identity and self-consciousness. In a Theatre for Gamers there is a possibility for 'recognition' by other humans that is prevalent across physical gaming culture. Finally, Csikszentmihalyi's concept of flow can be the outcome of developing a theatre where audience members become active within ergodic designs and interactive systems, whilst also gaining awareness of their notion of 'self' within a larger active group.

In the next chapter, I will describe how I have applied such principles to the development of five approaches for practitioners of a Theatre for Gamers. From the practice I have created and collaborated on, I will analyse these five approaches in terms of effectiveness and application.

Chapter Four: Creating a Theatre for Gamers

This chapter is divided into two sections. The first section will present the five approaches I have developed for making a Theatre for Gamers and the second section will present an analysis of the productions I have created and collaborated on in relation to the five approaches.

4.1 **Developing a Theatre for Gamers: Five Approaches**

The findings of this research project are presented as approaches that can guide the theatre practitioner who wishes to create a Theatre for Gamers and engage a game-playing audience. It can also act as a guide for the game designer who wishes to develop their performance practice. It may be the case that these approaches also have wider philosophical and ethical implications and this thesis will conclude, in Chapter Five, with signposts for future research.

This chapter introduces five approaches for creating a Theatre for Gamers: The Ergodic Approach, Story-worlds, The Emotionally Engaging Tutorial, Playful Communities and Repurposing. By applying these approaches to the four pieces of practice that I will describe here, we can see some of the effects and possibilities of this new form of practice. The application of the Ergodic Approach places audience members in the centre of an experience and allows them to develop a sense of agency that moves them into positions of knowledge and power within live performance. The development of Story-worlds, which facilitate interactive feedback loops, has the ability to acknowledge audience members existing knowledge of themes, narratives and events, therefore enabling them to maintain their central positions within the experience. Emotionally Engaging Tutorials help communicate often complex rule systems and objectives in a way that engages the audience members and fuels their ergodic activities. Engaging with or creating Playful Communities can aid in the development of this work and have social impacts in public spaces. Repurposing

technologies, existing game mechanics, history, culture and public space can make playful experiences accessible to active and non-spectating audiences.

4.1.1 **The Ergodic Approach**

This first approach to making live work for gamers is inspired by theorist Espen Aarseth (1997) and game designer/academic Eric Zimmerman (2003). This approach argues that a shift in the focus of action and activity (from performer to audience) is required in a Theatre for Gamers and it seeks to move spectators into more central positions of influence, with the designers, writers and performers facilitating interactive experiences for them.

Games are ergodic texts and they hold a configurative quality. To navigate games players are required to learn control systems, constraints and affordances that require more effort on their part than more interpretative mediums such as television, film or watching plays. This 'non-trivial' effort (see Aarseth, p.48) places players in a position where meaning can be garnered. For gamers in a digital landscape, this resonates with Prensky's notion that digital expectations dictate that, 'what you get is worth the effort you put in' (Prensky, 1998). In games this 'effort' often takes the form of learning (including control systems, new abilities, navigating virtual or physical landscapes and learning new behaviours) and gamers understand that games offer a 'payoff' (in terms of narrative reward or communication of success) in return for this effort. The quality and impact of this payoff formulates the gamer's interpretation of these experiences. Ergodic theatre, therefore, sees the audience member shifting position from spectator to actor (from third person to first person) and they are required to do more than observe. This approach develops notions of participation in performance by offering a shift in the design of the experience for audience members.

The following diagrams offer a representation of this shift. This model (see figure 6) shows live work where there is a separation both in terms of space and action, between the performer and audience members.

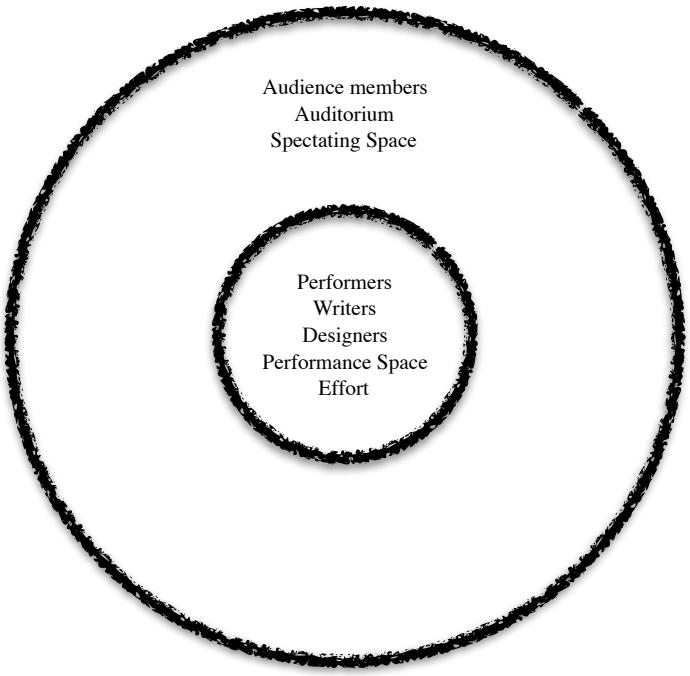

Figure 6: Model for conventional performer and audience relationship

In this model the audience members are peripheral to the action and the experience for them is non-ergodic, as the 'effort' to generate meaning is delivered by the actors, dramaturgs, directors and technicians. In the central circle, it is the practitioners who research, devise, rehearse and perform the experience, whilst the audience members spectate these efforts from the outer circle. This research does not seek to undermine this model but instead argues that this model is in conflict with the interactive- and agency-based expectations of game players. There is a plethora of live work that follows this model (figure 6) and my research seeks to highlight the need for new work that engages this new game-playing audience. *The Drowned Man* (2013) by Punchdrunk follows this model despite being described as immersive and interactive. In this experience the audience is positioned on the periphery of the action and occupy the outer circle described in figure 6. They are invited to move around the space and

explore the aesthetics of the set and props but the effort required to engage with the experience reflects Aarseth's 'trivial effort' (1997). The same could be said for the audience experience in *In The Beginning Was the End* (2013) by dreamthinkspeak as the audience members are again on the periphery of the action even though they actively move through a space. My research argues that notions of promenade theatre (or audiences moving through a space) are not effective, by themselves, in engaging the expectations of a game-playing audience, as described by McGonigal and other practitioners in Chapter Three. Although the physical experience might be different to a more conventional seated audience, the model of an audience peripheral to the action and narrative still applies in such promenade work. This criticism of promenade or spectator-based performance does not reflect certain aspects of Rancière's argument. For instance, Rancière suggests that:

> The spectator also acts, like the pupil or the scholar. She observes, selects, compares, interprets. She links what she sees to a host of other things that she has seen on other stages, in other kinds of place. She composes her own poem with the elements of the poem before her (Rancière, 2009, p.13).

However, the actions listed by Rancière here are not ergodic, as described by Aarseth. Observing, selecting, comparing and interpreting in spectator-based performances do not require audience members to learn a formal system of control nor do they function as actions within an interactive feedback system. 'Heightened viewing, whereby spectators at (for example) multimedia installations, promenade performances and sports matches can experience themselves in the act of watching' (Lavender, 2016, p.135) are also non-ergodic actions since they privilege the 'act of watching' and not the act of doing. Such actions are interpretive and not configurative and it is this difference that a Theatre for Gamers wishes to highlight through The Ergodic Approach.

Participatory performance can demonstrate how we might answer Rancière's call for a 'different theatre' in a more literal way. As Lavender suggests, Rancière can 'exhort us to participate rather than spectate, act rather than watch'. A visual model to represent participatory theatres or 'immersive' theatres might look like this (see figure 7). Notice how in this model the divide between the audience and narrative action is still present but offers openings for participation to the audience who can move into the centre circle. Audiences may shift from their position of spectatorship into action, as well as moving through the physical space itself, yet the 'subject-object' divide, as described by White (2012), still exists. However it is the case that the potential for interactivity (as described by Crawford, 2012) can occur in this type of work. The cyclical process of two or more agents listening, thinking and speaking is represented in immersive and participatory performance with actors and audience shifting positions and sharing the central circle of action. Audience members have the opportunity to offer actions and behaviours to the performers and the performers have the opportunity to respond free of formal staging and direction. In this model, both parties share a degree of creative agency yet there is no formal control system or interactive feedback loop to sustain agency for the audience members.

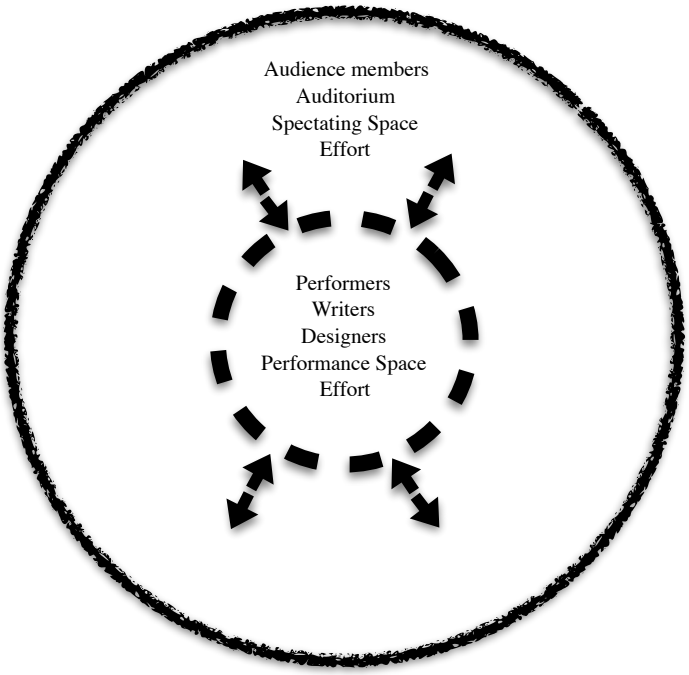

Figure 7: Model for participatory theatre performer and audience relationship

A game model can be visualised thus (see figure 8):

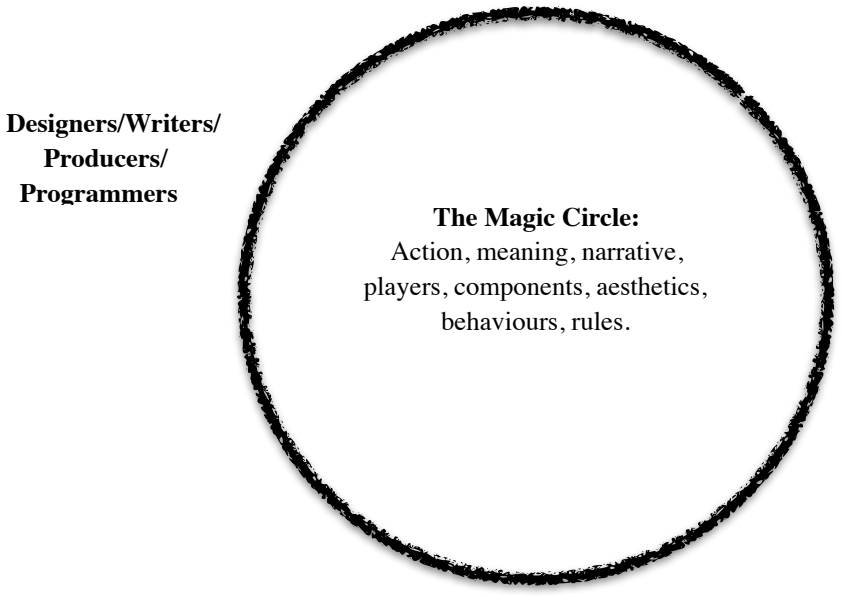

Figure 8: Model for games

This model is the magic circle as described by Huizinga (1938). Here the practitioners are positioned on the edge of the action (both in terms of space and narrative) with the players central to the experience along with the narrative, action and components (such as controllers, props and performers). Therefore, by combining such performance models with the gaming model of the magic circle, The Ergodic Approach can be represented thus (see figure 9):

Figure 9: Model for ergodic theatre/Theatre for Gamers

In this model the audience members become central to the action by generating their own narrative of the event through ergodic effort. They achieve this through learning new skills and applying those skills to navigate the experience. Performers, practitioners, programmers and technicians become the facilitators of the experience for the audience members, who initiate interactive systems and communicate the relevant knowledge required to the audience members. This shift affects all aspects of the process of making Theatre for Gamers including the writing, performing, devising and presentation.

There are existing examples of an emerging 'ergodic theatre'. One manifestation of ergodic practice in the work I have attended can be seen in the trans-media elements offered in the work of Secret Cinema, Winterwell and Moonstruck Me. Each of these companies extends the narrative world of their live events via the use of digital tools that require audience members to engage in activity that is not usually associated with building-based performance. Such activities include social media interaction, web searches, digital photography and online registrations.

In *Peel Park Asylum* (2014) by Moonstruck Me the audience member experiences a first-person perspective of a patient admitted into a strange and unnerving psychiatric hospital. Each audience member is required to undergo an online application process to gain their appointment with the fictional Dr Adams in the asylum. A number of emails are sent to the audience members requiring certain actions and pieces of information. One such action is that the audience members are required to send Dr Adams (and her staff) a digital photograph for their new identity cards during their time in the asylum. These photos are then used by the performers in a series of events in which the audience members, who have a solo experience, are subjected to actors wearing life-size printed masks of their own face (that is the audience member's face) in an attempt to explore narrative themes around insanity and madness. It is

possible not to send in a photo and not have this experience, and this again resonates with Prensky's notion that what you get is worth what you put in. If you do not send in your photograph, then a random face is used at this point and you do not experience the reflection of yourself, you do not experience yourself in the 'act of watching' (see p.118).

In Secret Cinema's *Back to the Future* (2014) a whole narrative world is portrayed using a series of websites and emails that give detailed information to the audience about their upcoming trip to the Hill Valley Fair in 1950s America. Audience members are offered an array of opportunities to engage with the world of the event before the event itself takes place. Such opportunities include registering yourself with the Hill Valley social services and attaining an identity card (giving you a new name) as well as invitations to prepare certain objects, props or pieces of clothing that will help you fit in when you visit Hill Valley. Again much of this is optional but in this case the notion that the effort you put in is worth the experience you get back can be criticised from a game design point of view. Not putting the effort in here (by not bringing the described props and costumes) does not affect your experience of the piece and I noted a few audience members on leaving the live experience comment on how they felt the effort they had put in to find all of these props and objects ultimately felt meaningless, as it was not acknowledged during the event (noted on 9 August, 2014).

In *Wilfred Bagshaw's Time Emporium* (Winterwell, 2013) again the use of emails and websites is deployed to extend the narrative world before and after the live experience itself. However, in this example the use of trans-media does not ask for effort in the ergodic sense (more than trivial effort) but instead prepares the audience for the ergodic nature of the live event they are about to attend. The communications sent via email from the time travelling character, Wilfred Bagshaw, are preparing you for the mission you are about to embark on.

The use of trans-media here is positioning you at the centre of the circle (as described in figure 9) before you arrive, so that when you arrive you are equipped with some of the information you need to navigate the experience and complete the task at hand.

A spectrum of engagement in this work resonates with the idea that what you get out is worth what you put in. This is not to say that one experience is superior, more valid or more valuable than the other but instead suggests that ergodic theatre can operate on a spectrum that offers audience members different positions within the circle of action. However, we can consider again the concepts offered in Chapter Three from game design theorists such as McGonigal and Zimmerman. Although action can be offered on a spectrum (not all audience members to this work will be gamers), McGonigal tells us gamers like to work and put lots of effort in, and when referring to Zimmerman we are reminded that the action — no matter where it might be situated on a spectrum — must be meaningful within the context. *Wilfred Bagshaw's Time Emporium* demonstrates examples of this. For example, when characters from different factions approach you with various missions to complete, audience members are able to attach meaning to those missions since they have been given the overall game objective of infiltrating a faction, gaining their trust and exposing their possible murder plot. The interaction between performer and audience member is connected and the effort required from the audience member, no matter how successful, impacts on the emerging narrative of the experience.

The Ergodic Approach in a Theatre for Gamers is realised through any design choice that places audience members in the centre of the experience in terms of their physical location and their position to the narrative. It equips them with the relevant knowledge or skills that allows them to utilise the work's formal system of control to navigate the experience.

4.1.2 **Story-worlds**

The second approach concerns the creation of live narrative that meets the expectations of gamers. It is inspired by a combination of approaches offered by game designers/academics Jane McGonigal (2011) Chris Crawford (2005) and Rune Klejver (2002) and instructs practitioners to shift their interest in designing linear, plot-driven narratives (or performance works) to more lateral and open narrative worlds that involve epic themes and qualities. The second approach is a product of engaging with the first approach (The Ergodic Approach).

Crawford's concept of the story-world develops the Ergodic Approach in that to navigate a story-world, players must learn controls, skills and behaviours in order to generate meaning from the experience. Even though some contemporary theatre work (that places the performers at the centre of the action) may deliver non-linear story lines, the experience for the audience, positioned on the periphery of the action, is still often linear and didactic. *Wilfred Bagshaw's Time Emporium* offers an example of how to construct a story-world in a live experience. In this piece, once the audience members have travelled back in time to the medieval English town, the physical and narrative space is divided into a series of sub-stories that could all be expressed as a sentence (Crawford, 2005). There is the local tavern with two sisters and their father who appear to have dark secrets that they protect, the military faction whose allegiance and future intentions are unclear, the aristocrats who enjoy luxury at the cost of the peasants, the church that is shrouded in secrecy and dogma and a variety of townspeople who run local businesses each with a particular interest in other characters' lives, local issues or the wider politics of the story-world. Each of these sub stories offers the players 'dramatically significant, closely balanced choices' (Crawford, 2005) as their main objective is to decide which faction will attempt to murder the historical figure (John

O'Gaunt) during his upcoming visit to the town. When they have decided who they think is hatching the plot, the players must attempt to infiltrate that faction and stop them from radically changing the historical timeline. These 'dramatically significant' choices resonate with McGonigal's notion of 'epic meaning', as well as Zimmerman's emphasis on meaningful action. The audience members are given responsibility of an epic theme, the timeline of humanity, and their actions have a direct impact on this narrative. If they do not succeed, all of history will be changed and a direct link is drawn between this narrative idea and their actions within the experience.

However, this does not mean a degree of linearity and plot development is not required or used in games. One of the aspects of sandbox and open world computer and video games is the use of linear and plot-driven tutorials that then lead into the open world experience. During such tutorials (described in Chapter Three, p.49) there is often less agency afforded to the player in order to allow them to accumulate and learn the knowledge they will need when the game world does open up. *Wilfred Bagshaw's Time Emporium* deploys a similar technique by beginning the live experience with a short linear performance from one of Wilfred's assistants, where your mission is reiterated to you and the equivalent of your control system (including health and safety instructions, encouragement to go up to the actors and ask questions and the importance of keeping your twenty-first century technology and true identity hidden from the inhabitants) is explained to you. A visual representation of this model could look like this (see figure 10):

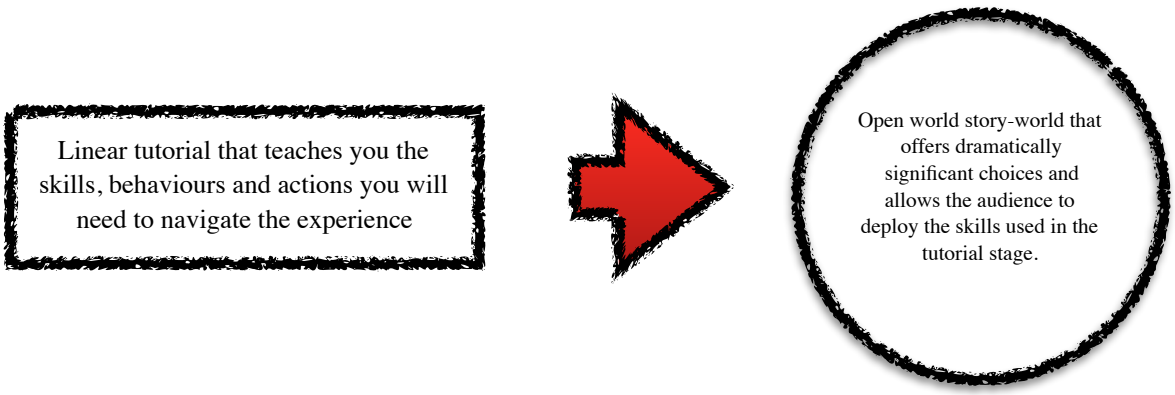

Figure 10: Model for linear tutorial to open world

The foundation of story-worlds is agency and this is afforded to an audience when the work requires decision making and can be understood as ergodic in nature. Audience members should also feel as if they are adequately equipped to navigate their experience and make those decisions. As discussed in Chapter Three, the use of a recognisable genre is one technique in creating a story-world but I argue that audience members in a Theatre for Gamers should be connected to that genre via the control system and their actions or decisions. To achieve this, interactive feedback loops (whether cybernetic, productive or narrative) can be applied to facilitate the decision making process in story-worlds and form relationships between audience members and the components of the experience. Some of the live work I have attended may succeed in creating some of the aspects of story-worlds but often fails to offer agency to the audience exploring them — through a lack of interactive feedback loops. *Peel Park Asylum* (2014) does build the sense of an exaggerated and surreal asylum, partly due to the narrative approach, use of trans-media and appropriate setting (a university building resembling a 1950s hospital), yet it does not give the audience member any sense of agency over that world. It is the case that the audience member occupies the central circle of action, with the actors and technicians facilitating the audience's role as protagonist and there is a recognisable genre (reminiscent of horror films set in asylums) that allows the audience member to engage with the narrative. However, key decision making is

not given to the audience member. For example, they cannot choose which part of this story-world to visit when they want and there are few 'dramatically significant' decisions for them to make. In computer and video gaming, this is frequently a criticism of games that put the players 'on rails'[23]. *Peel Park Asylum* is similar to this notion of an 'on rails' experience. The lack of a narrative feedback loop in performance works such as this, leaves the audience members disconnected from the story-world depicted and, as previously discussed, a Theatre for Gamers requires audiences members to be connected to all components of a story-world — including narrative.

To summarise, the development of a story-world in a Theatre for Gamers requires practitioners to design for the possibility of emergent narrative whilst also engaging with themes or narratives that are recognisable to the audience members. Designing interactive feedback loops, which offer a series of dramatically significant choices in a story-world, creates a unique experience of that story-world for the audience members. Instead of being told a story you are instead producing one yourself. As Crawford tells us:

> The key realisation is that a story-world is a much larger creation than a story. This makes perfect sense when you realise a simple theorem about story-worlds: A single playing of any story-world generates a single story. In other words, when a player goes through a story-world, he produces a story (Crawford, 2012, chapter 3, para 9).

In conclusion the concept of a story-world for a Theatre for Gamers comprises of the ergodic approach, the implementation of interactive feedback loops, an engagement with recognisable narratives (or themes), a linear tutorial that leads into an open world experience and the possibility for emergent behaviour through the production of an audience member's own version of a narrative.

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[23] 'An on-rails game behaves much like a train: while sometimes the player can choose which path he goes down, he cannot deviate from it. Sometimes on-rails games even go so far as to decide when the player moves.' http://www.giantbomb.com/on-rails/3015-169/

4.1.3 **The Emotionally Engaged Tutorial**

Applying the Ergodic Approach and developing story-worlds requires a technique that will build relationships between audience members and components of the piece. In a Theatre for Gamers, not only do the audience members need to understand what is required of them and what opportunities they are afforded, they should also feel emotionally connected to their actions and decisions in their experience. Interactive feedback systems will maintain and develop such relationships but to emotionally engage the audience members, a Theatre for Gamers requires an emotionally engaged tutorial. This third approach offers a method for creating a situation where players in live games are emotionally involved in the actions they are invited to perform within the story-worlds they inhabit. It was largely inspired by my experience of playing both live and digital games and fusing these with my own performance style and practice. This approach offers a vehicle to communicate the main information about the experience (instructions, affordances, story-worlds and objectives) whilst at the same time encouraging audience members to attach meaning to their actions.

During the festival *Playpublik* (Berlin, 2012) I played the street game *Starry Heavens* designed by Eric Zimmerman and Nathalie Pozzi.

The game is described as thus:

> A single player is the Ruler, who stands in the centre, calling out "BLACK," "WHITE," or "GREY" — the three colours of spaces on the grid. Other players move in unison to the colour that is called, trying to banish each other, make it to the centre, and depose the Ruler. The players dance around the Ruler in what looks like a stylised waltz, everyone stepping together when a new colour is called.

> Each time the Ruler calls a colour, she pulls a large central balloon down one more mark, literally bringing it to earth as the game is played (a physical feat that becomes more challenging the more the huge helium balloon is pulled down). The ruler tries to touch the balloon before another player becomes the Ruler, at which point the balloon rises up again. But the Ruler virtually never wins (Zimmerman, 2012, para. 2-3).

Figure 11: *Starry Heavens*, Eric Zimmerman, Nathalie Pozzi Playpublik, Berlin 2012

The physical presentation of this game (see figure 11) created a captivating and curious atmosphere. The shape of the pattern on the floor together with people moving along the lines with strange gestures was compelling, the large helium balloons were impressive and theatrical and there was also a local folk group improvising live music in response to people playing the game. There was a sense of a story-world here for me to explore. It was at this point that Zimmerman approached me and the people I was with to explain the rules on how to play. The rules were explained to me by Zimmerman in a similar manner to the way he explains them on his website (see above). However, the explanation of the rules was separate from the interesting and aesthetically engaging world the designers had created. The presentation of the rules were functional in nature and had the effect of breaking down the sense of story-world that the other elements were creating.

This has been a convention in game design for many years. Board games, for example, have often offered functional instruction manuals detailing the rules and how to play the game. Computer and video games have often included printed instructional manuals or perhaps offered a screen shot of the joystick/joypad/keyboard with details about the controls. More recently, however, there is a new phenomenon in the design of tutorials in computer and video games that forms the basis of the emotionally engaged tutorial approach. Some computer and video games have started to embed their tutorials into the narrative arc of the game, resulting in players learning the skills that will be necessary to navigate the game but also attaching meaning to their actions through an emotional engagement of the narrative. An example of this is in *Dishonoured* (Arkane Studios, 2012). During the opening scenes in *Dishonoured*, players controlling the protagonist character 'Corvo' learn a skill that will be vital to their success in the game. This skill is that of stealth and involves learning how to make Corvo sneak, hide behind corners, move quietly or hide all together. Each of these actions is produced by manipulating the joypad in a particular way. However, the explanation of this mechanism and control system is not explained to the player in a functional way. Instead the players are invited to play a game of 'Hide and Seek' with the character Emily Kaldwin, who is the young daughter of the empress who Corvo works for and is loyal to. The act of playing this game with Emily, together with the dramatic dialogue that accompanies the action (Emily frequently tells you how much she enjoys spending time with Corvo and has a lot of fun), emotionally engages the player with the character whilst also teaching them a vital skill for the rest of the game. Moments after this emotionally engaging tutorial, players witness Emily's mother (the Empress) get murdered in front of her and then she is abducted by the antagonist of the story. The player's character, Corvo, is then framed for murder and kidnapping and becomes a fugitive who is on the run from the state and the villain. The skill that the players have learned suddenly takes on a deeper meaning and in order to save Emily they will have to deploy and master the skill (in combination with other skills) that Emily has

just helped them learn. This means that the learned skill of stealth is not just something you can do in the game but it becomes something you can do in the game to save Emily and clear your name. An emotional engagement with the learning of an action can give it greater meaning within the context of the game. Instead of being just a functional activity, the use of narrative to provoke players' emotions in a tutorial can allow you to attach meaning to your actions.

Therefore, a Theatre for Gamers requires an emotionally engaging tutorial that will equip audience members with the skills and information they need to navigate the story-world but will also encourage them to develop an emotional attachment to their chosen actions. An emotionally engaged tutorial sets up a narrative feedback loop and deepens the sense of agency for audience members at a Theatre for Gamers.

4.1.4 **Play Communities**

The fourth approach, Play Communities, focuses on the relationship between audience members and practitioners, as well as that between practitioners from different fields. It is inspired by both the work of Bernie De Koven (2014) and the interviews undertaken with Invisible Playground and Focus. It explains the importance of inter-disciplinary collaboration in this type of work and how game design and digital technologies can aid in the development of communities of players and practitioners and, therefore, future practice.

The computer and video game industry employs a multidisciplinary range of practitioners, including computer programmers, sound designers, graphic artists, writers and performers. A Theatre for Gamers should also consider such an inter-disciplinary approach. Converging cultures in the digital sphere utilise a range of social media and networking platforms to

maintain a range of different professional relationships and collaborations. Practitioners of a Theatre for Gamers can also develop multidisciplinary projects in this way. The work described in Chapter Three has seen international collaborations between game designers, architects, computer programmers, visual artists and theatre practitioners and the practice I will describe later has also developed similar collaborations.

Using social networks is one method to form and maintain such relationships but also the festival culture of urban gaming (taking place in Germany, Denmark, UK, Poland, Italy and Netherlands) allows these relationships to develop and flourish. Attending these events as both player and practitioner allows people in this community of practice to share skills, knowledge and experience whilst also inspiring new collaborations and possibilities for new types of experiences. Theatre and performance, even though it is the focus of this research project, cannot be the focus of such a play community because it is one strand of a larger network of people all creating work that can be defined as play. The Play Community approach directs theatre practitioners to engage with the various play communities that exist and are growing. More specifically, theatre practitioners wishing to explore this area should seek to attend similar festivals described in this project, play as many social, computer/video or 'new new' games (see p.22) as possible and seek out as wide a range of interdisciplinary practitioners as they can to form collaborations with. A Theatre for Gamers is not theatre just for theatre audiences, and so it should explore the world of game and play also.

In Chapter Three, I described how Naseem (Copenhagen Games Collective) expressed her interest in finding ways to cultivate not only a game playing audience but also a game making

audience. This is pertinent when considering the notions outlined by De Koven and our innate playfulness (2014). If we can all play then perhaps we can all make play too. To achieve this goal, the Playful Communities approach suggests two things. Firstly, game design workshops can be integral to the process of making this work, with the possibility for collaborations between professional and non-professional game designers and artists. Secondly, projects can see participants enter the design process such as, previous game players, members of the public or other designers who can contribute to the design process and the play-testing stage of development.

For practitioners of a Theatre for Gamers, I refer back to Ehmann and his two suggestions in Chapter Three (see pp.107-108). Practitioners of a Theatre for Gamers should attempt to make work for specific groups who do not ordinarily engage with games and also take an interest in generating playful communities within the public space. As McGonigal has suggested (see p. 100), gamers are effective at weaving a social fabric, and this skill should be acknowledged both in the development and presentation of a Theatre for Gamers.

4.1.5 **Repurposing**

Inspired by elements of the digital native/digital immigrant theory outlined by Marc Prensky (1998), as well as acknowledging its roots in the Situationist International movement, this final approach explains how existing technologies and game design practices can be (and should be) used in the creation of Theatre for Gamers. The Repurposing approach enables practitioners to access tools, methods and technologies that can aid in the creation of ergodic

practice, interactive feedback systems, the creation of story-worlds and the development of playful communities. This approach encourages practitioners to repurpose a range of existing technologies, practices and cultural assets towards the objectives of a Theatre for Gamers.

Repurposing is a popular activity in digital culture. There is a range of cultural, technological and performative activities produced by utilising existing forms, technologies or practices and reinterpreting, exploiting and using them for new purposes. One example is provided by the lip-sync videos created by YouTube users where young people re-create bedroom performances of their favourite pop songs by overlaying original audio tracks to their synced video-recorded dubbing performances. In this activity, these bedroom performers are repurposing video and audio editing technologies as well as the original music tracks that they have downloaded. A further example, from the field of video games, is machinima[24]. In this practice, 'machinimists' repurpose existing video game software in the creation of new content that can reinterpret the existing material or even create entirely new narratives. When reconsidering Prensky's digital native argument, concerning this notion that digital people consider 'technology as friend' (see p.8), we can see why such practice is appealing to these people.

The Repurposing approach in a Theatre for Gamers can be understood and applied in three areas: technology, game design and public space. Repurposing does not mean copying or reusing. Instead, this approach suggests that we take existing technologies, game mechanics or features of public space and develop upon them for the purpose of building our story-world

[24] 'Machinima is the use of real-time computer graphics engines to create a cinematic production. Most often video games are used to generate the computer animation. Machinima-based artists, sometimes called machinimists or machinimators, are often fan laborers, by virtue of their re-use of copyrighted materials.' *Machinima*. (2017). *En.wikipedia.org*. Retrieved 22 February 2017, from https://en.wikipedia.org/wiki/Machinima

and ergodic approach. Existing technology can be repurposed for a number of reasons. Firstly, there is a gap in knowledge between theatre practitioners and computer programmers (and hardware developers) and so for practical and accessibility reasons it is appropriate to utilise existing and off-the-shelf consumer technologies. Secondly, existing technology is in the public psyche and is easily recognisable by the audience members invited to the piece, since they often come prepared with the knowledge of how to use the technology. Using existing game mechanics, which are often inspired by the types of games we played as children, allows players to understand quickly what is required of them in order to navigate the experience. This means that in the tutorial sections of a Theatre for Gamers less time needs to be spent describing how the game mechanics work and more time can be spent on developing emotional attachments to these actions that engage the players in a meaningful experience. However, although such game mechanics are accessible, the development of new game mechanics can add layers of complexity that require careful attention in the design of tutorials. A Theatre for Gamers should see all game mechanics carefully integrated into the story-world so as to avoid confusion and a collapse of the relationships maintained by the interactive feedback systems. Finally, there are two ways in which a Theatre for Gamers can repurpose the public space and each relate to the development of story-worlds. Site specific games can reinterpret specific places and allow story-worlds to be developed that are specific to those sites. Site sympathetic games, which are games that do not acknowledge a place's specific history or context (White, 2012), instead attempt to build playful worlds that acknowledge the relevant issues facing the public who use those spaces.

4.2 **A Theatre for Gamers: Practice**

In this section I will take each project in turn and analyse them in relation to the five approaches I have described in the first section. The Prezi file included on the DVD data disk of this thesis will be useful for readers to refer to the specific examples of my practice that I

will link to in this analysis. I have also included the video files of the practice in a separate folder on the DVD data disk in case readers cannot access the embedded videos in the Prezi file. I will describe each piece in detail covering production dates, locations, collaborators and my roles within the projects, as well as examining the application of my five approaches in this work. I will also give relevant examples that demonstrate the effectiveness and challenges of implementing my approaches for creating a Theatre for Gamers.

4.2.1 **Hacked Off!**

Hacked Off! was a project I developed with The Larks over 2011 and 2012. The intention was to create an urban game that engaged with the issues surrounding the infamous newspaper hacking scandals in the British tabloid media. My roles in this project included performer, co-writer and co-designer. My fellow collaborators were Vee Uye, Andrew Crofts and Patricia Coleman. The initial idea for the game was developed by Vee Uye and saw its first play-test at an event at Contact Theatre, Manchester in 2011. Following that we developed the game for several other events across the UK during 2012-13 including, *Watch This Space* for National Theatre London, *Hazard Festival* in Manchester, and *Lock-In Festival* in Sheffield. The game was also taken to *Playpublik*, Berlin in 2012.

The Ergodic Approach in *Hacked Off!* was applied in the positioning of the audience members in the experience, the creation of knowledge and skills for the audience members to learn and the development of a formal system of control that enabled the audience members to navigate the work. *Hacked Off!* placed audience members in the centre of the experience by inviting them to apply for a new job with a fictional newspaper company called ‘The Daily Hack’. I played the role of the nameless and unscrupulous ‘Editor’ who would be conducting this interview process and Patricia Coleman played the role of ‘The Secretary’, an assistant to

‘The Editor’. The audience members were each cast as hopeful tabloid journalists who each shared a passion for joining ‘The Daily Hack’ newspaper and beginning their careers as journalists who obtain their news stories by hacking phones. The video in the Prezi file (under *Hacked Off!)* demonstrates at several points Patricia and I in these roles at the beginning of the interview process. The interview process included a role-play activity that was designed by ‘The Editor’ to test the interviewees’ abilities in uncovering frivolous news stories about celebrities and public figures, whilst at the same time keeping secrets of their own. As the Ergodic Approach dictates, in *Hacked Off!*, the audience members were centrally positioned within the experience, with the game designers and performers peripheral to the main action. *Hacked Off!* was not designed to communicate a story about the relationship between ‘The Editor’ and ‘The Secretary’, nor was it designed as a vehicle to communicate the performers and designers views on the relevant issues to a spectating audience. Instead, the focus was on positioning the audience members in a manner that could allow them to explore the issues in an ergodic way and produce their own experience within the structure that we had provided. The narratives that emerged were various and not dictated by the performers or designers. Examples to illustrate this can be seen in the ‘testimonies’ given to our fictional version of the Leveson Inquiry, which we recorded from the audience members at the end of the experience. One audience member described how in her experience of *Hacked Off!*, she managed to protect her secrets by escaping the other players who, ‘ganged together, Hunger Games style’ and forced her to run away and protect her secrets (*Hacked Off!,* 2:41), whilst another player, in the same game, admitted that he ‘was rubbish at it’ and ‘got pinned three times’ and ‘didn’t get anything’ (*Hacked Off!,* 3:09).

The Ergodic Approach also dictates that audience members should be equipped with enough knowledge and skills to allow them to navigate the experience via a formal system of control.

The formal system of control in *Hacked Off!* attempted to emulate the telephone hacking processes used during the infamous scandal by inviting the interviewees to seek out mobile phones (attached to public furniture) and make a series of calls in an attempt to uncover news stories. Added to this, was the pressure of not getting caught using the phones by other interviewees, who could expose their rivals by 'pinning' unwanted headlines to them that were represented by wooden clothes pegs. We can see 'The Editor' and 'The Secretary' equipping audience members with this knowledge (*Hacked Off!,* 5:21). This process of describing the formal system of control takes place before the action of the game commences since the Ergodic Approach requires the audience members to be fully prepared to navigate their experience.

The story-world created in *Hacked Off!* was an exaggerated version of the journalistic environment surrounding the infamous hacking scandal and the subject of the UK public enquiry by Lord Leveson. This story-world was set up by an introduction to the world performed by Patricia Coleman and myself. By adopting arrogant tones of voice, appropriate costumes and simple visual cues (such as an empty bottle of Gin and a news desk), we outlined the genre and topic of this piece of work for the audience members. Being a popular news story for the past four years meant that audience members in this experience began the game with some existing knowledge that informed their behaviour within the game. Trying to catch other audience members hacking mobile phones whilst not getting caught themselves, all in an attempt to impress the headstrong editor of 'The Daily Hack', was all resonant with their pre-existing knowledge of the topic. Evidence of this can be seen in the emergent narrative that resulted from some of the 'testimonies' given to our fictional version of The Leveson Enquiry. For example, the player who had claimed to have been to 'journalism school' and taken the 'hacking course' (*Hacked Off!,* 2:16) was eliciting satirical and sarcastic

behaviour based on her pre-existing knowledge of these events and this behaviour had emerged out of her experience of *Hacked Off!*. Similarly, the player who repeatedly stated 'I couldn't possibly comment' (*Hacked Off!,* 2:29, 3:07 and 4:00) was also expressing her existing knowledge of our story-world in a satirical way.

Such responses in audience members are also a result of developing an emotionally engaging tutorial. In the original version of *Hacked Off!*, the designer of the mechanics and rules of the game (Vee Uye) would explain the rules without setting up the story-world or emotionally engaging the audience members during the tutorial. Here is an excerpt from an early version of the script used to present and run *Hacked Off!*:

> Your aim is to obtain more stories on the opposition than they have on you. Each pair will receive three pieces of information to hold dear to your hearts — these are **Stories** which if revealed become published, revealing you at the centre of a series of events you'd rather not be associated with.
>
> For PIs these are stories of hacking activity, questionable reportage and compulsive behaviour, which if revealed will damage your journalistic reputation for discretion and good taste.
>
> For Celebrities these are stories of secret affairs, illegitimate children and closet addictions, which if revealed will damage your reputation amongst your adoring public.
>
> Stories are obtained by the opposition through **Hacks** and **Leads**.
>
> Hacks are calls to **Call Points** dotted around the area. There are 8 Call Points throughout the playing space, and they are marked up like this (show example). Their numbers are detailed in **The Little Black Book**. To make a Hack to Call Point, dial a number and if it is answered, shout 'Hacked Off!' to which the opposition must reveal one of their stories in full.
>
> All ringing phones must be answered by declaring your team name, 'e.g. Team Oscar'. If the caller shouts 'Hacked Off!' you must reveal a Story, but equally a ringing phone could also produce a Lead. If you don't produce a Story upon request, you will be reported to the **Police** for failure to comply with the Constitution of Hackers.
>
> Leads are call to Call Points from anonymous callers giving you information, from which, together with a little imagination, you may be able

> to work out the full Story it relates to.
>
> However, discretion is of utmost importance, as if you are caught Hacking or receiving Leads by fellow players you may be Pinned. Each player receives a series of Pins to Pin stories to the opposition.
>
> At the end you must give up all your stories to the press. A point will be given for each accurate Story and deducted for each Pin; the pair with the most points wins. Stories will be checked alongside Leads and any incorrect stories will be declared **Slander** and will not be counted (*Hacked Off!* script and notes, see Appendix).

Notice how these instructions are fairly functional and presented in a similar fashion to Zimmerman's *Starry Heavens*. However, these instructions are quite complex and there is a lot of information for the players to learn and then find meaning in. As the story-world depicted in the game is focused on the lurid world of illegal phone hacking journalism, I suggested that we frame these instructions using a pertinent narrative and this resulted in the idea of placing the audience members at a job interview with 'The Daily Hack'. The presentation by 'The Editor' allows players to make associations with figures from the real news story (such as Andy Coulson and Rebekah Brooks) and therefore emotionally engages the players and allows them to understand why they will be performing the actions described to them in the rules. It also enables the audience members to generate their own meaningful narrative and express their own points of view on the subject, such as the satirical behaviour previously described.

In *Hacked Off!*, the repurposing approach supported the ergodic qualities and the development of the story-world. Repurposing mobile phones and the public space had several effects. Firstly, the use of mobile phones were often easily understood by many of the audience members who experienced *Hacked Off!*, since many of our players had experience of using this type of technology in their lives. This made the formal system of control (the mechanics involving answering and making calls) accessible to the players. Furthermore, this also helped

create a representational universe that depicted the world of telephone hacking in journalism, in that personal mobile phones had been positioned within public space. The repurposing of public space in *Hacked Off!* invited the audience members to consider concerns over the private verses the public sphere and the power of the media to infiltrate both.

The play communities approach dictates that a Theatre for Gamers should consider operating in the public space and *Hacked Off!* is an example of this. By setting up 'The Daily Hack' news desk on a public street, as seen at *Watch This Space* event in London, *Hazard Festival* Manchester and *Playpublik*, Berlin, we were able to attempt to invite passing members of the public to enter our magic circle. The player in London who had claimed to have been to journalism school had actually been someone who was just passing by and was approached by 'The Secretary', who had invited her to take part in a job interview. After the game we found that some of the players had weaved McGonigal's 'social fabric' (see p.100) and had formed small groups where they were discussing the issues presented in the game and sharing their experiences. We can see some evidence of this (*Hacked Off!,* 4:03 to 4:10). In these moments we can see that a group of strangers had formed a group within the game area and were discussing their various views of the phone hacking scandal.

Finally, *Hacked Off!* engaged with various playful communities during its tour and there were several occasions where we managed to further develop relationships with other practitioners at festival events. For example, we can see game designers Eric Zimmerman, Nathalie Pozzi and Sebastian Quack (Invisible Playground) engaging with our work and this has resulted in further opportunities to engage in playful communities of practice (such as 72 Hour Urban Interactions two years later) (*Hacked Off!,* 6:44).

4.2.2 **Know Your Place**

Know Your Place was the second project I developed with The Larks over 2012 and 2013. The theme focused on issues around the British social class system and explored social injustice and unfairness in society. The intention of this project was to create an unfair game in which players could experience our perception of unfairness in contemporary western societies. My roles in this project included performer, co-writer and co-designer. My fellow collaborators were Jana Wendler, Andrew Crofts and Patricia Coleman. We presented this game at several events, including: a play-test at Contact, Manchester, 2013, The People's History Museum, Manchester, 2013, Let's Play Poznan, Poland, 2013, The Playful Arts Festival, Netherlands, 2014 and Play Vienna, Austria, 2014.

As with *Hacked Off!*, the Ergodic Approach was applied in *Know Your Place* through the positioning of the audience members in the experience, the creation of knowledge and skills for the audience members to learn and the development of a formal system of control that enabled the audience members to navigate the work. *Know Your Place* placed audience members in the centre of the experience by casting them as citizens of a fictional island (based on Britain) that saw them each take on the roles of various people across a social strata. Each role occupied one of three social classes: working-class, middle-class and upper-class. These roles were assigned randomly at the beginning of the piece where audience members had to seek out one of three hats (flat-caps, bowler hats and top hats) hidden around the public space, which signified their status within the game. In each hat, the audience members would find a bag of beans (representing the currency on the island) with varying amounts in each, a passport indicating their vocation and various other objects that they would need for their experience on the island.

Their time on this fictional island was representative of an entire lifetime and was split into three sections: education, work and retirement. Each of these three areas of life were represented as physical mini-games that included: a type of egg and spoon race for education, a bizarre version of Badminton for work (Photograph 1, *Know Your Place*) and a chase game for retirement in which players would have to visit as many places around the world as they could, whilst being chased by a non-playing performer who represented death (Photograph 2, *Know Your Place*). The objective of the experience was to gain as many beans or tokens as possible by the end of their lives on the island, with beans and tokens being awarded for successful and high quality education, a productive work life and a well travelled retirement.

The unfairness in the game was created by giving the upper- and middle-classes more beans at the start of the game, which therefore gave an advantage to these audience members at certain points in the game. For example, the education stage was represented as a form of egg and spoon race that had several different finishing lines. The first finishing line offered the audience members the chance to attend a high quality school, which, although costing more beans than the other schools at later finishing lines, would award them with even more beans to take forward into their work lives. Audience members who were in the working-classes could not attend these schools because they did not start the game with enough beans to gain access. In the work section of the game, the audience members had to try and get as many Badminton shuttlecocks to fly through a plastic hoop as they could but those audience members with enough beans could afford to buy themselves 'larger circles of opportunity', making this goal easier to achieve. The more shuttlecocks they captured through their hoop, the more beans they earned for retirement. Finally, in the retirement section of the game, the audience members were required to visit as many places as they could before 'Death' eventually caught them. Each place they visited awarded them with even more beans to add to

their total, yet each place cost a certain amount of beans to access and they could only visit certain places if they had enough beans.

At the end of the game, the total amount of beans was tallied up for each audience member and the winner was announced. The experience was for a maximum of twelve people at a time and lasted for approximately forty minutes. I played the role of the 'The Mayor' who facilitated the experience and sarcastically taunted the audience members by encouraging the working-classes to work harder and praising the upper-classes for their dedication. Other non-playing performers included the Badminton Bureaucrats who facilitated the process of hitting shuttlecocks across the workplace, the different places people could visit in retirement (Photograph 3, *Know Your Place*) and the chaser representing death. As the Ergodic Approach dictates, in *Know Your Place*, the audience members were centrally positioned within the experience, with the game designers and performers peripheral to the main action. Furthermore, to enable the ergodic qualities of the experience for the audience members, my role as 'The Mayor' was to equip the audience members with the relevant knowledge of the control system of *Know Your Place*. For instance, at the start of the game, 'The Mayor' describes the currency system of the story-world and the format of the game. Also, before each of the three stages, 'The Mayor' explains the rules and objectives of each of these three physical mini-games, so as to not overload the audience members with information at the start of the experience.

Know Your Place was not an attempt to present a narrative about unfairness and social injustice to spectating audience members but instead sought to create the experience of unfairness for audience members who were positioned at the centre of this unfair system. Our intention was to generate debate around these issues by creating a structure that could produce

emergent narrative and experience around our chosen topic. As with *Hacked Off!,* the narratives that emerged were various and not dictated by the performers or designers. Utilising the idea of interviewing our players, which we developed in *Hacked Off!,* we can again see examples of emergent debate in *Know Your Place.* For instance, one Polish audience member in Poznan told us that our game 'showed very well what's going on here' (*Know Your Place*, 00:35), suggesting that although our game was based on British examples of social injustice, the themes were still relevant to other European experiences.

The formal system of control in *Know Your Place* was focused around the currency of beans and tokens for our fictional island, as described earlier. We can see Jana Wendler in the role of one of the 'Bureaucrats' counting out the beans a player had earned during their education (*Know Your Place*, 00:31). This formal system of control aimed to represent themes of meritocracy in contemporary British and western politics. The beans and tokens symbolised a player's access to education, aptitude in the work place and quality of retirement and the fact that players in the upper- and middle-classes started the game with more beans than those in the working-classes, created an unfair system intent on highlighting issues around social injustice. Jana Wendler, a bureaucrat in the game, is holding a small jar of beans that she is using to reward a player for their education (*Know Your Place*, 00:31). This was one of several jars that represented the treasury of the fictional island and contained all the currency available in the story-world. When presenting *Know Your Place* at *Let's Play Poznan* (Poland), one player from Germany who had been cast in the role of a working-class 'mechanic', had (unbeknownst to us) decided to steal extra beans when 'The Mayor' and 'Bureaucrats' were not looking. This meant that by the end of the game, he had arrived in second place and we were confused as to how he had achieved this after starting with so few beans. Later on in the day at the festival in Poznan, this player confessed to us that he had

taken the view that the system on our fictional island was so unfair that he had decided that the only way to succeed in this game was to resort to crime. Unfortunately, as we were not aware of his actions during the game, this was not documented on film or with photographs, yet it does demonstrate the ability for some of the players in *Know Your Place* to express ergodic actions within the representational universe and formal system of control we had created. This player was equipped with the rules of the game, engaged by the story-world and had produced his own version of the narrative as a form of protest. The Ergodic Approach and the story-world had combined to capacitate an audience member into a position of knowledge with the 'power to act'.

The story-world of *Know Your Place* was created to acknowledge issues in contemporary popular culture and news commentary around the growing gap between rich and poor in western societies. As indicated by the previously mentioned Polish player, these were issues that were familiar to our audience members and that meant they came to this experience with existing knowledge of the themes and material. The same was true when we played this game at The People's History Museum in Manchester, as the museum had a several displays engaging with such issues (Photograph 4, *Know Your Place*).

The presentation and introduction of our formal system of control in *Know Your Place* was designed to emotionally engage the audience members into our chosen themes. For instance, the following excerpt from the script of the Mayor's tutorial demonstrates how we did not simply wish to convey the functional nature of how to navigate this experience but instead we wanted to build a relationship between the audience members and the components and themes of the game:

> I am here to ask you a question: ‘Do you know your place? Isn’t it important that every man, woman or child always knows the answer to this question?
>
> Where do you fit in?
> Who is above you?
> Who is below you?
> Isn’t this...important?
>
> Welcome to our island! We set up this place to answer these questions. We want to make sure that everyone knows their place.
>
> Luckily for you — you have been born onto this wonderful island! We’ll guide you through the three main stages of your life, education, work and retirement. Here on the island, as soon as you are born, the first thing you must do is go and find your own hat, which contains all the things you’ll need to survive on this island! Go! Come back here when you’ve done!
>
> *Players return*
>
> Now, you may think of us as the all important bureaucrats or facilitators of this system. Many have thrived here — there’s no reason why you shouldn’t too; the System has been proven to work. We will now lead you through your life on the island. Throughout the game you will acquire different tokens of your success. Tokens may look different but are each worth one point! The winner will be the person with the most points at the end (*Know Your Place* script and notes, see Appendix).

We can see how in this section of the tutorial, we posed questions about status and position in society before we began to explain the practical processes of what audience members would be required to do. We also attempted to suggest the type of political language that has been used by British politicians to advocate meritocracy, such as ‘thrive’ and ‘success’. The emotionally engaging tutorial in *Know Your Place* allowed players to identify their actions within the game with the themes we offered and as was the case with the German player in Poland, audience members could express their views on these issues through praxis and action.

As with *Hacked Off!*, *Know Your Place* was presented in the public space (except for the presentation at The People's History Museum). We can again see evidence of McGongial's social fabric being woven by audience members (who often didn't know each other) forming groups in public space. For instance, we can see a group of audience members (Photograph 5, *Know Your Place*) occupying a public playground in 's-Hertogenbosch, Netherlands. You can also see other members of the local public sitting in the background using the playground who actually came to join the conversations with the group of audience members after the game had finished.

In terms of the repurposing approach for *Know Your Place*, we repurposed public space and existing game/sport mechanics to generate our representational universe. By presenting our unfair fictional island in playgrounds, town squares and public streets, we attempted to reposition notions of class and status away from institutions and into the public sphere, with the intention of publicising themes of social injustice. In some ways, *Know Your Place* acts as a form of street protest that seeks to bring attention to our criticisms of meritocracy and hierarchy in contemporary society. As with a protest, *Know Your Place* repurposed public space from a place of commerce and transportation to an arena for political debate and expression.

We also built upon existing game/sport mechanics and *Know Your Place* repurposed simple treasure hunt mechanics, school sports day activities (the egg and spoon race), Badminton and children's chase games. Each of these game mechanics was easily recognisable by the audience members meaning that they could access our story-world and navigate our system of control whilst at the same time developing their own emergent narratives from the experience.

4.2.3 **Everything is Awesome**

Everything is Awesome was a collaboration that started in September 2014 between myself, game designer Patrick Jarnfelt of Copenhagen Games Collective and anthropologist Dr Scott Gaule (Manchester Metropolitan University) who led an Arts and Humanities Research network in this area (Games and Social Change Network). It has been presented three times: Playpublik (Krakow, 2014), Woot! Festival (Denmark, 2015) and the Games and Social Change Network (Manchester, 2015). My roles included co-designer, writer and performer and Patrick Jarnfelt provided the technical expertise for the use of the drones, mobile phone and sensors. This game sees a team of six players placed into a future where creativity is outlawed and policed by automated aerial drones. The audience members are cast as renegade creative activists and given five creative tasks, each lasting five minutes, to complete in the public space. These tasks may include painting, graffiti, building something with junk and rubbish, singing a song or rehearsing a dance. However, the audience members have to keep periodically 'checking in' to prove they are conforming to the system and 'not being' creative (not behaving in anyway that could be defined as creative or expressive). This check-in process is digitally managed through a series of programmed (by Jarnfelt) Arduino chips and RFID units (frequently used for locks and administrative reasons in buildings) and this process gets more difficult as the tasks go on. For instance, the audience members have less time to check-in after each completed task. When an audience member fails to check in on time this will release the drone that is controlled via smart phone by Jarnfelt. The drone will approach the team of creative activists and a soundtrack will tell the players to desist all creative activity immediately or they will be 'terminated'. At this point one audience member on the team, who is nominated as the 'cultural hero' by the rest of the team at the beginning of the experience, has to use an EEG brain scanning device to concentrate their mind, produce beta wave frequencies, which will then trigger the drone to reset and fly away. Although the

drone will be flown by Jarnfelt, the signal for flipping the drone by 180 degrees and switching the soundtrack to indicate it is resetting will be triggered by the 'cultural hero' and their ability to concentrate in a tense situation. If they fail to do this in the allotted time then 'robots' (non player characters who are human chasers) will descend on the team and try to catch and 'terminate' them. If a team member is caught before they check in at one of the RFID units then they are out of the game. The aim is for at least one team member to complete all five of the tasks to defeat the drones completely.

Everything is Awesome offers a further example of the ergodic approach. I play a character (a creative rebel leader) who serves the purpose of facilitating the experience for an audience who are positioned in a central position of action. The creative missions and approaches used to design street art, create songs, stage protests or create barricades are completely created by the audience members and for one audience member in particular in this game, there is the requirement to learn how to 'hack the drone' using their physical powers of concentration via the EEG brainwave scanning device. Other performers are also involved in this experience and play as robots who come to life and chase the players should they fail to check into the game's electronic tracking system, using RFID units that link to their player identities. The audience members occupy the central position of power and assume the roles of protagonists. The performers, writers and technicians all occupy the peripheral space to the action and focus on creating an experience that facilitates meaningful action and experience for the players. Furthermore, the audience members are required to learn the formal systems of control, which facilitate a combination of cybernetic, productive and narrative feedback loops. The 'Creative Rebel Leader' equipped the audience with some of the knowledge they needed to navigate the experience (*Everything is Awesome*, 1:39). As with *Hacked Off!* and *Know Your Place*, this takes place at the beginning of the experience as the Ergodic Approach

requires the audience members to fully understand what actions will be required of them in the experience.

The story-world of *Everything is Awesome* also acknowledges a recognisable genre and contemporary issues. In this piece, we wanted to reference a range of science fiction stories that present narratives around rebellion and totalitarianism, such as George Lucas' *Star Wars* (1977) and George Orwell's *1984* (1948). In these types of popular narratives, rebellions against tyrannical or imperial forces are common tropes for themes around liberty and freedom and were, therefore, easily recognisable to our audience members. Utilising such dystopian narratives in a piece like *Everything is Awesome* allowed our players to easily understand the dynamics of our story-world and allowed us to focus on communicating the rules of our formal systems of control. Also, we wanted our story-world to explore contemporary issues around surveillance in public space. The digital sound from the drone and the presence of motionless human characters dressed in white, attempted to create a sense of surveillance in this public space (Everything is Awesome, 1:30 and 1:39). Through this exaggeration we wanted to extenuate the atmosphere of paranoia that is created by the use of CCTV and police patrols in public spaces across western cities. Although we installed these elements into the public space in *Everything is* Awesome, we also needed to create feedback loops to facilitate the decision making process that would form the relationships between our audience members and the components of our story-world. These systems were both cybernetic (as seen by the audience member attempting to 'check-in' on time with the mobile phone at 2:35-42), productivity-based (as seen by the 'Creative Rebel Leader' informing the audience members that they had completed a mission and could move on to the next, at 2:43-50) and narrative-based (as seen by the audience members creating a song at 2:05-12, graffitiing the pathway at 2:17-26 and building a barricade for their resistance at 2:27-30).

The emotionally engaging tutorial in *Everything is Awesome* sought to develop some element of a back-story that would act as exposition of the story-world we wanted to invite the audience members into. Therefore, we decided to present the idea that the 'Creative Rebellion Leader' was the man who had actually invented the drones in an attempt to aid the state in street patrol and civic security. Unfortunately in this story-world, the state had other intentions and developed the technology to exercise their control over people's behaviour. The 'Creative Rebellion Leader', therefore, has decided to start a resistance against the state and his exploited technology. To assist him in this venture he has recruited five 'creative activists' (the audience members) to whom he expresses his belief in their ability to overthrow the system. We can see an excerpt of this back-story being presented to audience members at *Playpublik*, Krakow (2014) (*Everything is Awesome,* 00:07 - 1:28).

The complexity of *Everything is Awesome* required us to explain the functionality of the formal systems of control and the practicalities of using the technology. However, as the emotionally engaging tutorial approach demands, we also needed to encourage our audience members to develop an emotional attachment to these actions and initiate a narrative feedback loop that created agency for the audience members. An example of this can be seen in the call and response technique that I used at the end of my presentation of the back-story (*Everything is Awesome*, 1:22-1:27). The intention here is to entice the audience members into joining this fictional revolution and therefore gain their attention for the complex rules and systems that I will next need to explain to them (*Everything is Awesome* video, 1:39-2:00).

The consumer technology used in *Everything is Awesome* was repurposed towards the aims of our story-world and ergodic approach. The drone, *Mindwave* EEG headset, RFID microchips, Motorola RFID enabled smart phone, Arduino chip and *Unity* game design software were all either hacked or programmed by Jarnfelt to create the cybernetic feedback loops that would

sustain a significant element of the interaction between our audience members and components. Although some of the technology used was fairly recognisable to our audience members (such as the smart phone and RFID chips), the EEG brainwave scanner was a more unusual piece of technology. Originally designed for educational purposes, Jarnfelt had hacked the hardware and linked it to the game design programme he had created using *Unity*. We found that on some occasions our audience members found it challenging to understand how to use this technology, since it is not a common consumer accessory. However, by presenting the technology as a part of the story-world they could ultimately connect its application to their objectives within the game. One image (*Everything is Awesome*, 2:43) shows a 'cultural hero' hacking the drone through their concentration in a successful attempt to protect their team. Furthermore, by introducing this type of technology into a physical game in the public space, we discovered that we were able to create an intense atmosphere for our audience members, even if they did not fully understand how the technology functioned. For example, one audience member described this to us after her experience in Krakow (*Everything is Awesome*, 3:04 - 3:31).

One of the aspects of the Play Communities approach suggests that theatre practitioners should develop inter-disciplinary collaborations when creating a Theatre for Gamers. An example of this can be seen in the collaborative nature of *Everything is Awesome*. The collaborators on this project had skills and expertise ranging from theatre and performance (myself), computer programming and hacking hardware (Patrick Jarnfelt) and anthropology and sociology (Dr Scott Gaule). Geographically the collaboration was spread across three different cities (Manchester, Liverpool and Copenhagen) and was developed in three different countries (UK, Denmark and Poland). Yet it is also the festival culture of urban gaming (taking place in Germany, Denmark, UK, Poland, Italy and Netherlands) that has allowed these relationships to form and flourish. Attending these events as both player and practitioner

allows people in this community of practice to share skills, knowledge and experience whilst also inspiring new collaborations and possibilities for new types of experiences. For example, we developed some of *Everything Is Awesome* in the week leading up to *Playpublik* in Krakow (2014). Invisible Playground designed this festival to include a week-long game design camp where designers were invited to the festival and could develop and play-test their work. This was a crucial part of the process for us as we could test out our mechanics and technology within a community of experienced game designers who went on to provide us with useful informal feedback. Also, since even at this stage we were testing in the public space (the exact space where we would present our game at the festival) we could also gain valuable information from members of the public encountering our tests. Being a part of a structured playful community whilst at the same time generating a playful community within the public space proved invaluable to this process.

4.2.4 **Save Mamma Grottole**

Save Mamma Grottole was a collaboration between co-working space and cultural organisation *Casa Netural* (Matera, Italy), local people from *Grottole* (Italy) and myself. *Casa Netural* had been invited to organise a cultural summer event for the council of Grottole and they decided to invite me into the process with the intention of creating a game that allowed people to explore the historic territory of Grottole. Grottole is a small village located in the province of Matera, Southern Italy and has a small population of approximately two and half thousand people. A part of the village consists of abandoned historic houses, streets and churches and *Casa Netural* were interested in how physical games could be used to explore this territory whilst collaborating with the local people. Therefore, they invited me to deliver game-design workshops that would result in a live game for a summer event in 2015 (Photograph 1, *Save Mamma Grottole*).

Save Mamma Grottole was designed to engage with the local people, traditions and architecture of Grottole. In the first workshop, it became clear that the people of the town were proud of their traditions and felt a deep connection to their territory. It was this realisation that led to the idea of personifying the village with the character of 'Mamma Grottole'. However, the local participants in this design process were concerned that due to a lack of diversity in the local economy (Basilicata is generally an agricultural economy), young people were finding it more and more difficult to remain in their home village. The fear for the local people was that their traditions and history could get lost as more and more young people sought work and opportunity elsewhere. Therefore, we decided that the character 'Mamma Grottole' was actually very poorly and was losing her memory. To save her, teams of people would need to meet with her at the event and go on a mission to discover local stories, characters, games and architecture. By doing this, the audience members would be able to return Mamma Grottole's memories to her and protect their way of life. The piece started with each team meeting with Mamma Grottole and learning of her troubles and then being equipped with the knowledge of how to save her and a map to locate and rediscover her memories. In total there were five memories that each team would have to discover, each located in different parts of the village. Each of these memories were based on local folklore, historical events, public figures and traditions. There was also a sixth story that acted as a chase element of the experience. Grottole has a local legend about a type of 'werewolf' who would sometimes hunt the people of the village during the night. Legend has it that the werewolf could not set foot on any steps and was vulnerable to the water of the village. Therefore, the audience members were equipped with water pistols and informed of how to avoid the werewolf at the start of the experience. At the end of the experience, the players met in a central square within the village and celebrated their success with local wine and music.

Unlike the other examples of my practice, I did not perform in *Save Mamma Grottole* myself and instead focused on the game-design and writing elements of the process.

The Ergodic Approach in *Save Mamma Grottole* enabled local audience members and people from nearby towns and villages to be placed in the centre of the action with the ability to save Mamma Grottole and her memories. The audience members, therefore, were not spectators to this narrative but instead players who would have to learn a control system and navigate a public space populated with performers and designers. The performers (local participants) who played the roles of Mamma Grottole and figures from history and folklore were all positioned peripherally to the audience members. Each of the performers invited the teams to perform certain tasks in their different locations. We can see examples of this. We see a local performer in the role of a famous architect from Grottole who had built a church and mysteriously died in a fire during its completion (*Save Mamma Grottole*, 00:34 - 00:43). This character is inviting the audience members to learn the truth of what happened to him by playing a type of 'hopscotch' puzzle game that will result in him confessing that he burnt the church down himself (as suggested by local rumours). We see the audience members being taught some of the traditional children's games of the village whilst a character narratives their history and origins from a local book of games (*Save Mamma Grottole*, 00:56-1:05). We see performers presenting a scene about famous Southern Italian highwaymen who then invite the players to search for the face of one of their comrades in that location, which is actually a face carved into the stone from hundreds of years before (*Save Mamma Grottole*, 1:08-1:19). We see a child performer in the role of the mythical 'monacello', who is an elf-like character who is said to taunt the children of the village during their sleep (*Save Mamma Grottole*, 1:24-1:31). For centuries, parents have told their children that should they encounter the 'monacello' during the night and he sees them, they must attempt to capture and steal his little

hat or else the ‘monacello’ will kill them. In this example we can see the audience members attempting to capture the young boy’s red hat and reenacting the story. We see a character based at the castle of the village who is inviting the players to find the lost love letter of a soldier, who fell in love with a princess (*Save Mamma Grottole*, 1:35-1:41). All of these examples demonstrate the application of the ergodic approach. Though the audience members spectated momentary performance scenes, the focus was always on their objective to uncover each memory through non-trivial action and effort. Furthermore, the audience members were not directed around the village in a particular order but could instead choose their own journey through these memories with the possibility of not completing the tasks in each location and not even finding all of the memories in the maze of streets and buildings.

The story-world of *Save Mamma Grottole* was designed to facilitate several processes. Firstly, the story-world had to encourage ergodic activity and support interactive and narrative feedback loops. Instead of creating a story line that would depict the rescue of ‘Mamma Grottole’s’ memories, we decided to create a story-world in which the audience members would create that rescue themselves. By searching for and completing the several tasks available in the story-world, the audience members would be positioned centrally as the protagonists of the narrative. Furthermore, the majority of the audience members were people who lived in and came from Grottole and therefore, our story-world had to engage with recognisable themes and narratives. A further aspect to the design of our story-world related to the objective of letting the audience members explore the territory in an innovative way, particularly the abandoned historic centre of Grottole. Finally, we needed to design the experience in a way that would allow the audience members to be equipped with the relevant information and knowledge that they would need to navigate the experience.

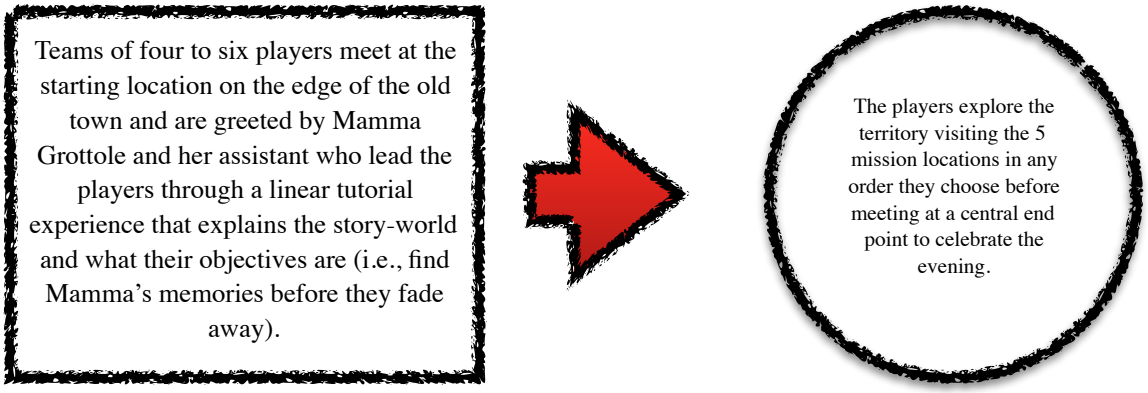

Figure 12: Model for game structure of *Save Mamma Grottole*

Therefore, I suggested the above design structure (see figure 12) for our story-world, which is inspired from the story-worlds approach I have described in this chapter:

As described earlier, the story-worlds approach presents a linear tutorial section that equips the audience members with the knowledge they will need to engage with the work in an ergodic manner before moving them into an open world situation where they can choose their route and explore the territory using a map (Photograph 2, *Save Mamma Grottole*).

As the Emotionally Engaged Tutorial approach suggests, the linear tutorial section of a story-world cannot only convey functional and practical information. Instead, the approach argues that the audience members need to be emotionally engaged into the story-world they will inhabit and the actions they will perform. It is for this reason that we decided that the first part of the experience should focus on a meeting with our fictional character of 'Mamma Grottole' and her daughter who could explain the rules and objectives of the game whilst also creating an emotional response in the audience members (*Save Mamma Grottole*, 00:06-00:25).

As the Playful Communities approach suggests, *Save Mamma Grottole* was an opportunity to introduce play into a cultural activity in a way that the local audience members had not experienced before. By developing a playful activity within the cultural programme for the village in the summer of 2015, we could see some of the playful qualities appearing in the local people and audience members. For example, grouping our audience members into teams (one of which is presented in the video documentation), we could see elements of McGonigal's social fabric forming across the experience. This was evident in the collective exploration of the town by teams of audience members who had to discuss and debate which direction to take and how to approach certain activities. Furthermore, some of the more physical aspects of the challenges (*Save Mamma Grottole*, 00:56 - 01:05) encouraged audience members to develop social fabric through physical contact and touch. However, *Save Mamma Grottole* also demonstrates how social fabric could be formed between members of the audience and the local non-playing residents of the town. For example, we can see audience members asking for directions and assistance in their quest at the house of a local resident (Photograph 3, *Save Mamma Grottole*). The audience members are not only asking for directions but they are also explaining to this resident that they are on a quest to save the memories of Grottole and are, therefore, inviting this local resident into the magic circle of the game.

A further element to the Playful Communities approach applied in *Save Mamma Grottole* concerns the workshops I delivered in the process leading up to the event. The design process with the local participants did not only seek to create a single game for their summer programme but also attempted to impart some of my game design knowledge and practice to the local artists and practitioners. The intention was that even after this project had been completed, the local residents would be able to go on and create more playful experiences for future events in their village. An example of this can be seen in the rudimentary drawing I

made of designing a story-world (see figure 10) during one of the workshops (Photograph 4, *Save Mamma Grottole*).

In terms of the Repurposing approach, *Save Mamma Grottole* was an example of my practice where, as with *Know Your Place*, technology was not used as a story-world component. The audience members were invited to use their smart phones to document their experiences (Photograph 5, *Save Mamma Grottole*) but the core components and interactive feedback loops of the experience were analogue in nature and focused on the game design and reinterpretation of public space. For example, the map (Photograph 1, *Save Mamma Grottole*) represents the recognisable treasure hunt mechanic and the chase elements resonate with popular childhood play and games. By repurposing such game mechanics we could make our interactive system and story-world accessible and allow the audience to focus more on the narrative quest of saving Mamma Grottole's memories. We also repurposed the space in this way by creating *Save Mamma Grottole* as a site specific event that saw our story-world directly related to the long-standing history, traditions and culture of Grottole. In this way, the abandoned parts of the village became repurposed towards cultural and historical recollection and restoration with play acting as the vehicle to these objectives.

In the final chapter of this thesis, Chapter Five: *The Future of a Theatre for Gamers*, I will conclude this research project by relating my practice and research back to my original two questions. I will further explore the relationship between my practice and research and the three pillars of this project: Agency, Interactivity and Play and also explore the possibilities for future developments of a Theatre for Gamers. Furthermore, I will conclude by exploring the potential impacts that my work could have on other fields, including education and politics, and I will offer sign posts for future researchers to explore such themes in their own spheres of practice.

Chapter Five: The Future of a Theatre for Gamers

This final chapter will conclude this thesis by considering how this practice as research project has addressed the two research questions posed in Chapter One: *Motivations*. It will analyse these questions in relation to the practice I have described in Chapter Four: *Towards a Theatre for Gamers*, as well as the three pillars of this research that were presented in Chapter Three: *Agency, Interactivity and Play*. This chapter will go on to suggest further areas of research for future practitioners of a Theatre for Gamers, whilst also exploring the implications of my research on other fields and areas.

This research project aimed to respond to two questions:

1. Which approaches can be developed to fuse game design principles into live performance?
2. How are the performance practices considered in this study impacted when merged with game design, gaming culture and gaming technologies?

In terms of the approaches that I have developed to fuse game design principles into live performance, Chapter Four: *Towards a Theatre for Gamers* outlines five approaches that have been inspired by game design practice, the communities of practice who work in games/play and the body of academic research that has been carried out in this field.

5.1 **Contributions and Impacts of a Theatre for Gamers**

The most significant contribution that my research has made to the field of performance concerns the application and testing of an Ergodic Approach outlined in the previous chapter. Originally a term used by physicists when discussing thermodynamics, Aarseth (1997)

introduced the notion of ‘ergodic texts’ into game design in his discussions of cyber-texts. The definition of an ergodic text (see pp.48-49) has been developed by game designers to emphasise the configurative nature of games (the opportunity to configure settings, actions and modes of play) to the medium they work with and my research has sought to introduce such definitions into the field of performance. The Ergodic Approach, as exemplified in works such as *Hacked Off*, *Know Your Place*, *Everything is Awesome* and *Save Mamma Grottole*, directs performance practitioners towards an ergodic theatre, in which audience members are required to put in ‘non-trivial effort’ (effort that requires the acquisition and application of new skills and knowledge) whilst maintaining an agency driven position at the centre of an experience. The opportunity for developing agency in audience members when applying the Ergodic Approach to performance offers a response (though not the only response) to Rancière’s call for ‘a different theatre’. Each of the pieces of work I have described in Chapter Four demonstrates examples of audience members being equipped with knowledge that allows them to act within the story-world of the work and they offer examples of a theatre where the audience members are released from spectatorship through ergodic techniques, such as learning control mechanisms and engaging with interactive feedback systems.

In a Theatre for Gamers, agency for audience members is maintained by the deeper understanding of interactivity that is offered in game design. Crawford’s cyclical notion of interactivity (2005) relates to the design and development of feedback loops, which build relationships between game components and audience members. A Theatre for Gamers offers an inter-medial space consisting of game design and performance and this resonates with Scott’s notion that, ‘the mediums themselves can be seen in a constant state of ‘becoming’, while simultaneously generating discourse between such ‘becomings’ in the inter-medial space’ (Scott, 2016, p.39). Such discourse is exemplified through the application of

cybernetic, narrative and productive feedback loops in my practice. *Everything is Awesome* demonstrates how a cybernetic feedback loop is used to maintain an interactive system between audience members, performers, microchips, a brain scanner, a smartphone and a drone. *Hacked Off!* and *Know Your Place* offer examples of productive feedback loops that form direct relationships between the actions of audience members and their progress within an experience. *Save Mamma Grottole* offers an example of a narrative feedback loop that draws audience members into a relationship between their actions and the history, culture and people of a Southern Italian village. My research intends to direct performance practitioners towards the more systemic (or rule based) understandings of interactivity that are deployed in gaming.

A deeper understanding of interactivity in performance, informed by game design, also leads to a further way to consider notions of immersion in live performance. Although performance studies have explored definitions of immersion (see pp.68-69), a Theatre for Gamers argues that gaming practice and research offers a different way to consider immersion in the field of performance. White's criticism of the 'subject-object divide' (see p.67) is echoed in Zimmerman's own criticism of the 'immersive fallacy' in gaming (see p.69) and a Theatre for Gamers introduces Zimmerman's definition of immersion into performance. All of the practice I have described in the previous chapter demonstrates systematic designs of affordances and constraints that immerse the audience members into their own generated meaning within contextual frameworks. Therefore, a Theatre for Gamers argues that it is not aesthetic detail that creates immersion for audience members, as seen in performance works such as *The Drowned Man* by Punchdrunk, but it is instead the combination of ergodic design and interactive feedback systems that enable and relate to the actions of audience members.

Definitions of participation are also challenged by a Theatre for Gamers. For instance, Alston (2016) links immersive theatre with 'productive participation' and he identifies two-forms of productive participation: 'Narcissistic participation' and 'entrepreneurial participation'. In 'narcissistic participation', audience members are both, 'introspective, because aesthetic attention is turned to one's own experiencing self, and projective, because aesthetic attention is also projected onto an environment' (Alston, 2016, p.10). 'Entrepreneurial participation' sees the audience members 'able to roam more freely through a range of spaces, discovering the hidden secrets of the performance' (Alston, 2016, p.10). Both of these ideas of participation are concerned with an aesthetic mode of attention for audience members where the objective of their participation is to uncover or reflect on the aesthetic qualities of the work. A Theatre for Gamers suggests that this mode of attention be redirected towards the interactive, where the objective is for audience members to be focused on the actions they make in relation to an interactive or rule-based system. This relates to the points made about participation and gameplay by Quack and Bishop in Chapter Three (see pp.67-68) and *Save Mamma Grottole* illustrates this. In this piece of work, the audience members were not participants in the experience but were instead audience members who were repositioned to more central roles of action and decision making. They were engaging with Bishop's notion of 'an art of action' that interfaced, or interacted, 'with reality'. Instead, the participants in this experience were the local people who contributed their knowledge and skills into the design process. The story-world, rule system and ergodic experience that they created acted as a structure inhabited by the audience members, redefining them as players within a system. In this sense, a Theatre for Gamers does not seek to describe audience members as participants but rather as players.

Redefining audience members from participants to players has demonstrated the possibility to encourage a range of playful qualities in audiences of a Theatre for Gamers. A state of flow is one such quality (see p.47) that is often associated with playful behaviours such as endurance, versatility, focus and concentration. We can see evidence of this from the application of my five approaches in the previous chapter. For example, one audience member who played *Everything is Awesome* reported that their experience was 'intense' (see p.153), which suggests that the experience induced a state of flow for that player. The audience member who co-satirised our critiques on British journalism in *Hacked Off!* (see p.138) also demonstrates this state of flow when she continues to engage with and inhabit the story-world after the game has finished (by suggesting she attended a hacking course at journalism school). The players in *Know Your Place* (Photograph 1, *Know Your Place*) show the concentrated expressions of people who experience flow in sport or other physical activities, as they attempt to capture the shuttlecocks through their 'circles of opportunity' (see Appendix, *Know Your Place* script). All of these examples demonstrate how a Theatre for Gamers is more concerned with developing flow for its audience members, instead of its performers.

We can also see how the application of these five approaches has generated the gamer qualities identified by McGonigal (see p.97). The audience members in each of my four examples of practice demonstrate a state of blissful productivity as they progress through each experience, interacting with the rule systems that communicate their progress back to them via the interactive feedback loops. We can see examples of urgent optimism in the audience member of *Know Your Place* who resorted to cheating the system in the hope he could still succeed (see p.145) or in the applicant for *The Daily Hack* in *Hacked Off!* who succeeded in keeping her secrets despite the other players who 'ganged up' on her (see p.137). The willingness seen in the 'Creative Rebel Activists' of *Everything is Awesome* to answer the call

to revolution demonstrates their desire for McGonigal's epic meaning (see p.152). Finally, the manner in which social groups formed both in the playing and designing of these experiences reveals the ability for a Theatre for Gamers to develop a social fabric.

Developing such playful qualities in an audience of a Theatre for Gamers can result in those audience members attaining Steenhuis's 'playful state' (see p.94), which is a state that De Koven argues all human beings are capable of reaching (see pp.92-93). A Theatre for Gamers introduces this possibility for audience members of performance and it encourages practitioners to create such states in public spaces or places where play is not expected. Furthermore, the interactive and ergodic nature of a playful state offers an opportunity to realise the Hegelian notion of self-consciousness existing 'for another' (see p.44), since players of a game generate meaning from their actions through an acknowledgement of each other. Rancière's suggestion that audience members can experience a 'blurring of the boundary between those who act and those who look' (see p.45) can also be achieved through a playful state. In games, players enter the 'magic circle' (see p.91) and through inhabiting such contextual frameworks and structures, we can see examples of the blurring 'between individuals and members of a collective body' that Rancière has argued for. Each of the four pieces of my practice described in this thesis demonstrate these qualities. In *Hacked Off!* and *Know Your Place*, audience members are positioned as individual players within the respective game structures. However, they inhabit a story-world governed by interactive systems and are realised as a collective body within a magic circle. *Everything is Awesome* and *Save Mamma Grottole* offer a different dynamic in which the players act as individuals who form a team, yet they still inhabit an interactive and ergodic system as a collective body. My practice demonstrates how a Theatre for Gamers can introduce the notion of the playful

state to audiences of performance whilst also blurring the boundaries between individuals and a collective body.

A further area of performance that a Theatre for Gamers impacts upon concerns narrative. As works like *The Drowned Man* (Punchdrunk) and *In The Beginning Was The End* (dreamthinkspeak) have demonstrated, contemporary performance can experiment with forms of linear and non-linear narrative design. There are also many examples of participatory forms of narrative in performance, such as that seen in *Peel Park Asylum* (Moonstruck Me). However, in gaming, we have seen the introduction of Crawford's notion (2005) of 'story-worlds' (see p.71) and a Theatre for Gamers introduces this narrative design into live performance. The Story-worlds approach requires audience members of performance to co-construct (with other audience members) a narrative through praxis that includes the possibility for failure, incompletion or repetition. *The Drowned Man* and *In The Beginning Was The End* do not offer such possibilities because they do not include ergodic activity or interactive systems in their design. Instead, these works privilege the aesthetic modes of participation described by Alston (see p.164). As an audience member experiencing these works, it is not possible to fail, leave incomplete or repeat anything because the narrative is not co-constructed by a collective body of audience members through praxis. Spectators cannot fail, leave incomplete or repeat a narrative because they are positioned on the periphery of those actions. However, the examples of my practice described in this thesis all demonstrate such possibilities. In *Hacked Off!*, it is possible for audience members to collect all of the available stories from other players or not collect any at all. They can succeed in impressing the editor of 'The Daily Hack' or fail to do so. They can also choose to repeat their experience of the game in the hope for a different outcome. The same is true for audience members of *Know Your Place*. Audience members can succeed or fail in each of the

three stages of their life on the fictional island and should they fail at certain points (such as dropping their egg in the egg and spoon race, or failing to capture a shuttlecock through their hoop) they can try again. In *Everything is Awesome*, if the audience members fail to 'check-in' on time with the cybernetic feedback system, the robots will attack them and they have the possibility to be out of the experience. Teams in *Save Mamma Grottole* might not find all of the locations available to them and they have the possibility of failing and repeating the different tasks associated with each location. Each of these four pieces demonstrate Crawford's idea that a story-world enables an audience member to produce their own version of a narrative, a narrative that is not dictated to them by the performers or the practitioners of the work.

A Theatre for Gamers also offers the opportunity to develop gaming practice. For instance, the Emotionally Engaged Tutorial introduces the principles of Hegelian epic drama into the introduction and explanation of physical gaming. Inspired by the narrative based tutorials of video games such as *Dishonoured* (see pp.129-130), The Emotionally Engaged Tutorial approach deepens the sense of agency for players by creating narrative-based relationships between learnt affordances and constraints within a game system. As discussed in the previous chapters, in a Theatre for Gamers, audience members need to be fully equipped with the necessary knowledge and information to navigate interactive feedback systems and story-worlds. Physical, social and table-top games (such as those designed by Zimmerman, see p. 128), often include tutorials that are functional in nature and are separate from the story-world created. The result is that a lack of emotional attachment is formed between the components of the game and the players. As demonstrated in my work, it is possible to use the Emotionally Engaged Tutorial to increase the playful qualities in players and audience members. For example, the framing of our rule system in *Hacked Off!* allowed some audience

members to take ownership of the themes of the game and express their own views (see p. 138). This was also true for players in *Know Your Place* who formed political relationships between the affordances and constraints of the game system and the themes of social injustice presented in the story-world. We could also see this in terms of a deeper relationship between the game components and public space in *Everything is Awesome* and *Save Mamma Grottole*. The Emotionally Engaged Tutorial, therefore, introduces elements of performance into physical gaming and it is a concept that other designers at the festivals I have attended (such as Zimmerman) were interested in developing into their own work.

5.2 **A Theatre for Gamers: Next Level**

This research project has introduced the concept of a Theatre for Gamers and it has demonstrated through practice how this could be realised. It has offered five approaches for performance makers who might wish to create this type of practice and it has demonstrated how these approaches can be applied in practice. However, there are further areas and approaches that could be developed in the future.

One area for further development concerns the relationship between a Theatre for Gamers and new technologies. A Theatre for Gamers offers the Repurposing approach as one method for performance practitioners to develop interactive feedback systems in their practice. *Hacked Off!*, for example, demonstrated how a group of designers without specialist technology skills could repurpose existing technologies (mobile phones) towards the creation of game and story-world components. However, as was demonstrated in the development of *Everything is Awesome*, it is often the case that performance practitioners lack the complex skills of computer programming, coding and hacking that experts such as Jarnfelt (Copenhagen Games

Collective) have developed over many years. This gap in knowledge imposes a limit on the level of repurposing that performance practitioners can currently apply to new technologies in the digital sphere. Therefore, I suggest that future practitioners could form collaborations with technology experts such as Jarnfelt, to create some type of digital tool kit that opens up parts of this technological sphere towards performative and game-based live experiences. Perhaps such a digital tool kit could include some graphical interface software and a selection of hardware (for example, game controllers, sensors, lights and speakers) that would be more accessible to practitioners such as *The Larks* or *Playfuel*.

Save Mamma Grottole demonstrated a further area for development in a Theatre for Gamers. The Play Communities approach argues that a Theatre for Gamers should attempt to make work in the public space or spaces where play is not generally expected. It suggests that a Theatre for Gamers should attempt to engage audiences who do not usually play games or engage in playful activities. The small community and village of Grottole in Southern Italy is an example of both a space and audience that is not generally used to playful activities. By developing a relationship with the cultural stakeholders of the village (members of the local council), Casa Netural managed to introduce a Theatre for Gamers to a new audience. Therefore, I suggest that more relationships like this are formed in other places where play is not expected and that practitioners of a Theatre for Gamers seek cultural opportunities to introduce playful experiences in local festivals, events and artistic practices.

Finally, in terms of performance, this research has argued that more interdisciplinary collaborations should be formed between practitioners of performance and game designers. My research has argued for a theatre that engages the growing gaming community and in order to succeed, a Theatre for Gamers will need to continue to develop the relationship

between the spheres of performance and gaming. The development of this relationship can occur in several ways. Firstly, practitioners from both fields could form collaborations through the various arts funding schemes available in different territories (such as Arts Council England). Secondly, festivals and events in both spheres could find ways to combine their practices, so that practitioners from each field have an opportunity to experience each other's work and form new relationships. Finally, educational courses in each field (particularly those at HEIs) might further develop existing multimedia modules to combine the two fields of gaming and performance, and invite students of each discipline to collaborate on learning projects.

5.3 **Implications For Other Fields**

A Theatre for Gamers has the potential to impact on other fields of research and practice. For example, the Ergodic Approach to performance offered in this project could be further researched in the fields of politics or education. Perhaps a type of ergodic politics could be researched and developed, in which citizens are placed at the centre of their communities decision making processes with politicians repositioned to the periphery and acting as facilitators of society. Beppe Grillo's Five Star Movement in Italy is exploring such a notion through their *Rousseau* online platform. Their website states that *Rousseau* will aid the Five Star Movement,

> …in managing the various elective components of Italian government (Italian and European Parliaments, regional and local councils) and the participation of members of the public in the life of the Five Star Movement, through, for example, the writing of laws and the vote for the choice of electable representatives or positions in the movement (Translated from https://rousseau.movimento5stelle.it).

Education could also be an area to explore in terms of ergodic practice, with countries such as Finland deciding to make radical changes to their educational system (Garner, 2017). Instead of children learning subjects at school, the Finnish have decided that children will be now taught topics that are interdisciplinary and require a more collaborative approach to learning that will see students working in small teams to solve problems and develop their communication skills. This new style of education resonates with the Ergodic Approach described in this project and perhaps demonstrates the possibility of an ergodic educational system.

In many ways, A Theatre for Gamers expresses the paradigm shift of our digital age. The zeitgeist of the early part of the twenty-first century could be said to be concerned with the frustration of spectatorship. We are frustrated with spectatorship in education. We are frustrated with spectatorship in the way our societies are governed. This separation between our 'capacity to know and power to act', as Rancière puts it (see p.44), has led to seismic shifts in the political, technological and social landscape. From Brexit, to the election of Donald Trump and to the largest political movement in Italy's history, The Five Star Movement, we live in a time where people are seeking opportunities to exercise the same control that is afforded to them by their personal technologies. Historically, the theatre and performance space is the place to voice these frustrations yet my research argues that the nature of these experiences should correlate with the nature of our experience in our every day lives. The more than 1 billion gamers in the world are growing in number each year (see p. 105) and can no longer be ignored. Their attitudes and expectations towards all spheres of life are changing. They demand agency, they expect interactivity and they want to play.

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Appendix

Hacked Off! - an early script:

Roaming

The Secretary

You! You look unscrupulous. Have you been to see the Editor? He is recruiting for Reporters for his paper. He has an interview slot at 2.30pm if you'd like?

Makes appointment with clipboard.
...
The Editor's Desk

The Editor

Welcome to The Daily Hack. We are responsible for only the finest quality hacking and gutter journalism. We need to make sure we get only best hackers here, we'll accept absolutely no principled behaviour whatsoever. We need to put you through a little test – this is a test to demonstrate your capabilities for employment here. If successful, you might even one day, become as deplorable as me.

You'll take on the role of a Private Investigator or a Celebrity. In order to work for the Daily Hack, we need you to really get to get your hands dirty, raking in only the finest of muck, get to grips with what you'd be doing everyday.

...
Rules

Your aim is to obtain more stories on the opposition than they have on you.

Each pair will receive three pieces of information to hold dear to your hearts – these are **Stories** which if revealed become published, revealing you at the centre of a series of events you'd rather not be associated with.

For PIs these are stories of hacking activity, questionable reportage and compulsive behaviour, which if revealed will damage your journalistic reputation for discretion and good taste.

For Celebrities these are stories of secret affairs, illegitimate children and closet addictions, which if revealed will damage your reputation amongst your adoring public.

Stories are obtained by the opposition through **Hacks** and **Leads**.

Hacks are calls to **Call Points** dotted around the area. There are 8 Call Points throughout the playing space, and they are marked up like this (show example). Their numbers are detailed

in **The Little Black Book**. To make a Hack to Call Point, dial a number and if it is answered, shout 'Hacked Off!' to which the opposition must reveal one of their stories in full.

All ringing phones must be answered by declaring your team name, 'e.g. Team Oscar'. If the caller shouts 'Hacked Off!' you must reveal a Story, but equally a ringing phone could also produce a Lead. If you don't produce a Story upon request, you will be reported to the **Police** for failure to comply with the Constitution of Hackers.

Leads are call to Call Points from anonymous callers giving you information, from which, together with a little imagination, you may be able to work out the full Story it relates to.

However, discretion is of utmost importance, as if you are caught Hacking or receiving Leads by fellow players you may be Pinned. Each player receives a series of Pins to Pin stories to the opposition.

At the end you must give up all your stories to the press. A point will be given for each accurate Story and deducted for each Pin; the pair with the most points wins. Stories will be checked alongside Leads and any incorrect stories will be declared **Slander** and will not be counted.

Comments and testimonies must be given to the **Leveson Inquiry** at the end of the game.

Before you start, you'll need to sign a Confidentiality Agreement.

Private Investigators, you must confirm that you will:

- not to pay any regard whatsoever to anyone's rights or privacy. Remember that privacy is the space bad people need to do bad things in.
- break the law as often as you need to. Don't worry – (*taps nose*) we have an agreement.
- and, this one is very important, if anyone – ANYONE – asks if you know of any illegal activity happening here at The Daily Hack, answer all questions with 'any information of that nature has not been imparted to me.'

Celebrities, you must confirm that you will:

- omit all your rights to privacy.
- not change the default security setting on your mobile phone. It complicates the process.
- and, this one is very important, court the press to your every advantage. Remember that you have a publicist. You spend your life trying to get into newspapers, and if we write about you, we're doing you a favour.

Leveson Inquiry

The Secretary

Now, if you can just put this on for me (*hands Peter Pan collar*), I'm going to have to get a testimony of your experience. What did you think of *Hacked Off*? What was the best part of *Hacked Off*? Did *Hacked Off!* make you think about the current situation of the British press?

Know Your Place script:

Preparation:

prepare player bags & hats
hats go out

prepare school grade envelopes
put lines on ground with signs

ELITE 2x
cost 5 & 7
grades 18 & 20

RELIGION 2x
choose 2 religions
grades 10 & 15

OPPORTUNITY 2x
grades 10 & 15

EVERYMAN x 10
grades 2,2,3,4,5,6,7,8,9, 10

Career
3 lines of hazard tape
put things there

Introduction

I am here to ask you a question: 'Do you know your place? Isn't it important that every man, woman or child always knows the answer to this question?

Where do you fit in?
Who is above you?
Who is below you?

Isn't this...important?

Welcome to our island! We set up this place to answer these questions. We want to make sure that everyone knows their place.

Luckily for you - you have been born onto this wonderful island! We'll guide you through your the three main stages of your life, education, work and retirement. Here on the island, as soon as you are born, the first thing you must do is go and find your own hat, which contains all the things you'll need to survive on this island! Go! Come back here when you've done!

**Monty Python Music*

The only missing part to your identity is your unique 'motto' - which I will invite you all to create now....

Have a look at Jana here for an example - BUILD FOR THE FUTURE!

I shall give you each 30 seconds to come up with this. After the music I shall want to hear them!

**Monty Python Music*

Ok - lets hear them...on the count of 3....1,2,3....you can do better than that...etc...etc....etc.

Now, you may think of us as the all important bureaucrats or facilitators of this system. Many have thrived here – there's no reason why you shouldn't too; the System has been proven to work. We will now lead you through your life on the island. Throughout the game you will acquire different tokens of your success. Tokens may look different but are each worth one point! The winner will be the person with the most points at the end!

One important thing! Throughout your life you are also on a quest for love... Inside your passport you find a heart. Inside the heart is a colour. Someone else here might have a matching colour on their heart – you may want to find the person with the matching colour. At any point if you think you may have found your true match, you may declare your love and propose marriage, gaining both you a marriage token each! *(Greg has marriage tokens in his pocket - he deals with marriage).*

Demonstration Jana / Afreena: marriage proposal
Let's see an example.

But beware! The bureaucrats do not like to hear you openly talk about your love lives! Opening your heart is a risky business - if the bureaucrats catch you, you will be punished! Remember - you can propose at any point in the game!

So! Now...it's time to start your education!

Let's go!

EDUCATION

(Greg leads everyone to school application area - maybe with Monty Python music)
Welcome to the School Race!

Here on the island there are four types of school. They have different requirements to get in and they will provide you with different quality education in the form of grades (or beans). But places are limited!

Players all start in a line with their eggs & spoons ready to race. There are four lines to cross. Each is a different school, and if you meet the requirements you are allowed to stop at a line and pick up and envelope. The first requires money, the second the right religion. If you are still going at the third, you can wait there to sit an entrance exam – or just make your way to the final line, the everyman school. If you fail the exam, you will also get an everyman school (but the good ones might have gone). If at any point you drop your egg, you need to stop and pick it up again. The bureaucrats are here to make sure the application process runs smoothly.

all 3 of us manage envelopes

WORK

So! Congratulations! You have been educated! Now you need to enter the world of the workplace!

(Jana and Tricia to lay lines and put the standard circles) and then Vee joins to start playing/ demo the game

Greg leads everyone to class warfare badminton - Monty Python music?

Welcome to bureaucratic badminton! This is now your work place! These bureaucrats will be playing badminton and your job is to try and get the shuttlecock to pass through your circle of opportunity! Each successful pass will earn you air miles (Greg has in his pocket) to spend in your retirement!

Three people will work at a time. You will each choose a lane and each lane provides you with a standard circle of opportunity. However, over here, you have the opportunity to buy a bigger circle of opportunity using the grades that you earned at school. The stock market will sell these circles at the beginning of each round.

One more thing - it's important that everyone contributes and keeps the system going! So in each round we will call forward three people to keep a constant flow of shuttlecocks for the bureaucrats. If they feel that you are not doing your job properly then they may decide to confiscate all of your property - even your hat - and you're game will be over. This society will not tolerate people who do not contribute!

You must stay within your lane for the duration of the game! Work will last for the length of the music!

Greg & Afreena hit shuttles

Afreena stock market

Jana organise players
keep score
pay players

Congratulations! You've worked hard all of your life – some of you worked harder than others – some of you have married. Now you are going to get out what you've put in!

Lets go the retirement base!

Greg leads people to retirement base... Monty Python music.

RETIREMENT

First we need to make an orderly queue! So lets get shortest person at this end and the tallest at this end- GO!

So you've earned your air miles!

There are three destinations available to travel to. You'd like to see as many as possible. Some destinations are closer than others. They are dotted around the square. But be careful. Death is always chasing you. There is a time limit of five minutes.
When you visit the destination, you need to pay to get a stamp. Different destinations will cost you different amount of air miles and will reward you with different value stamps. You can see the value of these destinations here.
The destination is a safe space whilst you make your transaction. After visiting your destination you must leave. You can visit each place once. If you are caught by death, you must return to the base.

Tricia, Jana and Vee are destinations; volunteer to be chaser.

Cheap and cheerful! A day out in Skegness! (2 travel stamps)

A little bit of sophistication - a weekend in Paris! (10 travel stamps)

Unlimited Luxury - a fortnight in Dubai! (20 travel stamps)

[make a sign that shows price and value of stamp]

The game will begin when the music starts! And when the game finishes - retirement ends....

Come back here and we will see who has been the most successful throughout their lives here on the island!

All count scores

**Seaside music*

Everything is Awesome Notes and Script

- Meet the 5 players at the rebel base
- Introduce the rebel leader and explain his back story (Used to work with drones, realised their purpose,
- Explain the new situation with The Drones
- Offer the challenge to the players and the opportunity to become creative activists
- Explain that there are 5 Creative challenges in different locations that I will lead them to.
- The system needs you to 'check-in' - so one person each time will have to take the phone to one of the four check in points. The phone will tell you if you've successfully check in or not. Sometimes the checkin points don't work - but the system still expects you to check in - you'll just have to find someone else! Someone needs to check in every time the phone tells you to.
- If you Fail to check in in time - a drone will be released and will hunt you down.
- This is where you will need a hero...a hero with a brain...who can hack the drone using their creativity...my assistant will help show you how to do this! (Patrick sets up brain scanner and demonstrates how to flip it when it's in angry mode)
- The leader explains about the consequence of brain failing to concentrate...releases chasers - who will try and tag and kill you. Each player must get to a different check in cone to become safe...if you get caught you're out!! The leader will protect the brain.
- Leader goes over everything one more time And hands ID cards out.
- Takes the team to first challenge give them the first envelope.
- Repeat for 5 times.
  - Pause game in between tasks. L
- 3 mins a challenge.

My friends. Everything is not awesome...

Our world is changing...we are increasingly being watched! It's not safe in our streets anymore...not for the likes of us at least!

It's the drones...my creation....my gift to the world! Well I thought it was a gift...it's turned out to be a nightmare! They were supposed to protect us...I designed them to help police our streets, keep everyone safe...but 'the system...' has gone out of control! It wants to keep everything in order...keep everyone conforming! Keep us in our normal drab lives...

The system doesn't like creativity - the drones are being used to stop all acts of creativity in the streets! They think it's...dangerous...

Well that's why you're here...you see I've done my research on you all...and I think you're the perfect people to take part in this rebellion....you are now creative activists and together we're going to bring these drones and the system down...we're going to overload it with creativity!!

So...I have located 5 perfect locations for us to make our stand! When we're ready I will take you to the sites and give you a creative mission to complete...you'll have 3 Minutes to complete each task...

However...we can't get caught! We have to do this in secret and we need to make sure the system thinks we're being mundane...conforming...being normal...no creativity at all!

The system needs us to all 'check in' whenever we receive instructions on our phone...

Let me show you how this works...

Greg leads the team over to a check in point.

This is how it works...at any point during our resistance...a message will appear on the screen instructing a citizen, giving their ID - which I will give you in a bit...To find a check in point...and scan the phone over here...

Greg demonstrates

Ok? Got it? Remember! You must check in when the phone tells you to....but sometimes the check in points don't always work...but the system doesn't care...You still need to check in...so find another one! if you don't check in...the system gets suspicious...and that's when my precious drone will be released...

If you fail to check in when required and in time...the drone will hunt all of you down... and put an end to your creativity...

When it approaches...you will have a short amount of time to hack the drone, reset it and send it back to base...none the wiser as to our creative acts!

So my fellow creative rebels...this is why one of of you will need to become a hacker!! A creative hacker of course...preferably one with a lot of brain power! Now who might that be?

Greg helps the team to decide.

Ok! Let me introduce you to my assistant...Jarney!! Jarney...this is our new hacker...set them up and plug them in...

Patrick sets brain scanner up on hacker....

Ok. This is the only way we can fight the drones...let me explain...

If you fail to check in..and the drone gets released...your hacker will have to concentrate...really concentrate...actually in their mind...doing this will fill the bar on phone screen up! If you can charge it enough you can make a hack! This will overload the drone...reset it..,.and you'll be safe to carry on with your creative acts! The rest of you might want to think about how you can help your hacker to concentrate...just something you might want to think about....

Jarney...how does all this work? ....

Patrick leads the hacker through the brain scanner demo, until it works and they manage to flip the drone. The rest of the team watches.

Hand Citizen ID out!

Ok! I think our hacker is happy! Gooood!!

However - there is one big issue...the system...the bastards... Feel so threatened by creativity that if you fail to hack the drone and send it away...the system will target you for termination...and these robots...safely asleep at the moment....will come to life and chase you down. If they touch you...you are dead...you're out and you can't continue! You have to get to the rebel base...that's the only place you will be safe. The rebel base looks like this...*points to Jana with a sign*. We have to keep moving the base...for security...we can't let the system find us! When you get to the base - you're safe and when the robots go back to sleep we can continue with our resistance!

The hacker doesn't need to run! I can protect them,,,but I can't protect all of you!

If at least one team member and the hacker can make it through each of the 5 missions...the system will crumble,,,and everything will be awesome!!

Keep an eye on the phone...

Any questions?

LETS GO!!

Saving Mamma Grottole

Project Proposal:

Urban games/Street games have become a really exciting new phenomena in Europe - and the world - over the past 10 years. We all used to play in the streets when were children - but why do we stop playing when we are adults?

George Bernard Shaw famously said: We don't stop playing because we grow old…we grow old because we stop playing!

Urban games are also a really good way for people to connect with places, buildings, history, culture and other people. They can help us see a place in a different way and discover new things and consider new thoughts.

We want to design a street game that allows people to explore the town of Grottole

We'd like to run three workshops and then a final event where people from the town, along with tourists, can play the game.

Ideally we would find a team of people from Grottole to be involved in the research, design and creation of the game.

It would be great for me to have an Italian in the space who can speak both Italian and English.

The first workshop:

- Research information about the town (it's history, people and culture) - collate this material and see what is interesting/important for the people about this place.
- An introduction to simple game design.
- Devise some initial ideas as to what the game could look like and choose an idea to take forward into the second workshop

The second workshop:

- Take the idea and develop it into a prototype.
- Play-test our first ideas within the group or other members of the community.
- Reflect on the play-test and see what we'd like to change

The final workshop:

- Play-test again - a more developed prototype
- Reflect
- Make final adjustments and any final materials required for the game

Then we run the event and invite people to play the game!