

Theatre, Performance and Digital Culture

by

GREGORY MARSHALL

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ABSTRACT

This thesis proposes that the theory of aesthetic agency derived from gaming in digital culture may be used as a lens through which live theatre and performance may be analysed. I argue that the aesthetics, immersion and play with identity in live theatre and performance are informed by digital culture through the behaviour and agency of the participants, be they audience or participants. Using a grounded theory methodological approach, four large-scale outdoor immersive productions and two traditional theatrical productions have been selected to provide a comparative analysis using aesthetic agency.

Aesthetic agency is central to the analysis of immersion and play with identity in the productions selected. Comprising intention, perceivable consequence, narrative potential, transformation, co-presence and presence aesthetic agency is the feeling of pleasure audience and participants derive through the experience of live theatre and performance. Analysis using aesthetic agency in immersive productions examines qualities such as interaction and participation, discovery, understanding social rules, proximity to points of engagement within the performance, the use of narrative or gameplay, liminality and the suspension of disbelief and the use of physical or imaginary boundaries. Aesthetic agency in play with identity uses qualities of transportation, presence and co-presence and is analysed using themes of liminality, ritual, agency and memory which offer the opportunity of real experience within the virtual environments.

The outcomes of the study highlight the opportunities to analyse and understand the meaning making process in live theatre and performance in a new manner through the lens of aesthetic agency derived from digital culture. Through examples, the outcomes show how digital culture theory may be used in live theatre and performance to examine and explain the experience for spectators and participants. The future use of aesthetic agency as a dramaturgical tool then becomes a possibility which may enhance the development process and enrich the subsequent experience of spectators and participants. Further, aesthetic agency may find utility as a dramaturgical tool when used to aid the creation of new live productions.

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Foreword

I have come to this thesis with a background in both live performance and information technology. In 1978, I trained as a classical ballet dancer and I performed with companies both large and small, including the *Israel Classical Ballet*, *Northern Ballet*, *Alexander Roy London Ballet Theatre*, *The Welsh National Opera*, *Vienna Festival Ballet* and *Balletomania* through to 1987, touring the Middle East, North and South America, the Far East and finally Europe and Great Britain. From 2005, my Performing Arts career continued with a vocational teaching qualification and eight years of teaching Performing Arts part-time, and occasional performance work with professional and pre-professional companies through to 2018.

After my dance career finished in 1987, I retrained in IT Computer Studies, allowing me a second career as a Business Analyst, Project Manager and IT consultant. I have been instrumental in implementing mission-critical workflow and document capture systems in global companies for multi-national consultancies.

My Master's degree, completed in 2011, brought the two areas together in a praxis-based research project entitled *Aboutface – Identity Crisis in Social Media, A Live Performance and Research Project* (Marshall, 2011). In this project the specific question asked how the individual is influenced by social media when exploring ideas of online narratives, multi-modal consumption of media, online lives and online immortality or a 'deathless fleshlessness' as Matthew Causey (2006) referred to it in *Theatre and performance in digital culture*. This thesis extends that original research, as I take my initial interest in the virtualisation of the individual and now look at how this informs live theatre.

1. Introduction

This thesis argues that the aesthetics, immersion and identity of live theatre may be informed by digital culture through the behaviour and agency of the participants, be they audience or performers. It argues that live theatre performance theory is changing in light of an emerging digital culture that modifies the nature of liveness itself. It argues that the process of meaning making in live performance can be enhanced through the use of theories derived from digital culture. It is the particular nature of agency that is at the core of this thesis when discussed in terms of digital culture and informs immersion and play with identity in theatre. It is aesthetic agency derived from gaming theory as described by Clive Fencott, Jo Clay, Mike Lockyer and Paul Massey (Fencott et al. 2012) that evokes feelings of pleasure in the audience and participants through a range of attributes discussed in detail in Section 3.5. There is a specific agenda within gaming theory that requires a design approach suggested by Fencott et al. to retain focus, the attention of the player and engender feelings of pleasure. When used as an analytical tool for live theatre and performance these feelings may become the aesthetic of a performance rather than the content of the production that is appealing. Agency as choice described by Astrid Breel (2017), Susan Broadhurst and Josephine Machon (2006) which gives the feeling of control is a component of both gaming theory and performance theory and is discussed further in Chapter 2.

This thesis was first stimulated through arguments regarding live theatre and digital culture from Matthew Causey, Steve Dixon and Philip Auslander. Gaming theory, key discussions of liminality and recent research generated during the COVID-19 lockdown in 2020 extend the concepts of immersion, identity and aesthetics from their digital origins to live theatre and performance. I reason that there is rich new theory upon which live theatre may draw and negotiate the relationship between digital culture and live theatre.

I propose that digital culture exposes users to a wider variety of performative forms that might lead to an acceptance of a broader range of theatrical practices. This is not to be conflated with the notion that the artefacts of digital culture, the appliances and the software, are the expression of digital culture; this is misplaced. The artefacts of digital culture are the vehicles through which the politics of the producer and consumer are enacted. The act of engaging with a broader range of live theatrical practices bears out the user behaviour and conditioning experienced through digital culture. Exposure to online media of many forms such as live video, gaming, blogs, live streamed professional performance, flashmobs and augmented

reality applications increases end user knowledge of performance genres and end users may produce and upload their own content displaying a best representation of themselves.

Two of the main aspects of data coding, as previously proposed by Causey, revealed through grounded theory of digital culture, were those of immersion and identity. He suggests that the digital environment offers an interactive immersive virtual experience and that individuals can undergo shifts, morphing, temporal and spatial reconfiguration (2006: 51). Discourse concerning aesthetic agency was found through investigation into digital culture and described the impact a participant may have on the experience of a performance. Through these findings this research raises enquiry as to how digital culture theory informs live theatre practice and identified aesthetics, immersion and identity as key areas of investigation. This main question provokes three further questions of:

- How does the aesthetics of digital culture inform live theatre practice?
- How do different modes of digital immersion inform live theatre practice?
- How does the identity of the digital self inform live theatre practice?

To analyse these three questions this thesis focuses on the affordances of immersion and play with identity in digital culture. Themes of illusion, proximity, discovery, experience, liminality, ritual, agency and memory are examined with reference to the nature of both immersion and the fluidity of identity across the spectrum of the real world and virtual environments. Gaming theory and discourse regarding liminality and ritual are used to analyse performance styles and productions selected through a grounded theory approach of comparative analysis. This thesis aims to address these interrelated questions by firstly examining their thematic content and secondly by exploring how digital culture shapes live theatre. Gaming theory, investigated in Chapter 2, Chapter 4 and Chapter 5, reveals how agency is more than choice and is involved in action, intention, point of view and level of participation. Further, according to Fencott et al. (2012: 48), aesthetic agency comprises intention, perceivable consequence, narrative potential, transformation, co-presence and presence (see section 3.5 for more detail regarding the structure of aesthetic agency). Gaming theory is derived from digital culture and helps explain in this thesis how the structures used in digital games influence participation and interaction. Performance theory derived from virtual performance helps to analyse identity in the context of digital culture and in comparison, with live performance. Theorists such as Patrick Lonergan (2015), Susan Broadhurst (2006) and

Gary Zabel (2014) describe virtual performance and the ambiguity of identity in a digital context.

Within this thesis it is important to clarify what is meant by live theatre, identity, immersion, audience/participants and what is meant by shaping. By live theatre and the wider term performance I am referring to artistic performative endeavours where the audience is co-present and co-temporal with the performers. The site may be outdoors, site-specific or may be within the context of a traditional theatre space. The audience are normally at the same location and at the same time as the event is being performed, though as is discussed later the concept of liveness in the context of digital culture may have a broader interpretation.

Identity is used within this thesis in terms of play with identity in the context of aesthetic agency whereby the action of aesthetic agency manifests in a transformative process of a subject where they may feel presence (a sense of being somewhere to the exclusion of the real world) and co-presence (the pleasure felt by being with other sentient beings). The transformation of a subject involves their emotional journey and change of role due to their experience within a performance. This is discussed in chapter 4 where audience members undergo implicit role transformation and in Chapter 5 where the characters of traditional theatre performance experience emotional transformation through the content of the play.

Immersion as a feeling is discussed later in this chapter, in Chapter 2 and is the focus of Chapter 4. Immersion can be a mental process where one feels lost to an event or a physical process where one is impacted by sensory effects of an environment or through participating in physical activities. The environment may be synthetic, as in a digital game, or real, as in a physical space, and can create a feeling of immersion in an individual where the process may be synthetic but the feeling is real. Immersion is often associated with choices, actions, challenges and the pleasure of participation.

The term participant is used within Chapter 4 regarding immersion and is discussed in Chapter 2. In this thesis a participant refers to an individual or member of an audience that interacts in some manner with the production or performers. The participant may interact to a greater or lesser extent and, in the case studies examined in chapter 4, a participant may interact with performers that move within the audience space or interact with other audience members. In

Chapter 4 audience members may also be implicitly involved in the performance by becoming subject to observation by the performers.

Shaping is used as a synonym for the term ‘inform’ and describes how live theatre and performance may be analysed and affected in a nuanced manner through the theory of digital culture.

The purpose of this thesis is to demonstrate the utility of using aesthetic agency as a lens through which to analyse live theatre and performance. While there is recognition of some live theatre forms having a game like structure and Sarah Theil analysing the roles of audience in participative theatre (2017) in terms of gaming roles, this is the first time it has been proposed to use aesthetic agency from digital culture as an analysis tool. The analysis using aesthetic agency will be applied to two forms of live production; four large-scale outdoor immersive performance and two traditional theatrical productions where the content references digital culture and play with identity. The number and type of productions allow for comparative analysis as recommended when using a grounded theory approach. The two topics investigated to illuminate the nature of how live theatre is informed by digital culture are immersion and play with identity, identified as among the stronger qualities derived from digital culture.

The dispositions of aesthetic agency, learned in digital culture, mean it may be possible to perceive and desire interaction differently, and make choices about our identity in new ways in live theatre and performance. Immersion and identity are each distinct from each other, immersion involving qualities of interaction and participation and identity involving qualities ascribed to individuals and groups. Aesthetic agency ties them together and this can be reflected in live theatre and performance in form and content. In this thesis live performance in the United Kingdom will serve as a source for exemplar case studies and digital performance available online will serve as a source for performance based in digital culture. The case studies will be analysed and compared through the lens of aesthetic agency with reference to immersion and identity. This research was conducted over a period of eight years and utilised a qualitative research approach of Grounded Theory. Grounded theory allows for the development of theory to emerge from the process of data gathering and analysis. Kathy Charmaz in *Constructing grounded theory* states that this approach provides a systematic yet flexible set of guidelines for collecting and analysing qualitative data in order to construct theories from the data themselves (Charmaz 2014: 1).

The outcomes of the study highlight the opportunities to analyse and understand the meaning making process in a new manner through the lens of aesthetic agency derived from digital culture. Through examples, the outcomes show how digital culture theory may be used in live performance to examine and explain the experience for spectators and participants. The future use aesthetic agency as a dramaturgical tool then becomes a possibility that may enhance the development process and enrich the subsequent experience of spectators and participants. Digital culture theory, for the purpose of this thesis, includes but is not limited to the concept of a digital aesthetic, ideas of virtual space, immersion in visual environments, the notions of flow and presence, the representation of self in virtual spaces and the process of meaning making in digital performance.

Outside the scope of this thesis is the discussion regarding what might be called the ‘gamification’ of live theatre. The intention of this thesis is to identify the strengths of theory derived from digital culture, and game theory in particular, not the application of video game techniques and practices to ‘gamify’ live performance. In order to demonstrate that there is strong theory available in digital culture which will enhance the experience of audiences and participants in live performance. This approach will be useful to aid the development of live production through visualising a production through the lens of digital culture, emphasising the approaches used in gaming theory and identity in virtual performance. The theory used is referred to by Fencott et al. (2012) as aesthetic agency and perceptual opportunities which are discussed in detail in section 2.2 and section 3.5 of this thesis. There are some similarities that have been noted between gaming and live performance; these similarities might include game levels, goals and objectives and a certain amount of competitive behaviour. Sara Thiel (2017), Josephine Machon (2013) and Marvin Carlson (2018) all note the resemblance some participative forms of theatre have to video games, as does the work of Jason Warren (2017) when comparing the design of immersive theatre to that of a game’s design in the literature review (section 2.2).

Immersion in digital culture has two aspects: cognitive and sensory immersion. When immersion is discussed, generally it is understood to mean multimodal sensory input (Riva and Waterworth, 2014: 205) or surrounding sensory perception of aural and visual, also known as scopic sense, and perhaps tactile senses in stimulus. Cognitive immersion occurs when an individual or a group of individuals is engrossed in an activity to such an extent that they lose track of time and their environment. Immersion in live performance may be ergodic or non-

ergodic (interactive/active or non-interactive/passive) (Calleja 2014: P.226) and may also be cognitive and/or sensory. The forms of live theatre that are immersive include practices such as street theatre, parades, large scale outdoor events and also an emerging form of role-play theatre where the audience are the active participants in practices such as the masked works of Punchdrunk. These practices provide rich source material to investigate how the aesthetic and practice of immersion in digital culture is reflected and informs current live theatre practice. Immersion is investigated in Chapter 4, comparing four large scale outdoor theatre productions, *As the World Tipped*, *Wings of Desire*, *The Four Fridas* and *The Voyage*, using themes of illusion, proximity, discovery and experience.

Postings online in social media about oneself or others epitomise the behaviours associated with the representation of identity (Lonergan 2015:33). Social media provides an opportunity for the individual to rewrite their own identity online. Using social media as an example, individuals are able to engage in such behaviours as creation of a representation of the self, commenting on the representation of others, enhancing and augmenting their own representation and that of others, participating and interacting with virtual events and engaging with others in a virtual manner. As Patrick Lonergan states in *Theatre and social media* ‘our social media identities are not just a representation of who we think we are, but a performance of how we wish to be seen by others’ (Lonergan 2015: 28). Lonergan continues that ‘social media platforms thus provide a space in which individuals and institutions offer performances of themselves for public consumption’ (Lonergan 2015: 31). The ‘performance’ of an individual online potentially goes out of their control where others are able to comment upon postings, effectively being able to rewrite another’s online identity (Lonergan 2015:29 - 30). The fluidity of identity represented in live performance is analysed using themes of liminality, agency and memory, those features of current discourse will be highlighted through a comparative analysis of the selected productions of *The Nether* and *Ugly Lies the Bone* in Chapter 5. *The Nether* and *Ugly Lies the Bone* represent what I refer to as mainstream theatre and Stephen Dixon refers to as traditional theatre (described in more detail later in this section). Aesthetic agency is re-articulated in Chapter 5 using the form of traditional theatre where the content of the plays themselves refer to digital culture to demonstrate that aesthetic agency provides utility as a lens through which to analyse the aspects of transformation, co-presence and presence from the theory. Sherry Turkle in *Alone Together* (2011) is able to cite actual case studies when discussing the effects of digital culture upon individuals and Patrick Lonergan in

theatre and social media (2016: 3-4) goes further to draw an analogy between online performance and the behaviour of actors. This thesis aims to show that the effect of digital culture upon individuals play with identity may be analysed through the medium of live traditional theatre and uses character within the plays as the subject of analysis. Further to this, the methods of perceptual opportunities are shown to act upon the characters with the plays as an additional set of analytical tools.

The meaning of ‘digital culture’

The term *digital culture* can be broken into two parts: the term ‘digital’ refers to core practices which require enablement by digital technology. The term digital typically refers to digital computing and the use of computer programming to create effects and environments. Effects can include audio creation and audio controls, lighting controls, computer-generated graphics and animation, digital projection and the creation of entire virtual worlds. Digital can also refer to the digital technology used in mobile phones and on social networks. When groups of people use digital technology and this affects their social behaviour, it is referred to as digital culture. Digital culture is alternatively known as cyberculture or internet culture. According to Mark Deuze in *Participation, Remediation, Bricolage: Considering Principal Components of a Digital Culture* it could refer to a virtual culture inside the society itself (Deuze, 2006: 63 – 75). In the context of this thesis, I am using the term ‘digital culture’ to describe the social and artistic behaviours associated with the use of digital technology.

Online behaviour is shaped by user interaction and is also managed by the publishers of online and mobile applications (Foer 2017: 2). Social media environments are specifically created to encourage the generation of content by the users. In *World Without Mind – The Existential Threat of Big Tech*, Franklin Foer indicates that the target for large technological companies - especially the search engine and social media giants - is our attention, both their most precious assets and our own. Foer suggests that the tech giants have abused us and we are allowing our most basic mental functions to be ‘outsourced to algorithms allowing our secrets to be stored and mined on servers’ (Foer 2017: 8). Summarised as ‘a wealth of information producing a poverty of attention’ (2017: 86), Foer explains that the abundance of online material has created a new form of scarcity and it becomes almost impossible to seize the attention of the audience.

There are several terms used within this thesis which are closely related and specific to the topic under discussion but may confuse if seen to be used interchangeably. These are defined in the glossary in Section 8.10. Terms commonly used in this thesis are ‘Digital Culture’, ‘Virtual Reality (VR)’, ‘Real World’, ‘Real Identity’ or ‘Real Self’, ‘Virtual Environment’ and ‘Artificial Intelligence (AI)’. Mark Grimshaw comments upon virtuality in *The Oxford Handbook of Virtuality* as something that permeates the human world (Grimshaw 2014: 4) and continues by suggesting that virtuality can be understood as a system permitting communication without the proximity of communicators (2014: 7). The identification of people within the real world and virtual worlds may be described using the terms ‘individual’, ‘audience’, ‘participant’ and ‘performer’. Patrick Lonergan observes that ‘even if we are ourselves on social media, there is also evidence that the self we perform online may be different from the self we show in the real world’ (Lonergan 2015:32). An individual is a single observer of or participant in the performance. The audience becomes *communitas*, experiencing liminality and the liminal space of theatre together, usually watching the performance, and may also be participatory or interacting with the performance fusing communal recreation (Machon 2013: 39). Participant refers to an individual who has become involved in the participatory or interactive performance or may be a dedicated performer. A performer is an individual dedicated to delivering performance¹ and may be involved in the interaction with the audience.

Philip Auslander in *Liveness: performance in a mediatized culture*, (2008) sets out his theory of liveness and revises this in his presentation at *Digital Liveness* (Transmediale 2011), placing digital liveness in a historical and philosophical perspective. Auslander provides a bridge between digital performance and live performance, defining the methods available, which deliver either full live performance or mediated performance. Auslander argues is that liveness is not better because it was first but that mediatised performance has as much of a human experience as the live experience. While Peggy Phelan in *Unmarked* argues that theatrical performances cannot be mediated and still be considered performances: Phelan suggests that performance’s only life is in the present and that it cannot be saved, recorded, documented, or otherwise ‘participate in the circulation of representations of representations’. She continues

¹ Performance in the Performing Arts world is varied, including such methods as street theatre, circus, promenade and site specific performance with co-spatial and co-temporal audience and performer, though it can include mixed media performance, hyper-reality, intermediality, multidisciplinary practice, technologically mediated and telematic performance. By theatre, I am referring to the traditional indoor theatre with a seated audience and a stage for the productions of dance, drama and singing for example.

that 'performance's being becomes itself through disappearance' (Phelan 1993:146). The difference between the positions of Auslander and Phelan caused some debate. Phelan's on the disappearance and Auslander's upon the continuing liveness of mediated performance and recording. This debate seems to have moved on since the 1990s. Live performance is now experienced in many different ways without any argument as to whether it is live in the terms Phelan would describe. Live public screenings, event cinema and intermedial productions are commonplace being available in public spaces, in cinemas and in theatre spaces. There are very few contemporary productions that do not now use audio reproduction or visual projections (Dixon, 2007:647). In a digital culture it can be argued that there is greater scope for new forms of liveness and not just the singular form to which Phelan ascribes.

Stephen Dixon in *Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation* asserts that digital developments are now

'so deeply embedded in the development of performance, as a tool if nothing else, that they have become assimilated and absorbed for perpetuity, as basic as the cog for transport, but no longer blatantly barnstorming the stage as the wheel itself' (Dixon 2007: 647).

Dixon's argument is similar to that of the postdigital argument where the integration of technology is expected, rather than experimentation (Auslander 2018), (Cascone 2000), (Negroponte 1998). Causey in *Postdigital Performance* describes a postdigital culture as a 'social system fully familiarised and embedded in electronic communications and virtual representations, wherein the biological and the mechanical, the virtual and the real, and the organic and the inorganic approach indistinction' (Causey 2016: 432). Causey spent a decade assembling the analysis of the post digital and assesses the key features of digital culture to be the change in the identity of the human subject and the immersive and interactive nature of the digital world (2006: 56).

Digital performance sits in the area Dixon refers to as computer-mediated performance (2007: xi). In this category there is a wide range of what may be referred to as virtual theatre, virtual reality and the delivery of digital cultural artefacts. A specific category described by Dixon is Cyber-Adapted Theatre. Cyber-adapted implies a totally traditional performance without any use of technology at all but using performance techniques and mise-en-scène to signify

technology and our modified relationships within the digital. Therefore, Cyber-Adapted Theatre and Traditional Theatre might sit together in Dixon's taxonomy, while Digitally Aided, Digitally Assisted, Multimedia and Digitally Enhanced Theatre might all sit together as forms of intermedial theatre. In *Cybernetic-Existentialism: Freedom, Systems, and Being-for-Others in Contemporary Arts and Performance* Dixon extends his arguments regarding theatre practice when he makes a call to view performance through posthumanism and what he terms an authentic reality (Dixon 2020: 14 - 15).

There is a range of performance types in the genre of digital performance (Giannachi 2004: 151); live performance online, telemetric performance (point to point streamed), real-time online video gaming, live performance with augmented reality, live performance with virtual reality, bodies enhanced by or with computation and/or bio-technology, networked interactive performances, event cinema, Secret Cinema (interactive roleplay with cinema), live cinema (real-time cinema performance), app performances / social media performances (performance specifically for mobile apps and social media), headphone theatre (live performance augmented with headphones), GPS enabled performance (live performance with mobile GPS component) and embedded digital experiences (digital immersive installations using a number of technologies). Of these, event cinema, or alternative content screening, has arguably become the dominant commercial format generating revenues of roughly £53.7 million in 2019 in the UK (Statista 2020). Event cinema means that the audience is co-temporal with the performance but not co-present with the performers or all of the audience. Event cinema can include live theatre, sports, concerts, gaming and exhibitions. The performance is transmitted via a digital network, satellite and the internet, to a cinema, web browser, mobile phone or outdoor projection, and presented using a digital projector or screen².

Digital culture context

Despite continued experimentation with emergent technology, discourse continues as to whether we are still in a digital or a postdigital age. Auslander describes a changing landscape of liveness in the context of digital culture (Auslander 2018) as do Gabriella Giannachi and Nick Kaye in *Performing presence* (Giannachi and Kaye 2017) and Josephine Machon in *Immersive Theatres – Intimacy and Immediacy in Contemporary Performance* (Machon 2013).

² In 2019, event cinema in British cinemas generated revenues of roughly £53.7 million, and globally generated approximately \$1 billion (Statista 2020).

Causey and Dixon argue we are postdigital, as does Nicolas Negroponte, ‘the digital revolution is over’ (Negroponte 1998). The evidence of Auslander, Giannachi, Kaye and Machon indicates we are still in a digital age with much to explore.

Vincent Miller in *Understanding Digital Culture* discusses the impact of the digital in a range of aspects; from economics, media, politics, surveillance and warfare to more performative modes of digital identity, social media, the immaterial, immersion and gaming (Miller 2011). While still relevant much has changed since Auslander in 2006 and Gianachi in 2004. Bhavin Turakhia claims the rise of everyday technology of social media, cloud computing and Artificial Intelligence applied to Big Data is changing our lives (Turakhia 2020). Wearable technology of Fitbits, Airpods and smart watches, driverless cars and voice recognition in virtual assistants such as Alexa and smart homes have all matured in the last decade. Foldable displays, tablets and smart phone technology have improved significantly to make access to the internet more convenient and enable content. In terms of performative aspects of technological change in the last decade, improvements in video mapping (Halls 2017), intelligent lighting (Gander 2017: 65), 3D projections, live motion capture, and holographic displays (Bitterello 2014: 105), have all been used in live performance

Most recently the coronavirus outbreak and subsequent lockdowns have encouraged the propagation and use of virtual technology, as we are working and socialising from home. Virtual conferencing software for business and social interaction such as Teams, Zoom and HouseParty have all increased users (The tech industry's winners and losers in lockdown 2020). Zoom specifically stated that they had increased their users from 10 million a day to 200 million a day, which includes 90,000 schools across 20 countries that have taken up remote education (Yuan 2020). Entertainment through streaming, gaming, virtual quiz and virtual fitness have all experienced increases of 30% to 100% growth (The tech industry's winners and losers in lockdown 2020).

Historical context of digital culture

Modern digital culture including social media, gaming and personal digital devices has come from a very different background. Early in the development of digital technology, there was a hope to inspire a revolution in computing, just as there was a social revolution in the late 1960s. Foer describes this time as a counter-culture not only socially but in technological terms (Foer

2017: 13). Computing technology was first used to assist with code-breaking and the development of the nuclear bomb in The Manhattan Project during the 1940s, and developed into the commercial world of mainframe computing in the 1950s, dominated by IBM. Engineers across Silicon Valley articulated a rousing sense of idealism; where ‘politics failed to transform humanity, computers just might’ (Foer 2017: 13). It is a considerable achievement that today there are approximately 7.5 billion people on the planet and approximately 4.5 billion, over 50%, can connect to the internet³. In the UK, as of July 2021, this percentage is closer to 86% connected to the internet. Concerning digital access, the major growth in the last ten years has been through mobile technology. 93% of adults in the UK personally own or use a mobile phone, while 66% of UK adults have a smartphone. There are 39.5 million 4G mobile subscriptions, and in total there are 91.5 million mobile subscriptions in the UK (OFFCOM 2020) equivalent to 1.5 subscriptions for every man, woman and child in the population. Of the 4.5 billion internet users, active social media users have passed the 3.8 billion mark, with this number increasing by more than 9 percent (321 million new users) since this time last year (Smart Insights 2020), having trebled in number since 2010. Digital culture is therefore much more accessible than in previous years and is dominated by social media, search engines and gaming. Gaming is very successful in digital delivery and the global revenue generated by gaming is greater than the combined revenue of the global film and music industry combined. For additional information and statistics regarding the gaming industry see Appendix 8.7.

Live theatre context

Liveness has concepts in common with aesthetic agency with regard to performance theory of narrative, co-presence, presence, and perceivable consequence. Rose Biggin in *Immersive Theatre and Audience Experience: Space, Game and Story in the Work of Punchdrunk* explains how the agency of participants in immersive theatre allows for the development of narrative so that they create their own experience with a strong sense of authorial control (2017:92). Biggin argues that narrative (Biggins 2017) is a key component of both live theatre and digital culture particularly in the progression of gameplay. Co-presence according to Fencott et al. is the aesthetic pleasure of being present with other sentient characters in a game while presence is

³ The internet as we know it today is attributed to Tim Berners-Lee, who developed the first web page and web browser in 1989, though this evolved through a large succession of other communication methods such as those used by CERN in Switzerland and other protocols companies used to connect for email (Internetlivestats.com 2020).

the sense of being part of and in the game world to the exclusion of the real world (Fencott et al. 2012). Erica Fischer-Lichte in *The Transformative Power of Performance: a new Aesthetics* (2008) suggests that the co-presence of actors and spectators in a performance transforms the participants and aids the emergence of meaning (2008: 181). Presence is described by Josephine Machon in *Immersive Theatres* as the audience-participant-performer-player fusing their imagination with their bodily interaction and other human performers (2013: 62). Machon further describes presence as that which is before the senses creating a sense of ‘being there’ (2013: 44) and requires that the intimacy or ‘aesthetic distance’ places the perceiver within the performance (Machon 2013: 39). In live theatre the sense of ‘being there’ implies being co-spatial as well as co-temporal. Digital culture achieves a virtual form of co-spatiality through digital communications which is regarded by Auslander as still a form of liveness. A perceivable consequence, according to Fencott et al., is seeing the results of our actions (2012: 48), specifically in gameplay from which we gain pleasure. Bill Blake in *Theatre & the digital* sees live theatre as the perfect context for realising an immediate and immersive pleasure in the whole process of art making (2014: 24).

Contemporary live theatre practice provides a valid vehicle through which to examine how live performance might be informed by the theory of digital culture. The UK has the highest density of professional theatres anywhere in the world, in the West End in London, and The Theatres Trust statistics list nearly 5000 theatres that have existed in the UK, with around 1300 still in active use (Theatres Trust 2018). There are approximately 250 active theatres in the London area and 66 in the Society of London Theatres (SOLT) which are the main West End theatres. The SOLT website statistics show that there were 15,315,773 attendances annually up to 2019, generating an income of over £798,994,920 per annum. Attendance had been growing steadily at 5% per year until 2018, when it went down by 1.4%, though revenues were up by 4.3% in 2018 (SOLT 2020). The statistics indicate that there has been steady growth in attendance and income over the last decade supporting the argument that live theatre is buoyant and is not in decline⁴. Figures from the equivalent site in the US, Broadwayleague.com, seem to support

⁴ However, not all is as good as it sounds in London theatre; not only has the COVID-19 lockdown stopped all live performances, even before this it was becoming increasingly difficult to fill the larger venues in London. Matt Trueman in his blog cites the only two successful long-running shows in large theatres of London as being *Wicked* (2006 to present) at the Apollo Victoria (2,304 seats) and *The Lion King* (1999 to present) at the Lyceum (2,100 seats). He continues to discuss that The Palladium (2,236 seats) has struggled to find a stable tenant for years, and takes on a string of short-run productions ever since *I Can't Sing* (2014) shut within seven weeks, losing £4 million in the process. Likewise, The Dominion (2,136 seats) has had to depend on short-run productions since the closure of *We Will Rock You* (2002 - 2014). The problem is the risk of running expensive shows in large venues. Trueman

this growth trend as a western theatre development, though Broadway attendance is slightly lower than London West End at 14,770,000 attendances annually (Broadwayleague.com 2020). With so much live theatre available it is not surprising that the United Kingdom has become an epicentre for innovation and experimentation in immersive theatre practices. According to Pamela Sterling and Mary McAvoy, companies such as Shunt, Punchdrunk, CoLab, Coney, curious, and dreamthinkspeak influence the production of immersive productions worldwide (2017: 93). This presents a rich source of digital culture influence and is discussed further in Section 2.2.

Though this thesis is not framed within the context of the pandemic, at the time of writing during the COVID-19 lockdown, live theatre venues are under tremendous pressure to survive. As a result of this, outcomes reinforce the concept that live theatre will have to adapt using digital technology to endure. Lanre Bakare of *The Guardian* reported that 70% of our performing arts companies will be out of business before the end of this year and more than 1,000 theatres around the country will be insolvent and may shut down for good (Bakare 2020). Some theatres are fighting back and there is a surge in the presentation of live theatre on terrestrial TV and streaming services which has seen an increase in what is usually referred to as Event Cinema, with a combination of free to view and paid services generating raised audience numbers. *WhatsOnStage* highlighted more than 50 live recorded productions from such companies as The RSC, The Royal Opera House, The Globe, The Old Vic, The Met and Cirque Du Soleil (*WhatsOnStage* 2020) as being available several months into the lockdown.

Structure of the thesis

I argue in this thesis that live theatre practice is informed by digital culture and that case studies may be examined through the lens of aesthetic agency theory. The introductory chapter describes the research questions and background to the research in the areas of digital culture and live theatre and performance. Some relevant terminology is discussed and described in this chapter to aid and clarify the discussions regarding real-world interactions and virtual world interaction, those which take place in a digital context.

shows that the economics of running successful shows in smaller-scale venues becomes more viable. London's most prominent recent musicals of *Matilda* (2011 - present), *School of Rock* (2016–2020), *The Book of Mormon* (2013 - present), *Kinky Boots* (2015 - 2019), *Hamilton* (2017–present) and *Harry Potter and the Cursed Child* (2016 - present) are playing in venues between 1000 and 1500 seats.

Chapter 2 Literature Review is presented in two main parts; performance studies and digital culture. Performance studies explores the aesthetic of live performance, liveness, meaning making and how gaming theory links to immersion in live performance. Digital culture is discussed in terms of digital aesthetic, immersion and identity to highlight the theoretical work in these areas and to support the structure of the argument of this thesis. Immersion is investigated in terms of virtual and real environments, and the interaction with those environments in terms of presence and flow. The concept of presence and the sense of being there are described through works by Machon, Weibel and Wissmath while the concept of flow is described by Csikszentmihalyi and Fencott et al. from gaming theory in terms of challenge, skill and agency. Identity is reviewed through the theoretical works of Arnold van Gennep and Victor Turner regarding liminality and ritual, and extended to concepts of ambiguity of identity and artificial agency through Broadhurst and Zabel. Digital aesthetics looks to Fencott et al., Fischer-Lichte and Kwastek, drawing together the concept of aesthetic agency from gaming theory and aesthetic distance. The exploration of live performance through the lens of gaming theory draws together the two ideas of performance studies and digital culture and provides an opportunity to address this area of study.

Chapter 3 Approach and Methodologies describes the progression through this thesis with the use of Grounded Theory and analysis of selected live performances using gaming theory and detailed discussion concerning liminality and ritual. Using grounded theory, as proposed by Glaser and Strauss, the questions evolve through data gathering and field work as to how digital culture informs immersion, identity and the aesthetics of live performance. Further methods and analysis describe web searches, interview and the development of a model of identity designed to aid the location of behaviours of individuals when navigating real and virtual environments. Two schematics are included in this chapter; aesthetic agency schematic and a model of identity. Aesthetic agency is a structure applied to gaming theory by Fencott et al. who further describe the concept of perceptual opportunities. Aesthetic agency and perceptual opportunities are used in Chapters 4 and 5 when analysing selected productions. The model of identity is used in chapter 5 to help navigate the relationship between the real self in the real world and the virtual representation of self in virtual environments.

Chapter 4 Immersion and the Live Experience describes the comparative analysis of four large-scale outdoor theatre productions of *As the World Tipped*, *Wings of Desire*, *The Four Fridas* and *The Voyage*, where each was able to demonstrate the strengths of certain aspects of

immersion in live theatre and some identifying weaknesses in the delivery of immersion in live theatre. The chapter focuses on gaming theory from Fencott et al. and investigates themes of illusion, proximity, discovery and experience. The concept of aesthetic agency is thus drawn out where the interplay of intention, perceivable consequence, narrative potential, transformation, co-presence and presence help build the immersive experience.

Chapter 5 Identity and the Digital Made Real presents a comparative analysis of two recent plays called *The Nether* and *Ugly Lies the Bone*, and investigates how identity in digital culture informs live theatre. Identity is analysed on a spectrum from virtual environments to the real world using themes of liminality, ritual, agency and memory which offer the opportunity of real experience within virtual environments and the real world. The chapter concludes that it is elements of aesthetic agency comprising intention, perceivable consequence, narrative potential, transformation and co-presence which aid character transformation within contemporary plays. Aesthetic agency is employed to demonstrate the complexity of self-identity and the relationships with others, where choice can aid personal development and awareness.

Chapter 6 Conclusion The thesis concludes by underscoring the findings, limitations and the potential for future research. The conclusion to this thesis firstly theorises that modes of involvement in live theatre that can be derived from digital culture include experiential performance, discovery, greater stimulus through illusion and proximity, implicit role play, multiple modes of interaction and participation. It secondly describes the role of agency in immersion, identity and shaping the aesthetics of contemporary performance. The thesis offers much potential for future research in related fields of live digital performance, live music performance, live dance and extending into areas of psychological research.

In the introduction, I presented the concepts surrounding my argument that immersion, identity and the aesthetics of live theatre are shaped by digital culture. In the next chapter, I will qualify this line of reasoning through the evidence of other theorists and practitioners in the literature review.

2. Literature Review

2.1 Introduction

This thesis investigates how digital culture informs live theatre and specifically looks at the topics of aesthetic agency, immersion and identity through the lens of gaming theory. I propose that the process of meaning making in the analysis of live performance can be enhanced through the use of theory derived from digital culture. Digital culture is defined as the behaviours associated with the use of digital technology, the consumption of content and interaction with applications and others using digital devices.

This literature review is structured in two sections: 'Performance Studies' and 'Digital Culture'. In Section 2.2, contemporary performance studies include literature from Erica Fischer-Lichte, Broadhurst and Machon, Auslander, Katja Kwastek, Adam Alston, Astrid Breel, Ric Knowles, Rose Biggin and Jason Warren. It focuses upon the aesthetic of live performance, liveness, meaning making and the linkage between gaming theory and immersion in live performance. Live performance practice from *Les Enfants Terribles* and *Punchdrunk* demonstrate how current practice engages the audience through agency, immersive practice and the process of meaning making.

In Section 2.3 concerning digital culture, the concept of aesthetic agency through the work of Fencott et al. is discussed. The root of aesthetic agency in gaming theory is examined through the works of psychologist Mihaly Csikszentmihalyi and gaming theorists Tommy Otzen, Clive Fencott, Jo Clay, Mike Lockyer and Paul Massey, David Weibel and Bartholomäus Wissmath and Mark Grimshaw, John Charlton and Richard Jagger to highlight the concepts of presence and flow. The writing by Turner and van Gennep which date back to the beginning of the twentieth century examines the concept of liminality and the link to digital virtual environments. The related practice of ritual is extended by Maria Bittarello (2014), Arpad Sakelaris (2009) and Machon (2013), agency by Gary Zabel (2014) and memory is reviewed through the works of Giuseppe Riva and John Waterworth. Intermedial performance practice from *Blast Theory* demonstrates how digitally enhanced performance practice involves and engages participants and extends the boundaries of live performance.

2.2 Performance Studies

Fischer-Lichte in her book *The Transformative Power of Performance: a new Aesthetics* (2008) discusses the purpose of performance art and sets out a theoretical framework for performance analysis. In an introduction by Marvin Carlson, the initial proposition is presented in the academic historical context of American and European performance and theatre studies. Carlson cites the Russian formalist Victor Shlovsky to articulate the starting point of Fischer-Lichte's discourse, and in more detail, that the 'technique of art is to make objects unfamiliar, to make form more difficult, to increase the difficulty and length of perception. [...] Art is a way of experiencing the artfulness of an object; the object is not important' (2008: 7). Fischer-Lichte suggests that there is a new aesthetic in performance as an art event in its own right, (2008: 161) and that the performance transforms the participants through the co-presence of actors and spectators and the emergence of meaning (2008: 181).

Fischer-Lichte promotes a new aesthetic of performance, basing her arguments on theorists of ritual, liveness and performance such as Turner, Auslander and Schechner. In doing so she brings together the influences of the art object, the social and the technological, demonstrating how not only the relationship between artist and audience is blurred, but also 'questioning the borders between reality and fiction' (Fischer-Lichte 2008: 203). Working systematically through her theoretical framework: co-presence/co-spatial bodies in performance (performative events), materiality in performance (what makes/is made in performance and the emergence of meaning (the hermeneutic understanding of performance) Fischer-Lichte draws together threads relating to remediatisation, presence, liminality and transformation using examples from current practitioners. She argues that her approach should 'not replace but add to established theories of the aesthetics of work, production and reception' (2008: 181).

Fischer-Lichte, in discussing her ideas of meaning making in performance, uses the work of Richard Schechner, Schechner's most notable work *Performance Theory* (1988) is one of the fundamental pieces of writing on the subject. In this work, Schechner provides definitions of theatre, ritual and performance and places them in the context of a wider anthropological study. His study is supported by many tables and diagrams which help describe the relationships between differing forms of ritual, theatre and performance. His 'fan' and 'web' diagrams help place in context the linkage between the spectrum of performance making from rites and ceremonies, theatre performance and ritualisation. Schechner shows how the everyday action has been transmuted into one form of performance or another and brings logical structure to the concept of ritual and theatre. Each of the sections of this book; 'Actuals', 'Drama-script-

theatre', 'From ritual to theatre and back', 'Towards a poetics of performance', 'Selective inattention', 'Ethnology and theatre' and 'Magnitudes of performance' are fully supported by schematics, graphs and tables. In the chapter 'Magnitudes of Performance' he cites Turner (1985:295 – 7) stating that 'theatre is one of the many inheritors of that multifaced system of preindustrial ritual which embrace ideas and images of cosmos and chaos that have passed this unified liminal configuration through the analytical prism of the division of labour' and follows up with a comprehensive table of 'Performance time/Space/Event Chart' (2012:292). This table could easily form a taxonomy and helpfully includes examples for each combination of time and space. Schechner shows how historical ritual and anthropology have informed the practice of modern performance.

Adding to the work of Schechner, Susan Bennett in *Theatre audiences: a theory of production and reception* (1997) addresses not only contemporary interpretations of audience as active participants in a cultural context but also investigates the historical relationship of audience, their role and performance, referring to Dionysian theatre and up to contemporary multicultural theatre. Bennett's analysis of theories of reading and viewing, particularly her opinion regarding the authorship of meaning contextualises the role of the audience precisely. A wider view is taken by Bennett when she discusses the nature of viewing across cultures and how the differences in audience role comment on the cultural context of the society in which the theatre is executed. Bennett's analysis demonstrates a key approach to this research regarding digital culture and performance. For example, the vehicle of VR and social media is an interaction of a democratic audience and is in itself similar to the mass Dionysian audience representing as it did the majority. The connection goes further; social media like Greek theatre illustrates the direct relationship between societies at every level and includes the audience as active participants. It is relevant to this thesis that Bennett sees the relationship between theatre and active participants as a cultural phenomenon, and analyses the theories of spectatorship and the practice of different theatres and their audiences.

Auslander, in *Liveness: performance in a mediatized culture*, questions the validity of liveness when so much of real time theatre is produced through mediatised means. Specifically, he questions the status of live performance in a culture dominated by mass media. Mass media has blurred the boundary between what is live theatre and what is not live; Auslander argues that something he values – live theatre – has a reducing value and presence. In explanation, Auslander states that 'Live performance now often incorporates mediatization to the degree

that the live event is a product of media technologies' (2008:25). In chapters on Live performance in a mediatised culture, discourse of authenticity in rock culture and the legal aspects of live performance in a mediatised culture Auslander uses a case study approach to how mediatisation affects live performance. Auslander supports his argument by drawing on the theory from Herbert Blau and Peggy Phelan. Blau suggests that it is the actor's mortality that is the subject of the performance as the actor is right there dying in front of your eyes (2008:71). Phelan suggests that 'without a copy live performance plunges into visibility, in a maniacally charged present, and disappears into memory, into a realm of invisibility and the unconscious where it eludes regulation and control' (2008: 128). However, Auslander argues that liveness is not better because it was first but that observation of a mediatised performance is as much of a human experience as the live experience. Auslander's chapter on intellectual property rights and copyright regarding live and mediatised performance identifies that the actual live performance cannot be copyrighted as it is ephemeral and cannot be repeated.

Auslander proposes a taxonomy of liveness which actually lacks the detail of other analyses identifying 'Classic liveness', 'Live broadcast', 'Live recording', 'Internet Liveness', 'Social liveness' and 'Website go live' (Web 2.0). In conclusion, Auslander states that 'at any given historical moment, there are dominant forms that enjoy much greater cultural presence, prestige and power than other forms' (2008: 187) and continues that 'at present, television is the dominant cultural form' and that 'mediatised forms still enjoy far more cultural presence and prestige – and profitability – than live forms. Auslander's view was that live performance and mediatised forms compete for audiences in the cultural marketplace⁵, and that mediatised forms have gained the advantage in that competition (2008: 6). However, Auslander in his *lecture Liveness Revisited* at the NEH Institute in 2018 moves his argument on concerning current technology. He offers a more rounded thesis that liveness, when mediatised, is contingent on the 'achievement demanded of consciousness' (Auslander 2018). This argument goes further when Auslander defines the audience response specifically; he states that the spectator's response is not cued or dictated by the object of our spectatorship, but rather the response is to a claim by the object of our attention and an accomplishment on the spectator's part. It is the spectator's response through which liveness occurs, whether through mediatised liveness or physical liveness.

⁵ This was probably simpler in 2008, while today's mediatised forms include online and streamed content which now compete for the cultural marketplace.

Jason Warren in *Creating Worlds – How to Make Immersive Theatre* categorises the interpretation of live theatre as lasting ephemerality. He explains that live performance offers a paradoxical experience; that the work can be both ‘fleeting and only of the moment, never to be repeated in any form, yet it also lasts in the receiver’s embodied memory of the event, a pleasurable and/or disquieting impression that remains’ (Warren 2017: 43). It is memory that leaves us with our own most evident idea of self. And it is the re-presentation of those memories to others that identifies our self to the outside world. The memory of self is, however, an interpretation. In a digital context, memory can be represented by data and is perhaps eternal, and not the fleeting interpretation of a moment. Foer expresses this digital capability as being an extension of our memory; that we have outsourced basic mental functions to algorithms; we have handed over our secrets to be stored on servers and mined by computers (Foer 2017: 8). Giannachi in *Towards an aesthetic of virtual reality* expresses the deposition of experience as virtual reality being not only a reversal of space and a theatre but an archive, a place of memory, a repository for humankind’s past, present and future plans, activities, dreams and failures (2004: 151). Giannachi explains that virtual theatre consists of a performative component, which takes place through the viewer’s performance of the work and its disappearance into memory. As virtual performance is remediated Giannachi also suggests it is re-arriving (Giannachi 2004: 6 -7), and the ability to remediate and (re)arrive, as Giannachi suggests, creates an everlasting memory. Auslander in *Reactivations* argues that he can take this one step further; while live performance derives its power from disappearance (2014: 2), the documentation of performance makes it not ephemeral (2014: 4). Furthermore, the reproduction of performance is a new live form; remediation does not allow him to experience the performance in its original circumstances, but it brings the performance to him, to be experienced in his temporal and spatial context (2014: 46). Auslander argues from the point of view of the audience, where new experience lays down new memory. The difference with reproduced performance as a new live form is that there is far less opportunity for agency for an audience member. For an audience member in a live immersive context or a participant in a live virtual experience there is more opportunity for agency. Auslander suggests that the ephemeral nature of liveness gives performance its power and currency; it is choice that validates the perception of the participants.

Astrid Breel in *Conducting Creative Agency The Aesthetics and Ethics of Participatory Performance* (2017) examines in detail the part agency plays in participatory productions.

Breel does this through analysis of relationships between performer and participant, the participant's embodied experience of doing within the performance, the creative contribution they make and the demand characteristics of being a participant (2017: 1). Through this approach she proposes an aesthetics of participation that centres on the act and experience of taking part to create a system for identifying forms of art (2017: 12). In this way, Breel identifies the difference between the elements which make up participation such as how a participant acts in 'doing' and how that makes a creative contribution. Breel makes the distinction between the participant's act and the participant's experience; that is the difference between what they do and what they sense. This develops a nuanced understanding of the 'idea of meaningful agency as that which is both related to its context and experienced as agency by the participant' (2017: 18). Breel discusses the four elements of the aesthetics of participation; the predetermined context created by an artist, how the context influences the participant's behaviour, their experience of the work and how the demand characteristics impact the role of a participant (2017: 19). Breel concludes that a participatory performance exists in the meeting between participants and a predetermined structure created by the artist. Participants act and are acted upon within participatory performance where participants engage with the work in an embodied way through doing. A consistent thread throughout her argument is that the participant's doing constitutes an act of agency (2017: 220).

Site is an important aspect of performance and the examples examined in Chapter 4 are site-specific. Mike Pearson in *Site-Specific Performance* (2010) discusses the opportunities presented by his experience of a variety of sites he refers to as places (Pearson 2010: 47), and, the context of places he refers to as conditions (2010:92). He describes approaches to developing the scenarios of site-specific works being the affordances of dramaturgy of event, context, concept, space and time (2010: 140). Pearson's work resonates with this thesis for several reasons; he has an open and practical approach describing his work as being about strategy, method and technique and suggests that site-specific works are more than performance in a non-theatre space (2010: 1). He continues by saying that the site itself brings more to the performance because the site is a medium which is indivisible from the work (2010: 12). In this thesis I use examples of performance from both site-specific locations and traditional theatre. Pearson shows the distinction between traditional theatre and site-specific performance in a list form with examples where in an auditorium the scene is singular while in a site-specific context the prospect is complex. In an auditorium the audience is cast as audience

and are purposefully disposed while at site the audience might be incidental (2010: 17). He states that in performance site serves to present recognisable places in unfamiliar ways (2010:41). This is the medium of site and offers an enriched language to performance. Pearson discusses the concept of virtualisation of site using digital technology. He suggests that the effect is to produce novel combinations of presence and absence and that there are enhanced opportunities to record and transmit imagery (2010: 120). These concepts are consistent with the argument regarding the theory of digital culture; site is one aspect of performance that can be analysed using the structures proposed by Fencott et al. Site provides physicality and architecture for perceptual opportunities of sureties, surprises and shocks (described in more detail in section 3.5). Site can provide the physical objects associated with attractors, connectors and rewards and can be part of the intention, perceivable consequence and narrative potential of aesthetic agency. Taking Pearson's example where the site is a barn, then intention can be influenced by the actions available in that sort of location such as stacking hay or turning seed (2010:144). The layering of material such as text, physical action, soundtrack and scenography, referred to as stratigraphy may inform the perceivable consequences of actions (2010: 167). And, space as an organising principle will inform the narrative potential of a production in the same manner as a large industrial unit 'speaks of the creation of Industrial Man' (2010:155).

Ric Knowles in *Reading the Material Theatre* (2004) and *How Theatre Means* (2014) discusses how meaning is made in live theatre. He takes a holistic approach in order to analyse the semiotics and sign systems of performance. He firstly describes the material semiotics of the performance making process. This comprises the negotiation of meaning through the three poles of 'performance, conditions of production and conditions of reception' (2004: 3). He breaks this structure down into its constituent parts of theatrical training, directing, design, acting, funding, space and place and performative genres (2004). He considers that there is a tension between the 'multiply coded systems of production, systems of communication and systems of reception' (2004: 19). Meaning making is greater than the representation made by individual signs or symbols used in a performance. For example, a door might be recognised as an entrance or exit in performance, but it may also represent a way out of a current situation or a way to a new future. In *How Theatre Means* Knowles expands on his original work and explains, that in theatre, it is the complex languages of sound, music, gesture, design and visual communication all working together that is required to produce meaning in the process of

creating, viewing, analysing and recording a piece of theatre (2014: 2 - 3). While signs are about representation, Knowles also points out the power of misrepresentation. He states that all representation in performance substitute for the real thing (2014: 3). In performance they do not need to be the real thing; he continues that signs can be read as signs and nothing else or can exceed their sign value and be read with a semiotic approach (2014: 9). The identification of signs and symbols is analysed using the concept of aesthetic agency described by Fencott et al. (2012: 48) and adds to the meaning making process (see section 3.5 for more detail regarding the structure of aesthetic agency).

Rose Biggin in *Immersive Theatre and Audience Experience: Space, Game and Story in the Work of Punchdrunk* (Biggin, 2017), reinforces the concept of analysing live immersive performance using gaming theory. As the title suggests, it is a full-length study of the immersive theatre work of Punchdrunk. Biggin discusses the qualities of immersion around three themes: interactivity and game; story and narrative and environment and space. In particular, the manner in which Biggin breaks down the elements of immersion in terms of cognitive immersion and gameplay is particularly useful. In the masked works of Punchdrunk, the audience members wear masks that have several functions; they distinguish the audience from the actors, hide their responses and give them anonymity (Biggin 2017: 24). She suggests that the masks give the audience a sculptural presence in the performance and aid disinhibition. While Biggin does not explicitly examine the gaming theory in terms of aesthetic agency by Fencott et al. she does touch on elements previously discussed in this chapter (see section 3.5 for more detail regarding the structure of aesthetic agency). She mentions the metaphor of reward in one-to-ones in *The Drowned Man* (2017: 25), the concept of challenge, skill and flow from Csikszentmihalyi (2017: 29), the idea of learning skills in order to follow rules (2017: 30) and the three levels of immersion of engagement, engrossment and total immersion (2017:39). Biggin continues her analysis using narrative by expressing how participants are able to create their own experience with a strong sense of authorial control in *The Drowned Man*. With modes of freedom, participants are able to express agency however she points out that this is within the framework of a designed set of choices and procedures as is found in gaming (2017: 92). Biggin also highlights, as does Csikszentmihalyi, that participants may experience trouble, discomfort or dissatisfaction when there are barriers to immersion. Merely attending *The Drowned Man* did not guarantee satisfaction. Greater reward occurred by being in the right place at the right time, by being a dedicated enough explorer and by wearing a Premium ticket

holder badge (2017: 93). Biggin analyses game-like practice within Punchdrunk works when she describes how one might ‘play the story’ (2017: 157). Here she focuses on the gameplay of immersive performance and points out that gameplay involves cognitive immersion and being present in the moment of play (2017: 159). Like Blast Theory discussed later in this section, Punchdrunk experimented with combinations of simultaneous live and virtual participants in their productions. In the online version of *Sleep No More* players are provided with ‘signifiers and tropes which explicitly suggest’ the gaming form (2017: 165). The online version provided enjoyable and playful challenges but also allowed for the narrative to be gradually uncovered. Biggin states that achieving a sense of intense engagement in a state of flow, gained in gaming, can be applied to immersive theatre. However, flow is not experienced simply by stepping into the performance space but is more nuanced and requires overcoming barriers to become fully engaged (2017:31).

Adam Alston in *Beyond Immersive Theatre: Aesthetics, Politics and Productive Participation* (2016) examines immersive theatre in terms of the audience experience and meaning making (2016: 2) and the politics of socially engaged art and performance. He suggests that immersive theatre is a loose term but identifies that audiences are invited to engage as productive participants and to be swept up in the experiential qualities of a performance. Alston uses contemporary productions to examine immersive theatre and the politics of participation, particularly in terms of neoliberal values. He states that this is evident in the ways that ‘many immersive theatre performances resource audiences as productive participants, either as immaterially productive subjects, or as physically productive subjects’ (2016: 222). He concludes that the politics of immersive theatre aesthetics ‘relates to notions of empowerment, liberty and equality, but it also relates to how audiences are used in the production of immersive theatre aesthetics’ (2016: 222). Alston evaluates the work of Punchdrunk among others and comments critically upon their approach in light of political initiatives such as the ‘Big Society’ (2016: 119). Alston concludes that while immersive theatre environments surround audiences, a sense of immersion relies on something more than ‘the placing of audiences within a panorama that may or may not captivate attention; it also relies on what an audience brings to the production of an immersive theatre aesthetic and invests in immersion as an engaged audience member’ (2016:226).

In historical practice, immersive theatre does not have a clear lineage but does have a collection of tangible influences⁶. Machon in *Immersive Theatres – Intimacy and Immediacy in Contemporary Performance* draws together the history and theory regarding immersive theatre. Machon identifies the participatory practices in religious festivals and ceremonial pageants over the last 2,500 years (Machon 2013: 28), some of which continue today. Indeed, Mystery Plays are still enacted in the UK which include pageant, participation, promenade and may take up to twenty hours to complete. Machon elaborates on the embodied intoxication of African dance dramas, the shadow puppetry of Indonesia and Commedia dell'Arte (2013: 28). However, it is not until the Modernist period, from around 1900 to 1959, that there is a change in form and Machon identifies the emergence of techniques and sensibilities that we might recognise as more contemporary immersive theatre (2013: 29). This, Machon indicates, was greatly influenced by the incorporation of many forms of art into one production practised by composer Richard Wagner, known as Gesamtkunstwerk, meaning total artwork in 1849. Immersion in the Modernist movement was significantly influenced by Artaud's 'Total Theatre' where one could recapture elements from film, music hall, circus and life (Machon 2013: 30). Artaud was also an early adopter of technology, using sound systems in a theatrical context at an early point in development. It is then into the 1960s and 1970s that experimentation in interactive and immersive theatre occurs. There has always been audience participation in pantomime, music hall and circus, but the inclusion of the audience in performance in the mainstream theatre was new in such productions as *Godspell*, where actors mingled with the audience in the auditorium and the audience were invited to participate on stage, drinking wine.

Machon states that since the year 2000 immersive theatre organisations have been more structured in their approach, with 'companies such as *Punchdrunk*, *dreamthinkspeak*, *WildWorks* and *Blast Theory* leading the way' (Machon 2013: 3-21). *Punchdrunk* is exemplary of immersive work producing both epic and intimate experiences for a roaming audience inside sensory theatrical worlds (Machon 2013: 3). *dreamthinkspeak* create immersive works based on classical texts which are site-responsive and include film, installation and sound (Machon

⁶ Many examples of the liminal or imagined space have been conceived for thousands of years. Bittarello in *The Oxford Handbook of Virtuality* (Bittarello 2014: 86 – 110) explains that man has created many virtual places and for different reasons. Mythical and divine space were conceived by the Greeks where their gods inhabited spaces such as Olympus and Hades, inhospitable places were thought of such as the Siren's Island, and utopian space such as the Scheria where the Phaeacians lived. The Bible refers to virtual spaces such as Heaven, Hell and the Garden of Eden, and Catholics have the ultimate liminal space of Purgatory.

2013: 19). *WildWorks* produce participatory large-scale works sited in found landscapes (Machon 2013: 16). *Blast Theory* is a company that uses transmedia practice in performance, often including technological elements and site-relevant activities (2013: xvi). Warren categorises four types of immersive theatre: exploration theatre, guided experience, interactive worlds and game-theatre (2017: x). He explains that exploration theatre is where the audience is free to explore a set of spaces, a type of promenade. Guided experience is where the audience is led through a narrative but given many opportunities to interact and have a meaningful choice. Interactive worlds are akin to Exploration Theatre, but the choices the audience make can influence the end of the story (2017: xii). Game theatre is one in which the rules and the mechanics of the production are the experience. For example, an escape room might fit into this genre: though not quite theatre it is an immersive experience. In terms of qualities, Warren describes immersive theatre as having elegance, rewards and flavour, where elegance means that the work is mechanically invisible to the audience, such that the planning cannot be seen. Rewards encourage behaviours that help the audience interact with the piece and learn the rules of the environment. Flavour, Warren continues, is an element that has no function within the play but adds richness to the world (2017: 4) such as articles in the set with which a participant may interact like a book, some items on a shelf or pictures on a wall. These have no direct function in the play but add interest to the current context.

Live productions

Alice's Adventures Underground (2017) is such an example of how a live production may make use of design concepts such as those proposed by Warren and theorised by Fencott et al. to demonstrate immersion, interaction, and agency in live theatre. It was performed in The Vaults under Waterloo Station in London and delivered by director, writer and producer Oliver Lansley and an ensemble from Les Enfants Terribles. The production was on a large scale, using 33 separate rooms with 4 different sets of audience of 54 members each, making a total of 216 audience members experiencing the production simultaneously in time slots separated by twenty minutes. Each group was then split into four groups according to the suits of playing cards, and each of these groups had special routes through the 33 rooms, experiencing different performances and having separate special tasks to achieve. The groups took different routes which intersected at specific points in the production, specifically the opening sequences going down the rabbit hole and the final set piece in the Red Queen's courtroom. This was a highly complex, imaginative, sophisticated and complete production which extended the performance

experience before attendance via the website and teasers, to the box office and foyer venue, through the performance to the after-show venue and beyond with interactive feedback. A second version of the show for children was also created, extending the audience from children to senior adults. Modification of the site as described by Alston enhanced the experience of participants and provided opportunity for aesthetic agency and perceivable consequences as described in section 3.5. A sense of being there and part of a special group was reinforced by the first room, which had much to inspect, touch and read. Visual attractors cued the audience to either pay attention or discover detailed design elements in the room. The feeling of independent discovery was an intrinsic reward, while there were surprises in the form of a variety of digitally enhanced mirror-effect projections. Interaction included response to actors, participation included special roles for audience members, rules were described to the audience by actors at the beginning of the production, and roles were given to the audience of special agents. Proximity and engagement with the other audience members in each group was close, and a sense of participation was immediately created by the selected separation and assignation of roles to audience members. The form of the production, taking the audience from the real world of London to a fantasy virtual environment, showed how fluid the identity of individuals might be, with changes as the audience members went from normal people into the roles of secret agents fighting for the underground movement against the Queen of Hearts.

Punchdrunk have created around twenty-three major productions with further adaptations for Punchdrunk International and educational outreach. The work of Punchdrunk is immersive and includes masked audience promenade, promenade and digitally enhanced or augmented productions. It is difficult to define their work in a singular manner; as they say of themselves ‘Punchdrunk experiences defy easy categorisation. Our stage has no edges. You decide what to experience, and what to carry home as an enduring memory’ (Punchdrunk 2021). The majority of their works are site-specific, being held in such locations as empty warehouses. Peter Higgin elaborates on this description by stating that Punchdrunk create works which are ‘site-sympathetic, as works are always created in response to the architecture, layout and atmosphere of the space – whether it’s an empty warehouse, an old hotel or ten acres of ancient woodland’ (Higgin 2017). The audience is at the centre of their work where audience members are encouraged to interact in different ways. In masked productions such as *Sleep No More* (2003), *Faust* (2006) and *The Masque of the Red Death* (2007) the audience wear masks which ‘give anonymity and to discourage them from talking, as well as to encourage a personal

response and an individual approach to exploration’ (Higgin 2017). In active promenade productions such as *Crash of the Elysium* (2011) and *Against Captain’s Orders* (2015) the audience is visible to the performers and is free to interact. Punchdrunk have also produced some digitally interactive works ‘encompassing gaming, new technologies and work that bleeds into everyday reality, using the world as its backdrop’ (Higgin 2017). *Silver Point*, *Believe Your Eyes* and *The Borough* are examples of productions that have used technology and real-world scenarios.

Sleep No More (2003) by Punchdrunk is a retelling of *Macbeth* with a site-specific construction of multiple rooms with choreographed dance and physical theatre and synchronised soundtracks across the many rooms. The production is based in a warehouse configured as the 1930’s McKittrick Hotel. Sara Thiel recognises a similarity to video gaming in the work and suggests that Punchdrunk owes its success to its interactive video game model which appeals to playgoers and game players alike (Thiel 2017: 57). Machon, likewise recognises the game-like approach describing the experience within *Sleep No More* as processual where ‘variations in experience occur due to the audience-participant’s decision making’ (Machon 2013: 116). Audience members are greeted as a guest at the hotel, so they never feel like an audience member. As the guests traverse a long dark tunnel, they are given a playing card, for example, the four of hearts and a mask. The cards are multi-purpose and a similar device as used in *Alice’s Adventures Underground*. As the card designers, Swayspace, comment the cards are used ‘as an introduction to the world of *Sleep No More*, an integral mechanism for managing audience flow—splitting up groups to enhance anonymity and a sense of strangeness—and finally as a memento which fans use to spread word of the production by sharing their playing cards on social media’ (Swayspace 2021). The mask gives the guests a sense of anonymity and aids guest interaction with the performers. The guests are instructed not to speak and to wear the mask. Guests find a hundred rooms and are free to wander where they wish. Each room has its own set and audio against which the performers act out their scenes. Machon continues in her description of the experience of *Sleep No More* that it depends on the ‘active participation which leads to the unique response of each individual audience member in order to complete the experience’ (Machon 2013: 116).

Thiel notes several aspects of *Sleep No More* that are game-like. Firstly, the space is configured as a multi-room hotel, like a video game with multiple levels (2017: 56), the first room being a prohibition bar with a jazz band. This engages the audience in the narrative and sets the era,

mood and pace with jazz music and as Alston comments provides stratigraphy which may inform the perceivable consequences. The next space is used to give instructions, as Thiel states ‘the game/play’s tutorial’ (2017: 57), such as employed by a video game. The instructions are minimal in that the guest must wear their mask and not speak, otherwise they are free to move wherever they wish. However, if they interact with the environment, audience or performers in an inappropriate manner then a ‘black-masked stagehand will appear from the darkness and instruct the player accordingly’ (2017:58). These are the rules of the production that explain both the boundaries of behaviour and the social etiquette. Thiel then points to the fictional space adapting the narrative of *Macbeth* and creating a much richer, textured environment such that many sources reflecting the era ‘becomes a complex intertextual pastiche’ (2017: 61). While most of the characters and storyline of *Macbeth* is incorporated into the narrative of *Sleep No More* there are scenic references to a film noir murder mystery and echoes of *The Great Gatsby* in the ballroom scene. Finally, Thiel describes the social aspect of the production, comparing the audience to types of games players. These are socialisers, achievers, explorers and killers (2017: 62). Socialisers enjoy interacting with others, achievers like to complete defined goals, explorers enjoy the sense of discovery while killers seek to dominate others. Thiel shows how this might be possible within the context of *Sleep No More* with comparable interactions of personal engagement, completion of the narrative objective, exploring the environment and discovering players and by pushing to the front of the crowd or being first to a room (2017: 63).

Against Captain’s Orders (2015) is another promenade format production by Punchdrunk and was created in collaboration with the National Maritime Museum. It was primarily aimed at children aged 6 to 12 years old in school groups but there were also family and adult only sessions available. The National Maritime Museum wished to present their collection in a new and different manner and Punchdrunk created a multi-room guided adventure using sailing artefacts as a stimulus. Like *Sleep No More*, the audience was split into 4 groups, this time using life jackets, and taken around the productions by guides. Emily Short, a reviewer, highlights a difference that the adventure is similar to a live action role-playing game (LARP) as the audience is in character, can speak and is encouraged to engage with the actors (Short 2015). *Against Captain’s Orders* is game-like, the audience members are in character, there are objectives and rules and the audience can interact. There are multiple rooms like game levels and an overall processual narrative. Biggin notes that Punchdrunk often explore the

relationship between gaming mechanics and the immersive experience. Concepts such as levelling up or increasing levels of difficulty potentially facilitate immersion (Biggin 2017: 174). Unlike *Sleep No More*, the audience is guided, sometimes at speed (Short, 2015), through the various rooms and are not allowed to roam freely. In fact, one of the rules is that they must stay together. Each group is introduced to a different object, for example a bottle, which then disappears. The children must then follow clues to find the object and return it to the stores before they are discovered. Short said of the rooms that they were so richly laid out that she had wanted to explore at her own pace but this was not allowed (Short 2015). By the end of the adventure children had further developed skills such as working together, problem solving and reporting. There was opportunity for the player types of socialisers, achievers and killers but less so for explorers due to the speed of progression.

Contemporary performance studies theory and practice demonstrate much interest in immersion and the implication of aesthetic agency. Ficher-Liche and Breel identify the importance of the aesthetic and agency in the meaning-making process, Knowles describes the ‘multiply coded systems of production, communication and reception’ while Biggin, Alston and Machon discuss theory concerning immersion.

2.3 Digital Culture

To help understand digital culture it is useful to refer to gaming theorists as this forms the core theoretical framework for this thesis. In particular, the concepts of aesthetic agency and perceptual opportunities described by Fencott, Clay, Lockyer and Massey and further described in section 3.5 are heavily used in this thesis. Secondly, theory surrounding immersion in digital culture is examined referring to the work of Grimshaw, Charlton and Jagger, Otzen, Stephen Cunningham, and Warren. Thirdly, concepts of virtual spaces described by Machon in which identity may be explored are supported by the structures of ritual and social drama originally posed by Van Gennep and Turner and expanded upon by Schechner. At the end of this section intermedial performances by Blast Theory *Can You See Me Now?* (1991), *Desert Rain* (2009) and *2097: WE MADE OURSELVES OVER* (2017) are analysed to examine how digital culture is integrated into performance.

According to David Weibel and Bartholomäus Wissmath, discourse regarding gaming involves two main attributes: presence and flow. Flow theory was first coined by psychologist Mihaly

Csikszentmihalyi (2000: 36) in *Beyond Boredom and Anxiety: Experiencing Flow in Work and Play* in his original work written in 1975, and republished many years later. Csikszentmihalyi's premise was that there was more to the motivations of behaviours in people than extrinsic reward or punishment (Csikszentmihalyi 2000: 2), and that the nature of immersion is autotelic where the reward is intrinsic. The activity is reward enough and does not require external motivation (Csikszentmihalyi 2000: 20). His original theory of flow as it discusses how flow is achieved through total absorption in an activity. He states that flow is achieved through the balance between challenge and skill; if the skill level of the participant is equal to the challenge, flow is achieved. If the skill of the participant is lower than the challenge requires, then worry will be felt and if the skill level of the participant is higher than the challenge requires, then boredom will be experienced (Csikszentmihalyi 2000: 49).

In *Game Invaders: The Theory and Understanding of Computer Games* (2012) Fencott, Clay, Lockyer and Massey extend their understanding of flow and presence. They describe the traditional background by Csikszentmihalyi of flow, redefining flow as agency and presence (Fencott et al. 2012: 50), which was described as losing track of time, of self and of attaining flow experience when skill and challenge are matched. They go further to describe the aesthetic of a computer game as being the exercise of agency, where agency is characterised by the interplay between intention, consequence, narrative potential, transformation, co-presence and presence (2012: 50 - 51). The structures suggested by Fencott et al. appear to be appropriate concepts by which live theatre might be analysed. Agency is the level of control we might have, while intention is what we would like to happen, and potential consequence is what actually happens. Fencott et al. describe narrative potential as the cumulative effect of dramatic situations within a game, where the exercise of agency is required to realise that potential and transformation as the representation of self in a role or as a character within the game or narrative, an opportunity for self-presence as described by Scarborough and Bailenson (Scarborough and Bailenson 2014: 133). In contrast co-presence within a game is the concept of playing against another human opponent or playing with an artificial computer opponent. From the early games, co-presence has changed radically, with contemporary online multi-user games permitting the co-presence of many individuals from all around the world simultaneously. Finally, presence is the feeling of being totally absorbed or lost within a game (Fencott et al 2012: 52). Fencott et al., while defining agency within games, differ from Otzen regarding presence and immersion. Otzen suggests that flow and immersion are related

constructs but different, where immersion is a precursor to flow and flow is the engagement in the activity (Otzen 2015: 3). Fencott et al. define immersion as the use of technological devices to immerse within an environment such as VR headsets and headphones, and presence is a state of mind (Fencott et al. 2012: 49).

The deep analysis of gaming theory by Fencott et al. defines one more aspect of agency of perceptual opportunities. Perceptual opportunities according to Fencott et al. are structured opportunities to allow participants to explore, strategise, formulate and solve problems, and plan for and attain intentions, not to mention play the game (Fencott et al. 2012: 91). Fencott et al. go on to describe the structure of perceptual opportunities as sureties, surprises and shocks. Sureties are mundane and predictable details that provide a certain safety and security for the participant (Fencott et al. 2012: 92). Surprises are intended to deliver the memorable pleasures of the game by allowing players to accumulate conscious experience and are made up of attractors, connectors and rewards (Fencott et al. 2012: 97). Attractors bring our attention to detail such as lighting an object, while connectors help us realise our intentions to win a reward. In a game an attractor might be an enemy, the connector is information about ammunition, the intention is to beat the enemy and the reward is the increase in score. In live performance an attractor may be a sound or a visual cue, a connector might be verbal or written information suggesting an action to take, while the reward is the outcome of taking an action.

The argument that digital culture informs live theatre appears credible, though it could be that artefacts of digital culture are being appropriated and used in live theatre practice, and little is being learnt by performance makers from digital culture theory. Research rarely crosses the boundary between digital performance theory and live performance, and does not specifically address the question of how the digital informs the live performance artefact. However, Chris Salter in *Entangled – technology and the transformation of performance*, describes and examines the dance and physical theatre works of William Forsythe and Merce Cunningham and shows how digital theory shapes live theatre. Salter describes in great detail the firsts of every type of technological application in live performance. In some cases, it is an examination of the novel and an exploration of the potential, such as man-machine interaction (2010: 306). In other cases, there is a performance method such as telematics (live performance mediated over a communication connection) which is superseded and improved upon through the use of new technology such as the internet and live feed through browsers (2010: 274 – 276). Salter begins with the body as object and then describes the methods of extending the capabilities of

the body in movement. Salter goes to great lengths to understand the theoretical basis for both Cunningham's method and that of Forsythe (2010: 235) and to show how the two choreographers have shaped the way physical performance is delivered in contemporary practice. This analysis shows that digital culture can directly, in a knowing and planned manner, inform live performance. The realisation of the performance with Cunningham and Forsythe is almost totally dependent upon the physical (visceral) body, co-temporal and co-spatial with a passive audience, and not a virtual or telematic experience. Cunningham's and Forsythe's works matter as basic research and as performance makers in the areas of digital culture and live performance. The position taken by Salter is not universally held. In *Performance and Technology, Practices of Virtual Embodiment and Interactivity*, edited by Broadhurst and Machon (2006) Robert Wechsler states in his section on live performance with motion tracking that the special performance qualities which can be achieved through interactive technology are not well explored (Wechsler 2006: 75). He continues that we are beginning to learn what some of these special performance qualities are and how to control them, while others remain in some cases elusive and highly subjective. Wechsler observes that from the perspective of the performance setting there are different kinds of interaction: between artists, between artists and audience, between audience members and between artist or audience member and a computer system (Wechsler 2006: 63). Three out of these four interactions do not require technology but could be informed through digital culture.

Digital Aesthetic

Katja Kwastek in *Aesthetics of Interaction in Digital Art* (2013) takes a structured approach to her analysis of aesthetics in a new medium. Her objective is to create a theory of aesthetics in interactive arts, as she initially points out the source of the aesthetic experience is the recipient's activity associated with the piece of work, which also gives form and presence to the interactive artwork (Kwastek 2013:xvii). Physical interaction, she continues, is indispensable for the materialisation of the artistic concept, and the aesthetic distance is a prerequisite condition of that interaction (Kwastek 2013:xviii). Her book details the historical background to interaction, showing that in the 1950s and 1960s technology had advanced to a point where digital interaction was possible (Kwastek 2013: 5). She highlights that it was Myron Krueger who in the 1970s coined the term 'artificial reality' as a blend of aesthetics and technology which offers a new aesthetic option and an important way to think about art. Her case studies involve interactive media art, narratives in virtual and real space, interactive installations, and

performance. She concludes that it is the receptive act, the interaction of the recipient that is central to the aesthetic of artwork (Kwastek 2013: 48).

Saira Virous, in *Game Choreography in Multiplayer Online Performance Spaces*, links gaming with choreography and dance. Virous states that dance now shares the same digital design technologies that underline the creation of artificial environments. She continues that dance involves proprioceptive, cognitive and physical processing of the temporal and spatial experience which is common to participatory gaming scenarios (Virous 2011: 43 - 44). Virous suggests that the game environment is critical, as it is specific to each individual game. Regarding immersive and participatory environments she states that a game can be described as ‘a rule-based formal system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable’ (Virous 2011: 48). Virous goes further, linking dance choreography to gaming when she argues that in participatory environments it only makes sense to be involved in the game, rather than watching it as a spectacle. She argues that choreography applies to the interaction design and the ideas for the game engine. This in turn allows both trained performers and audiences to engage in the performance. This type of interaction, she continues, cannot be experienced at a console or computer, but needs to be entered literally (Virous 2011: 55).

Sarah Rubidge in *Sensuous Geographies and Other Installations: Interfacing the Body and Technology* suggests that discourse regarding immersive and interactive environments is not easy as they are designed to be inhabited rather than viewed as an artefact or event. She continues that the experience of the digital immersive installation is not simply through that which is observed or heard, but through a more subtle set of senses of the haptic, the kinaesthetic, the visceral and the proprioceptive (Rubidge 2011: 112 -113). That is to say that the aesthetic experience in immersive and participatory environments is found more through touch, movement, bodily sense and perception rather than sight and sound.

Immersion

Weibel and Wissmath in their research article *Immersion in Computer Games: The Role of Spatial Presence and Flow* extended this research with three studies that produced empirical evidence that flow and presence are distinct constructs, where flow refers to the sensation of

being involved in the gaming action and presence is the sensation of being there. They also demonstrated that flow influences enjoyment and performance, where flow mediates the relationship between presence and enjoyment, and flow mediates between presence and performance (Weibel and Wissmath 2011: 16).

In *First-Person Shooters: Immersion and Attention* Mark Grimshaw, John Charlton and Richard Jagger define presence in a virtual environment as a sense of being and acting in a virtual place. The immersive effect is not necessarily a matter of rigorous authenticity but is more an artefact of verisimilitude. Grimshaw, Charlton and Jagger further suggest that gaming depends upon image, sound, controlling attention, learning rules, improving skills, retrieving knowledge from memory (2011: 35). Attention is a crucial cognitive element in controlling and directing appropriate behaviour in response to sensory and internally generated input. According to Grimshaw, Charlton and Jagger, immersion has three levels: engagement, engrossment and total immersion, where engagement is the lowest level where participants are learning the game and controls (2011: 38). Engrossment is the next level, where the player has mastered the mechanics of the environment and can become emotionally involved with the game. Total immersion, Grimshaw, Charlton and Jagger suggest, corresponds to what most writers have in mind when they refer to immersion. The critical feature of total immersion is real-world dissociation, such that there is lower awareness of the real-world physical environment (Grimshaw, Charlton and Jagger 2011:38). The concept of immersion can be broad but requires detail to avoid misunderstanding. This thesis considers multiple dimensions of immersion; as Calleja also explains immersion is an intensification of internalised involvement that blends several dimensions (2011: 38) in addition to the forms of immersion suggested by Fencott et al. Calleja proposed six kinds: kinesthetic, spatial, shared, narrative, affective and ludic (2011: 39). Calleja is supportive of the idea that it is possible to experience presence in both ergodic and non-ergodic media, where ergodic media might be computer gaming, while non-ergodic media is film, literature or a theatrical play (Calleja 2014: 226). Giannachi expands the idea of presence to the hypersurface where the real and the virtual meet each other. She continues that the hypersurface is a liminal space where the viewer can double their presence and be in both real and the virtual environment simultaneously, where the viewer may be part of both the realm of the image and the sphere of the real, and may modify one through the other (2004: 94).

Presence, according to Scarborough and Bailenson in *Avatar Psychology*, is attained by the ability to represent oneself within the environment, to have ease of use, to be able to engage with the narrative and to have frequent real-time feedback (Scarborough and Bailenson 2014: 134). They continue that the immersive effect is increased with self-presence: experiencing the artificial self through the avatar as though it was the real self. This has become known as the Proteus Effect and suggests that an individual's behaviour conforms to his or her digital self-representation (Scarborough and Bailenson 2014: 135). Self-presence can be extended to the awareness of others and is known as social presence (2014: 136). However, Carter and Pollick reported that virtual characters with low anthropomorphism resulted in more social presence relative to no visual feedback or a highly anthropomorphic character, regardless of whether viewers believed the virtual character was controlled by a human or a computer (Carter and Pollick 2014: 149). That is to say, users will 'fill in the blanks' when there is less feedback; greater fidelity results in less social effort from the user. Moreover, Scarborough and Bailenson found there was an expectation that avatars would behave like their characters; that is larger avatars might be more aggressive, and the use of more attractive avatars would be more intimate (Scarborough and Bailenson 2014: 135).

Otzen in *Immersion and Flow: Ingredients for Gameplay* suggests that playing has to do with make-believe and world-building. When someone is playing it is the imagination which is an essential factor, as playing is without boundaries, whereas games are confined. Playing focuses on the present and gaming is about progress, climbing to the next level (Otzen 2015: 2). The use of flow as a term for the immersive experience is essential to separate the significant elements. According to Otzen (2015: 3) immersion means being absorbed into a virtual world; flow requires some skill to progress further in the activity. Immersion, for example, might be the sensory awareness of the virtual environment, but the loss of temporal consciousness in the real world. Flow is related to the activities within the virtual environment and includes attention to the narrative progression, the levels of the task, the goals of the task, and the fact that tasks provide immediate feedback (Otzen 2015: 4). While a role within a virtual environment might increase immersion, it is the rules that define the flow.

The definition of presence and flow can be related, in a digital context, to immersion in live theatre, where presence as 'praesence' is that which is before the senses (Machon 2013: 44) creating a sense of 'being there', and flow is the participation and engagement with tasks. Theorists in the performing arts view immersion more philosophically. Machon describes

immersive practice as an artistic medium of expression. She continues that the paradoxical experience of a lasting ephemerality is that which lasts in the received embodied memory (Machon 2013: 43). Gabriella Giannachi and Nick Kaye discuss presence as both the phenomenon and the medium of the work, which thus becomes the means by which the performance interrogates the action and position of the participants (Giannachi and Kaye 2017: 238).

In discussing interaction and immersion in *Immersion in Virtual Worlds* Calleja (2014) points out that book readers might place themselves within the world described by a literary work by exercising their imagination, but that world does not recognise their existence. Calleja explains that the confusion in this conversation has emerged because representational strategies are conflated with the effect of immersion. As Calleja states ‘all forms of entertainment strive to create a suspension of disbelief, a state in which the player's mind forgets that it is being subjected to entertainment and instead accepts what it perceives as reality’ (Calleja 2014: 226 – 229). Immersion itself is not tied to replication or mimesis of reality. For example, one can get immersed in *Tetris*. Therefore, immersion into gameplay seems at least as important as immersion in a game’s representational space. In this sense, one can be just as immersed in solving a crossword puzzle as in a complex VR game⁷. Calleja summarises his findings by saying that both immersion as absorption and immersion as transportation are made up of several experiential phenomena, rather than being a single experience that can be discovered and measured. The various forms of experience that make up involvement need to be considered on a continuum of attentional intensity rather than as a binary, on/off switch (Calleja 2014: 222).

Immersion is a more complex set of phenomena that vary in intensity. Calleja (2014: 230) has a taxonomy for immersion which is very useful in identifying the complex nature of immersion, which he refers to as the Four Challenges: (1) immersion as absorption versus immersion as

⁷ Espen Aarseth in *Cybertext: Perspectives on Ergodic Literature* coined the phrase ergodic literature, where the effort to traverse the medium is either trivial (non-ergodic) such as reading or watching a film where the eye moves across the page or screen, while an ergodic medium such as VR gaming requires much more effort to experience (Aarseth 1997: 1). Calleja continues to describe the problematic issue surrounding immersion that is too often found both in presence theory and in wider discussions on immersion in related fields, which is the lack of distinction between involvement and presence in ergodic media-like games and non-ergodic media such as film and literature, though he does concede that presence can be experienced in both.

transportation, (2) immersion in non-ergodic media, (3) technological determinism and (4) monolithic perspectives on immersion.

1. Immersion as absorption versus immersion as transportation. The idea that the use of immersion refers to either general involvement in a medium or the sense of being transported to another reality
2. Immersion in non-ergodic media. Where trivial effort is required to be immersed, i.e. passive involvement which Calleja states is that we need to acknowledge the non-ergodic media is simply not the same thing. He advises the use of extended multiple media with varied affordances.
3. Technological determinism. The idea that more technology will make an experience more immersive. Calleja identifies that a bigger screen and a higher fidelity of representation, for example, might make it easier to focus and to retain one's attention on the representation, but this does not necessarily mean that users will feel more present in the environment portrayed.
4. Monolithic perspectives on immersion. A holistic view of immersion where the various forms of experience that make up involvement need to be considered on a continuum of attentional intensity rather than as a binary, on/off switch.

In Calleja's Four Challenges there are three which involve the individual and one which is specifically technological. Challenges 1, 2 and 4 are specific to the behaviours and responses of individuals, while 3 is the implementation of technology, but the technology itself does not determine the individual's reaction. Immersion as absorption versus immersion as transportation represents the spectrum of cognitive involvement, from an interest in something to being so absorbed that you lose track of time and space. An involvement may be in an active process or an inactive process, but the non-ergodic media such as literature or film may be totally absorbing where one loses track of all things outside the current moment. Calleja describes his fourth challenge as monolithic by which he means the combination of all immersive elements, on a continuum, making up an immersive experience for the participant including the actions taken by the participant. The application of technology as described by Calleja in his third challenge does not guarantee the feeling of immersion for the participant. There may be interest, novelty or engagement through the use of unusual devices but any

technology should be integrated into the narrative purpose of the production to make it purposeful and meaningful.

Janet Murray also has a taxonomy which she refers to as the Four Affordances. Here there are three which are technological and one which relates to the experience of the individual. In *Inventing the Medium* (2012) she offers a methodology and describes the principles of design for maximizing the expressive power of the four affordances. These affordances make up the designer's palette for representation in any digital format or genre. She describes her Four Affordances as:

‘Everything made of electronic bits is potentially:

- Procedural: composed of executable rules
- Participatory: inviting human action and manipulation of the represented world
- Encyclopaedic: containing very high capacity of information in multiple media formats
- Spatial: navigable as an information repository and/or a virtual place’

(Murray 2012: 19).

Murray explains the basis for her research: ‘We are born with the ability to make meaningful patterns out of experience and we spend our lives acquiring, refining, elaborating and reinventing these patterns’ (2012: 17). Murray contends that in digital arts the author still exists, but as a choreographer (2012: 153), and while the participant may not be the author they can experience many of the ‘exciting aspects of artistic creation - the thrill of exerting power over enticing and plastic materials’ (1997: 126). Murray delivers an insight regarding the participant; they are not experiencing authorship, the participant is experiencing agency. This is a useful interpretation when applied to virtual reality, indicating simultaneously that the participants may be working in a multidisciplinary environment and that they can exercise control over the deliverable product. Murray defines agency as the ability to take meaningful actions and to see the results of those actions.

Machon, in *Immersive Theatres*, describes the qualities of immersion productions as having specific strands of practice of immediacy, intimacy, sensuality, involvement and communitas (2013: 37). These qualities, when applied by the practitioners, will invoke a scale of immersion (2013: 93) of the production i.e., how to gauge the immersiveness of a production. Machon also

acknowledges how gaming theory is linked to immersive theatre, calling on the work of Calleja (2013: 59 – 63), but goes further to describe that in immersive theatre ‘the audience-participant-performer-player is anchored and involved in the creative world via her or his own imagination, fused with her actual presence, fused with her bodily interaction with the physical and sometimes virtual environments and other human performers’ (2013: 62). The negotiation between immersion, interaction and agency links with the ambiguity of identity discussed by Gary Zabel and points to the connection between immersion and identity examined further in Section 2.3. Zabel in *Through the looking glass: philosophical reflections on the art of virtual worlds* identifies that virtual environments possess six dimensions that collectively distinguish them from other forms of new media. These dimensions are immersion, interaction, the ambiguity of identity, environment fluidity, artificial agency and networked collaboration (Zabel 2014: 416).

Giannachi and Kaye were also heavily involved in the Presence Project, an international project which proposed that the advent of new media and the increasing integration of contemporary performance and media created a new understanding of what presence meant. The project was documented in *Performing presence between the live and the simulated* (2017) the project itself extended from 2005 to 2009. In their introduction, they state that articulation of presence hinged upon notions of immediacy, authenticity, originality and the relationship between performer and witness (Giannachi and Kaye 2017: 1). They conclude that presence is defined in terms of the temporal and spatial shift within an ecology of actions where the experience of presence will be closely tied to liminality (Giannachi and Kaye 2017: 25).

Associated with the feeling of presence and of being there is the concept of proximity. This is similar to the term mentioned previously by Machon of aesthetic distance. I would like to use the term *aesthetic proximity* to link the concepts used in gaming theory to performance theory which will be referred to more closely in section 4.3 regarding immersion through illusion and proximity. Aesthetic distance in art and performance might include the environment in which a site-specific piece of work is situated to create different viewing of a work. Or the audience could be immersed and part of a production in such a way that there is no aesthetic distance. Proximity in game design affects the user experience of a game. Proximity combines aspects of interface design with gaming theory. Stephen Cunningham in *Game Interface Design Theory* describes the Gestalt Laws of Perception as the Law of Proximity, the Law of Similarity and the Law of Continuity (Cunningham 2020). The Law of Proximity states that proximate objects

tend to be grouped together. The Law of Similarity states that elements that are similar to each other tend to be perceived as a unified group. And the Law of Continuity unifies multiple elements on a linear or curving path. Loïc Caroux, Ludovic Le Bigot and Nicolas Vibert in *Maximizing Players' Anticipation by Applying the Proximity-Compatibility Principle to the Design of Video Games* describe spatial proximity in game design. The Proximity-Compatibility Principle or PCP suggests that it is better to group information together like the law of proximity but go further. They argue that when attention is divided into complex tasks, contextual information should be located in the direction of anticipation but not within the anticipation zone (Caroux, Le Bigot and Vibert 2011: 103). This is especially true of gameplay information shown in the form of a heads-up display information bar. The anticipation zone is the area in which gaming action is about to occur and so contextual information would obscure gameplay if overlaid.

Bill Blake in *Theatre and the Digital* (2014) makes many valid counterpoints to the definition of what digital culture might be. He suggests that under the aegis of the digital the terms of discourse concerning the theatre are rapidly changing. But in trying to define what the digital is, he comments that it is a completely unspecific term and questions why the 'digital' should bring about ideas of progress in the theatre arts (2014: 10). He continues with reference to the non-specificity of the term "digital" by citing Martin Harries, a theatre scholar in *Theatre and Media before 'New' Media*, (2012: 8) when he observes that 'there is no relationship between theatre and new media; there are relationships, contingent and shifting and worth attention to their particularity'. Blake here is taking heed of Harries' comment that the term 'New Media', and in Blake's terms 'digital', is too general a reference, too broad to pin down, and that the only way to discuss the digital is by using specific examples within case studies.

In developing video games there are several similarities in the approach that Warren uses but does not himself link to digital culture. In video game design there are levels, with plans and there are routes that can be taken between the levels. Sometimes these routes are linear and in other games, there are several means of entering an alternate level. Within a game level, there will be a design like a floor plan, and this plan will have certain action occurring in specific places, for example, a gun turret may be an obstacle on one route, while a power-up may be placed in another location. These are equivalent to the challenges and rewards within immersive theatre and equate to the elements of flow of attractors, connectors and rewards as

described by Fencott et al. (2012: 97). The following figures show the similarity in approach between planning a video game and planning for immersive theatre.

Figure 1 is a floor plan which helps describe the entire performance space in an immersive theatre event. The rooms relate to the possible episodes in the immersive production and hence dictate the location of required devices and performers. A detailed room plan is then needed to help with audience flow and to plan for areas of gravitation. This forestalls the issue of ‘the void’. Warren suggests that people will gravitate to objects within a space and if no objects exist then people will gravitate to the walls. Where objects are placed within the space is therefore important to prevent the creation of void space (Warren 2017: 24). Objects also provide visual cues for movement within a space and may be opportunities for discovery and intrinsic rewards.

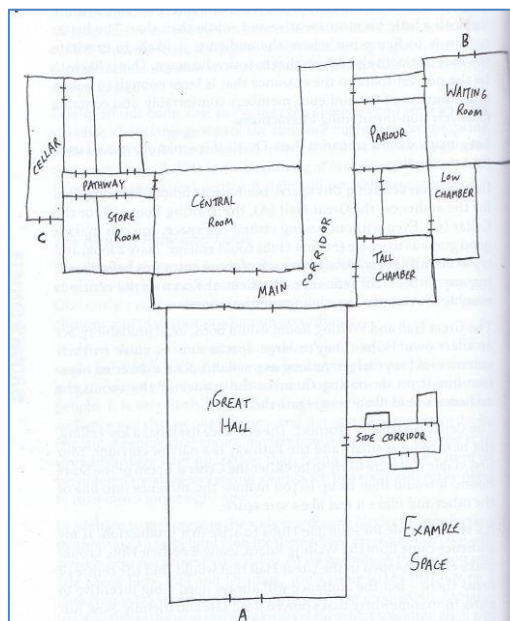


Figure 1: Immersive theatre room plan (Warren 2017: 48). © Jason Warren (Courtesy of the Artist)

Figure 2 is a plan for a level in a video game that resembles the room plan for immersive theatre. The same process of gameplay flow has to be carried out with video games as with immersive theatre.

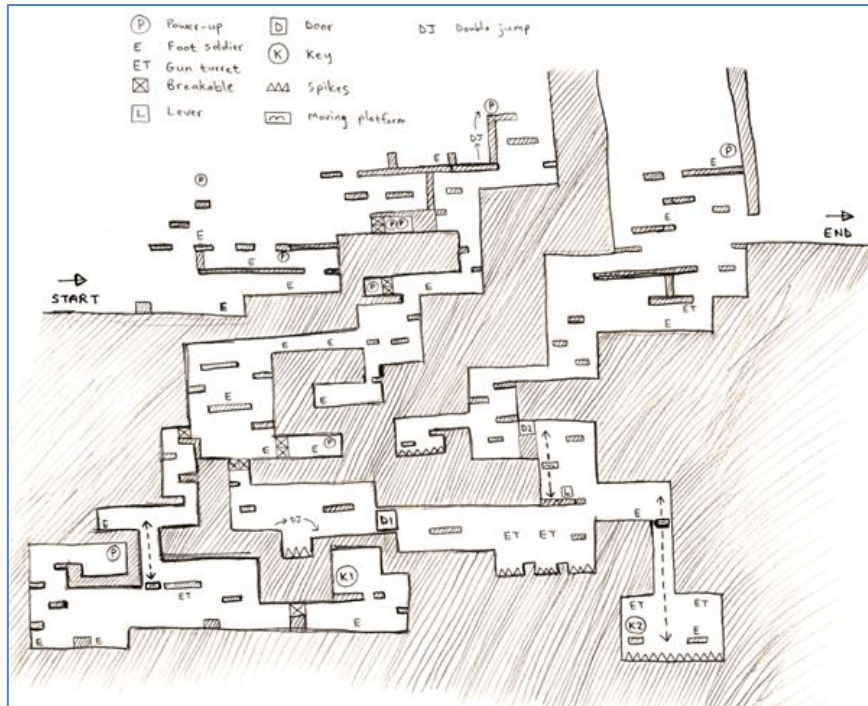


Figure 2: Video Game level plan (Caldwell 2018). © J Caldwell (Courtesy of the Artist)

Jeff Caldwell in his article *How to design levels for a platformer* describes in detail the process for the initial design of a platform video game. A platform game involves a character which jumps from one position to another, such as *Crash Bandicoot* or *Sonic Mania*. Caldwell states that the plan should include the definition of specific and general items and where they appear. A specific item is one which occurs only once, such as a level to move a platform. A general item is one which occurs multiple times, such as gun turret enemies. James Prudhomme goes further in his article for his video game *Missile Command* and describes how an initial design should include a state diagram and process flow (Prudhomme 2004). A flow diagram shows how the player can potentially move around a game play area, while a state diagram shows the condition of items in the game due to the effect of other items in a game. For example, a city may be in a good state or a destroyed state depending upon the number of missile strikes encountered. This game is linear in design, but others may have multiple entry points to certain screens.

Warren also suggests planning an immersive theatre route plan. This is to aid the audience flow in much the same way as a game needs to organise the player flow (Warren 2017: 125). This may be quite a simple schematic if the flow is for one audience group at a time. It may become

much more complex if multiple audience groups are inside the immersive theatre experience at the same time, but taking different and intersecting routes.

Identity in Digital Culture

Identity may be constructed and transformed in a digital context (Causey 2007:16). Turner (2008: 95) stated that this takes place in a liminal space across a threshold where transitional beings change. Szakolczai (2009: 73) suggested that the liminal was temporal, so that liminal and transformational events take place over a period of time, as well as in a place or space, be it virtual or real. It is Zabel (2014: 416) who describes identity as being ambiguous in a virtual environment and states that there is the opportunity for artificial agency. Broadhurst (2006: 141) extends the argument of agency and suggests there is potential for creativity and experimentation, and tensions exist because the liminal sits between the physical and virtual. Erika Fischer-Lichte (2008) takes this argument further and describes how performance should be treated on a par with formal artwork and reveals a new aesthetic through the liminal transformation of the spectator. Broadhurst in *Intelligence, Interaction, Reaction and Performance* comments upon the ritualistic nature of technological spaces. When discussing digitally enhanced theatre she suggests that as a result of these technological advancements, she comments that new liminal spaces exist where there is potential for diverse creativity and experimentation. She continues that these spaces are located on the threshold of the physical and virtual, and as a result tension exists (Broadhurst 2006: 141). She builds on her argument that the individual has fluidity by stating that the experience of the corporeal schema is not fixed or delimited, but extendable to the various tools and technologies that may be embodied (2006: 148). A combination of the physical and the virtual provides for a greater scope of performance, as she concludes with the enhancement and reconfiguration of an aesthetic creative potential which consists of interacting with and reacting to a physical body, not an abandonment of that body. Broadhurst advocates for tension-filled liminal spaces of a physical and virtual interface so that opportunities arise for new experimental forms and practices (2006: 149).

Turkle explores the concept of identity and intimacy in a technological age, where technology proposes itself the architect of our intimacies, and where digital connections and the sociable robot may offer the illusion of companionship without the demands of friendship in *Alone Together* (2011: 1). She argues that in our culture of simulation, the notion of authenticity is

for us both threat and obsession, taboo and fascination at the same time (2011: 4). Turkle highlights that the sense of self and being together with others is disrupted, as she suggests that being alone can start to seem like a precondition for being together, because it is easier to communicate if you can focus, without interruption, on your screen. She continues that when people have phone conversations in public spaces, their sense of privacy is sustained by the presumption that those around them will treat them not only as anonymous but as if absent (2011: 155). Turkle identifies several areas of social intimacy where individuals are more comfortable using proxies for connection rather than actual face to face interactions. Examples of these are sociable robots for comfort (2013: 39), texting rather than talking (2013: 15), robotic health care (2013: 24) and artificial decision making with AI (2013: 63). She sees the possibilities but also the dangers and the consequences of such dependencies⁸.

Turkle concludes that in the course of a life, we never graduate from working on identity; we simply rework it with the materials at hand. Social media allows people to rework themselves, perhaps 'the plain represented themselves as glamorous, the old as young, and the young as older. Those of modest means wore elaborate virtual jewellery. In virtual space, the crippled walked without crutches, and the shy improved their chances as seducers' (2013: 158). Turkle points out the dangers of living our lives through simulation and hoping for validation in this way. She states that sometimes people try to make life with others resemble the simulation, and concludes that if there is an addiction here, it is not to technology, it is to the habits of mind that technology allows us to practise (2011: 287). It is a practice that enables a change in identity and what we are able to do when inhabiting that identity. Zabel (2014: 416) states that ambiguity of identity and artificial agency are two of the six dimensions that distinguish virtual worlds from other media. He defines ambiguity of identity as our bodily presence in the virtual world, mediated by a variable digital representation; and artificial agency as the facility with which software agents can be embedded in virtual worlds. He further observes that in a virtual environment bodily presence is open to radical discontinuity, where the identity of the virtual

⁸ Turkle observes many powerful features of this new world for individuals; she commences a detailed argument about the self in a virtual space by commenting that when part of your life is lived in virtual places...a vexed relationship develops between what is true and what is "true here," true in simulation...we think we will be presenting ourselves, but our profile ends up as somebody else, often the fantasy of who we want to be (2013: 153). Though she believes people talk about digital life as "the place for hope," there are unsettling isolations with the tethered self (2013: 154). These isolations can be the illusion of entitlement, being connected while being absent, the experience of the physical and virtual in near simultaneity and it can be the illusion of making more time by multitasking (2013: 155).

person is able to change easily (protean) and is ambiguous, including indicators of age, gender, race and biological species (2014: 416).

Causey compiles his research over ten years to build a dialectical argument between the history of theatre in virtual spaces versus the embeddedness and bio-politics of digital culture in *Theatre and performance in digital culture from simulation to embeddedness* (Causey 2006: 3). Causey's use of posthumanism is well established in the field of virtual environment research, where posthumanism is defined by digital culture theorist Katherine Hayles. In *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* Hayles sees no essential differences between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals (2010: 3). Causey takes existing theory and new theory regarding virtual reality and searches for the application of theory to new theatre paradigms. It is in his discussion of metempsychosis that the birth of theatre in virtual reality is the death of theatre in virtual reality and should inform the rebirth of theatre in a live environment. His call is for an integrated use of new knowledge from virtual reality to inform and support new performance in a live context, and he questions if current performance theory fails posthuman performance (Causey 2006: 51).

In *Performance: A Critical Introduction* (2018) Marvin Carlson writes a guide to understanding performance as a theatrical activity; he covers many disciplines and shows how these relate to theatrical concepts. In particular, he discusses the liminoid nature of theatre, turner's social drama, the role of the audience and immersive theatre. Of the liminoid, Carlson states that 'liminoid, like liminal activities mark sites where conventional structure is no longer honoured, but being more playful, more open to chance, they are also much more likely to be subversive, consciously or by accident introducing or exploring different structures' (2018: 18). This he suggests becomes a natural site for performance making where alternative possibilities of performance making are not restrained by the more 'cultural-bound structures of conventional theatre' (2018:18). He continues that performance is a specific event with its 'liminoid nature foregrounded' where the audience and performer are separated from the rest of life, where the experience is made up of 'material to be interpreted, to be reflected upon, to be engaged in emotionally, mentally, and perhaps even physically' (2018: 253). The four phases of social drama, as defined by Turner and developed by Schechner could be represented in a 'form discoverable in all theatre' (2018: 16). Carlson summarises the structure of a theatrical performance in terms of breach, crisis, redressive action and reintegration through

Schechner's model of social drama and aesthetic drama where he states that the theatre person uses the 'actions of social life as raw material for the production of aesthetic drama, while the social activist uses techniques derived from the theatre to support the activities of social drama, which in turn refuel the theatre' (2018: 16). With regard to audience, Carlson suggests that the act of theatre is a tripartite one, involving yourself, the performer, and the rest of the audience. That is to say, the performance is experienced by an individual who is also part of a group (2018: 252 – 253). The audience will attempt to make meaning out of performance, one way being through a double consciousness; one a remembered original of an action and the other the actual execution of an action (2018: 10). The audience may also be on a spectrum from performance to participation dependent upon the degree of involvement of the audience (2018:11). In participative performance such as immersive theatre, the audience is encouraged to enter the stage world such as Punchdrunk 'in which audience members share the spacial world of the actors' (2018:203). Carlson refers to this participation as the performing audience and notes that the first study of immersive theatre was labelled 'simming', a reference to the video game like nature of immersive theatre (2018:203). Concepts of the liminoid and social drama will be used as structural devices around which the concepts of immersion and identity will be discussed in Chapter 4 and Chapter 5.

The Rites of Passage (van Gennep 2019), originally published in 1909, built upon prior investigations into the rituals and "exotic" rites of the colonised territories (2019: xvi) more closely categorised ritual behaviours, breaking them into stages of what van Gennep referred to as liminality. This three-fold structure regarding the transformation of people is made up of the following components: preliminal rites (or rites of separation), liminal rites (or transition rites), post liminal rites (or rites of incorporation) (van Gennep 2019: 11). Van Gennep viewed the rites of passage observed in "less advanced" societies as the precursor of society through which all western European societies must have progressed (van Gennep 2019: xiv). He may have viewed our newer, more technologically advanced society through the same progressive lens, but described his work as a rough sketch of an immense picture through which an individual would pass throughout their lifetime (van Gennep 2019: 189). He identified these key points in an individual's lifetime as pregnancy, birth, childhood, betrothal, marriage and funeral rites, but he also identified territorial rites and initiation rites among others. These can generally be categorised as four types of social rites: initiation where an outsider is brought into the group, passage from one place to another, the passage from one situation to another

and passage of time. Turner wrote about the rituals of the Ndembu people of Zambia where he describes many of their ritual processes in *The Ritual Process: The Structure and Anti-Structure*, originally published in 1969 and subsequently reprinted many times. Turner based much of his work on van Gennep, making reference to him in his work especially when it comes to liminality and communitas (Turner 2008: 94). Turner does not refer to those in rites of passage, the liminal personae, as having fluidity of identity but as being ambiguous, slipping between the network of classification that normally locates states and positions in cultural space (Turner 2008: 95). Simultaneously, Turner describes liminality as a place, a time and of people. The place is the limen, the threshold (2008: 95). Rites of passage take place over a period of time or may have periods of isolation such as initiation rites (2008: 4). While liminal personae are threshold people (2008: 95), Turner wished to show the importance of the in-between periods and the human reactions to liminal experiences, the way liminality shaped personality. He suggested liminality implied that the experience of the high could not exist without the experience of the low (2008: 97). Katy Freidman Miller in her article *How to Surrender to the In-Between* describes a liminal space as a time between what was and the next, an intermediate state, phase or condition (Friedman Miller, 2019) and continues that liminality is the quality of ambiguity or disorientation when participants are between their previous way of structuring their identity, time or community and a new way.

Holman Jones, Adams and Ellis in the *Handbook of Autoethnography* cite Turner, who developed his theory of liminality into that of social drama, the four-phase sequence of breach, crisis, redress, and reintegration (Holman Jones, Adams and Ellis 2013: 133). A breach is an underlying fault in society challenging the status quo. A crisis is a triggering event that must be managed, it marks the crossroads where society must address the implications of the breach. The redress is the action taken to resolve the crisis. And the reintegration or schism is the outcome of a social drama, either a reintegration into society or a split from society (Morris 2005: 8). The concepts of transformation are useful to this thesis in understanding how identity might be fluid and is changeable, and the use of the four-phase sequence of social drama is relevant to theatrical drama having a similar structure in narratives. Szokolczai in *Reflexive Historical Sociology* elaborates upon van Gennep's three-phase structure and states that in the liminal stage rites of passage must follow a strictly prescribed sequence, where everybody knows what to do and how it is performed under the authority of a master of ceremonies (Szokolczai 2009: 148). As discussed previously, van Gennep describes liminality in three

stages: pre-liminal, liminal and post-liminal, and ascribes these states to ritual practice. Szakolczai further refines the liminal to be temporal as well as spatial, as in the 'twilight in spring' (Szakolczai 2009: 73)

Loneragan develops the argument regarding identity in digital culture by suggesting that social media is a performance space that can alter our understanding of all performance spaces: it forces new ways of thinking about authenticity, creative proprietorship, authorial intention, and the relationship between artist and audience, among many other urgent issues (Loneragan 2015: 5). Drawing on multiple sources Lonergan traces how identity on social media may be managed. He cites Jamie Bartlett in *The Dark Net* (2014) who writes that social media platforms facilitate the creation of fake identities that are used for illicit or anti-social activities, such as the purchase of illegal drugs, the circulation of extremist material or the grooming of children and teenagers (Loneragan 2015: 30). This he suggests places strain on our understanding of the authentic self. Citing Sherry Turkle in *Alone Together* (2013) he refers to her comment that in social media 'performances of identity may feel like identity itself' (Turkle 2013: 468). Lonergan comments that social media 'blurs distinctions between solitude and intimacy, between the real and the virtual, between the valuable and the worthless' (Loneragan 2015: 4). Lonergan rationalises this blurred distinction by exploring many of the categories that have become confused in social media. He suggests that 'theatre too is a space in which we can be alone together, a space in which fictions can reveal truths, a space in which individuals can find their real self by pretending to be someone they're not' (Loneragan 2015: 4). Drawing on Brenda Laurel's argument Lonergan argues 'whereas computers users had been like audience-members at a theatre, Web 2.0 and social media now allow them to be like actors, playwrights and directors too. Social media is not just a performance space; it is also a theatrical space' (Loneragan 2015:16). Lonergan describes social media spaces as ones in which people perform identities (2015: 2). Social media platforms, he concludes, can thus provide a space in which individuals and institutions offer performances of themselves for public consumption which may be authentic, or may be fake, and all such performances are capable of being commoditised (2015: 31). He continues to say that the inter-relationships between theatre and social media comprise viewing social media as a performance space, exploring the presence of social media in theatre, analysing the use of social media to restage theatrical performances and exploring the potential of social media to act as a space for analysis of theatre (2015: 34). He notes that 'every posting to a social media platform is inherently

unfinished, in the sense that it is always open to being altered, either directly or through the resources that frame it. Even on a site that is no longer being maintained, a post can still be copied, edited, re-circulated, and perhaps transformed' (2015: 33). Social media appears to be a space of representation and simulation. Jean Baudrillard (1981) in *Simulacra and Simulation* discusses simulation in the real world concerning reality, symbols and society. The extreme nature of simulation and simulacrum Baudrillard refers to as the desert of the real (Baudrillard and Glaser 2018: 1). His argument considers what he refers to as the hyperreal, where something that simulates the real eventually becomes more important than the object it is simulating (Baudrillard and Glaser 2018: 12). By this, he refers to things that have no intrinsic value, but to which society ascribes a real value. Baudrillard cites the examples of money, to which value is ascribed although it has no value in and of itself, but the symbol of money is given real meaning (Baudrillard and Glaser 2018: 14). Another example is religion, where the images of divinity are more real than the reality ascribed to divinity, and the simulation of divinity is more important than divinity (Baudrillard and Glaser 2018: 5). It is in this manner that we might ascribe more value to the virtual environment of social media than to the real world.

The COVID-19 lockdown has reinforced the ideas of virtual and real identity described further in this section. People are trying new ways to present themselves in social and professional circumstances. Some also struggle because the normal ways of connecting to others are not available to them. The following two examples emphasise the concept of identity presented through virtual devices during lockdown where the hiding and presenting of self are different from a real-life connection. Aleks Krotoski in her podcast *The Digital Human* comments that during the lockdown people are having to come to terms with a 'new normal'. She states that we are finding out what digital technology is good for and what is most important to us. She continues that meeting socially or professionally, on Zoom for example, is different, it feels like a performance (Krotoski 2020). Conversely, the BBC reported the unhiding of identities. Danny Shaw reports that an estimated 60,000 people, among them up to 10,000 in Britain, subscribed to France-based EncroChat, a form of encrypted WhatsApp on adapted mobile phones (Shaw 2020). This provided criminal communications without consequence, effectively invisible to the authorities. Arrests are being made and will have repercussions for several months if not years. The notion of a hidden identity is not new and goes as far back as

the Greek legend of the *Ring of Gyges* which grants the wearer of the ring invisibility without fear of detection (Laird, 2001).

Intermedial productions

Blast Theory founded in 1991 is a performance group who employ interactive media ‘creating groundbreaking new forms of performance and interactive art that mixes audiences across the internet, live performance and digital broadcasting. The group’s work explores interactivity and the social and political aspects of technology’ (Blast Theory 2021). They have created eighty-one major productions since 1991 and categorise their work by types of audio, gallery-museum, games, live, mobile and online video. Their work often pushes the boundaries of technology and since 1997 have collaborated with the Mixed Reality Lab of the University of Nottingham. In the category of games Blast Theory created *Can You See Me Now?* (1991) and *Desert Rain* (1999). *Can You See Me Now?* is a game that happens simultaneously online and on the streets. Players from anywhere in the world can play online in a virtual city against members of Blast Theory. Tracked by satellites, Blast Theory's runners appear online next to your player on a map of the city (*Can You See Me Now?* (Tokyo) 2010). Using GPS, a real city and a virtual city, players and runners try to catch each other, talking via the internet and taking pictures which are stored in the game’s online storage. *Desert Rain* is a war game. Six players at a time suit up and go into the virtual desert which is video projected onto water spray. ‘*Desert Rain* uses a combination of virtual reality, installation and performance to problematise the boundary between the real and the virtual’ (Blast Theory 2021). *Desert Rain* is based on the Gulf War and uses a combination of interactive audience role play for 6 players who have a mission. (*Desert Rain*, 2009). Categorised as live, mobile, online and video *2097: WE MADE OURSELVES OVER* (2017) is a ‘science fiction project that took audiences on a journey into an imagined future. Blast Theory worked in partnership with diverse communities from Hull in the UK and Aarhus in Denmark to develop a speculative vision of the world in 2097’ (Blast Theory 2021). Made in response to Hull being the City of Culture, a combination of the city’s public phone boxes, interactive mobile phone apps, participant recordings and public video displays invited the audience to reflect on the changes they might wish to see in the future.

Both *Desert Rain* (1999) and *Can You See Me Now?* (2001) were collaborations with the Mixed Reality Lab in the University of Nottingham. The Mixed Reality Lab creates interactive technologies to enhance everyday life. Their research is grounded in the field of Human-

Computer Interaction (Mixed Reality Laboratory - The University of Nottingham 2021). Both productions employ a gaming approach to the delivery but use different styles. *Desert Rain* places 6 players in booths with a foot paddle controller to operate movement. Players have people as targets to find in the desert based on the 1991 Gulf War. Steve Benson and Gabriella Giannachi explain that the 'rain' aspect creates a physical and audible effect of water spray against which the projection of the game play is displayed. This provides a multisensory immersive effect of sound, vision, touch and temperature to engage the players physically. Operators assist players from a control room to both aid players if they get stuck or to control the pace of the game to increase the sense of tension (Benford and Giannachi 2011:127). *Desert Rain* was based on the concept that the Gulf War was the first made-for-TV war and that the cameras mounted on the front of computer guided smart bombs conjured an unreal sanitised battle of computer games (Smith and Dixon 2007: 617). *Can You See Me Now?* is a location-based game with both online players and live performers/runners. The fifteen online players navigated the game using a digital map of a city and tried to avoid being caught by the four runners. While the online players could only move at a fixed speed the runners had to negotiate the real city and avoid real obstacles. However, the runners, who were Blast Theory members, could see the text messages of the players and could communicate with one another via walkie talkies. They also had a handheld device that showed the position of all players and runners (Benford and Giannachi 2011:28). *Can You See Me Now?* operated with an extended reality using 'presence at a distance' where players and runners inhabited separate environments that were 'connected together virtually to create an adjacent reality' (Benford and Giannachi 2011:32). The map and position of runners provided the stimulus for players actions, and players saw the result of their choices in real time, either avoiding capture or by being caught. Both games used reality as a key component of the digital gaming event. In *Desert Rain* as a surprise to the players, while an image of a soldier played on the rain surface, a real soldier passed through the rain in front of the player. Also, players could pass through the rain as a form of transition or cleansing. After the twenty-minute game was completed, the players were taken to a real set of a hotel room where the identities of their targets were revealed. In *Can You See Me Now?* runners negotiated a real world city and the players interacted with the runners in real time.

2097: WE MADE OURSELVES OVER (2017) is quite a different collaboration with the citizens of Hull. The people of Hull and Aarhus are asked to imagine what it will be like in their city

in 2097. Blast Theory state that this is their most ambitious project to date and asked questions such as ‘What is it that makes a community? And what are the things that sustain us in the face of change?’ (2097: We Made Ourselves Over 2017). The production ran over the whole month of October 2017 and included interactive telephone calls from phone boxes, rides in electric cars to visit locations or to meet performers, interviews, five films presented one each weekend and an interactive application on mobile phones. The interactive application includes the five films plus five interactive episodes that let you speak to characters from the films directly. The entire project considers the themes and questions raised by the people of Hull and Aarhus; from death and the idea of transferring knowledge to the young when we die to machines and how cities grow for the good of the community (2097: We Made Ourselves Over 2017). Rather than taking the form of a gaming challenge, this project used a mixture of media and real locations to involve the people of the two cities.

2.4 Chapter summary

In this chapter, I investigated the work of other theorists and practitioners on the subject of how digital culture informs live theatre through the lens of gaming theory. The literature review was presented in two sections: Performance studies and digital culture, the second comprising subsections on digital aesthetic, immersion and identity. This structure was used to highlight the theoretical work of others in the areas of interest of this thesis against which I could evaluate my arguments that aesthetic agency in live theatre is informed by digital culture through the behaviour and agency of the participants, be they audience or performers.

Agency as an aesthetic may be drawn from gaming theory and links to the themes of immersion and identity in performance. Fencott et al. (2012: 50 - 51) describe the aesthetic of gaming in two main ways. The first is the aesthetic of pleasure, which they describe as the pleasure of taking part, of being told a story and of losing oneself (2012: 45). Secondly, they describe the aesthetic of agency as the interplay between intention, perceivable consequence, narrative potential, transformation, co-presence and presence (2012:50 -51). Kwastek (2013:xviii) suggests that physical interaction is indispensable for the materialisation of the artistic concept, and the aesthetic distance is a prerequisite condition of that interaction. Fischer-Lichte (2008: 181) draws together threads relating to remediatisation, presence, liminality and transformation, and argues that her approach should not replace, but add to established theories of aesthetics.

Immersion as a quality, in both digital culture and in live theatre includes the sense of ‘being there’ and is important, whether it is described as co-presence, co-spatiality, co-temporality (Fisher-Lichte 2008: 181), or engagement (Grimshaw, Charlton and Jagger 2011: 38), in a virtual or real environment. Even if the environment is artificial the feelings of engagement and enjoyment are real (Grimshaw, Charlton and Jagger 2011: 51). Presence and flow are two parts of immersion used in gaming theory and performance theory. Presence is described by Machon (2013: 62) as the audience-participant-performer-player fusing their imagination with their bodily interaction and other human performers, while Weibel and Wissmath suggest it is the sensation of being there (2011: 16). Flow is the engagement and interaction in gaming. According to Csikszentmihalyi (2000: 49) flow is achieved through the balance between challenge and skill, while Weibel and Wissmath (2011: 16) suggest that flow mediates the relationship between presence and enjoyment, as well as the relationship between presence and performance. It is Fencott et al. (2012: 50) who redefine flow as agency and presence. Fencott et al. (2012) suggest that the methods by which immersed participants navigate the mechanics of interaction is through perceptual opportunities. See section 3.5 for more detail on perceptual opportunities. Perceptual opportunities are made up of sureties, surprises and shocks, and surprises are further composed of attractors, connectors and rewards.

Turner (2008) examines identity through liminal spaces and ritual, and van Gennep (2019: 11) provides a structure of pre-liminal, liminal and post-liminal and the use of rites of passage where individuals have a transformation of identity. Turner (2008: 95) further describes liminality as being of place, time and of people through which the performance of identity may be analysed. Broadhurst (2006: 148) described individuals in virtual performance as having fluidity by stating that the experience of the corporeal schema is not fixed or delimited, but extendable to the various tools and technologies that may be embodied. Zabel (2014: 416) suggested identity as being ambiguous in a virtual environment and states that there is the opportunity for artificial agency. Both Broadhurst and Fischer-Lichte argue that identity, agency and the aesthetic can be altered through interaction with the liminal; that there is potential for creativity and experimentation as the liminal sits between the physical and virtual (Broadhurst 2006: 141) and that performance provides opportunity for the liminal transformation of the spectator (Fischer-Lichte 2008). Breel focuses on exploring the processes through which individual responses become aesthetically part of the performance. The participant’s experience arises out of taking part while the aesthetic and personal elements of

the participant's experience are linked in the experiential aspect of participation. (Breel 2017: 205 - 207).

The next chapter concerns the approach and methodology used in this thesis. The progress through the process of Grounded Theory is discussed and shows how this aided the analysis of aesthetics, immersion and identity.

3. Approach and Methodologies

3.1 Introduction

This thesis uses a modified grounded theory approach and a methodology that analyses research using gaming theory, liminality and ritual to investigate aesthetic agency, immersion and identity. A grounded theory approach provides a way to manage longitudinal research. For this thesis, the research began with basic data collection comprising digital culture and live theatre and performance and comprised the building of a database of terminology. The categorisation of the data revealed which elements of the terminology was more strongly represented. For instance, terminology regarding interaction and identity were both strong elements. Field research of current digital and live performance allowed for continuous comparison and, combined with the data categorisation allowed for the emergence of theory.

This chapter describes the methodological approach of grounded theory in Section 3.2, the use of interview in Section 3.3, the use of a long term web search in Section 3.4, the aesthetic agency schematic and a full description is found in section 3.5 and the model of identity in Section 3.6. Aesthetic agency is a key theoretical component of this thesis and includes a description of perceptual opportunities. A model of identity is used to help clarify the location of relationships and interactions within the research. Section 3.7 provides a summary of this chapter. The introduction provides a reflection regarding bias and ethics and a perspective on what has changed over the last decade regarding digital culture and live performance.

This thesis is qualitative and is therefore exposed to the critical argument of reliability and validity. The qualitative methods comprised personal experience, observation, prior surveys, interviews and online research. Each of these methods may be subject to bias for which I account during analysis. Full verbatim transcripts of participants' responses in interviews are in Appendix 8.1. Michael Quinn Patton in *Qualitative research and evaluation methods* states that qualitative research is the enquiry into, the documenting and the interpretation for the meaning-making process (Patton 2002: 4). Qualitative research encompasses many research methods and generally examines the why and how of the subject matter, the meaning-making process, and not the empirical measurement of quantity, volume, duration or intensity. It is therefore unsurprising that the aesthetics of performing arts and the associated theory are resistant to both quantitative methods and a reductive approach. Some supporting quantitative

analysis has been obtained for this research from survey results and cumulative values for graphs below.

The ethical principles adhered to in this research are the attainment of excellence, honesty, integrity, cooperation, accountability, training and skills, care, safety and respect as outlined in the *University of Wolverhampton Handbook* for ethical approval and practice procedures (wlv.ac.uk 2017). In this research, human subject involvement comprises personal subjective commentary, observation, use of prior survey data of anonymous subjects and one to one interviews. Further information on the ethical approval process and the ethical approval application can be found in Appendix 8.8.

Digital culture has transformed in the last decade and the comparative change in technology, access, usage and number of users affects how digital culture informs aspects of performance making. There has been a 2 billion user increase in global access to the internet (Internetlivestats.com 2020), a 2.5 billion user increase in social media usage (Smart Insights 2020) and an increase of 60% in the use of smart devices to access the internet (OFCOM 2020). Change to virtual theatre, performance and administration is reflected in the adaptation of technology to the use of best application for purpose. Molly Eichel notes that auditions are now predominantly taken virtually as an e-audition rather than face to face (Eichel 2020). The use of video or Skype has become the norm as a first audition. This saves time and money for the actor and also increases reach for the casting director. Poppy Burton-Morgan, a freelance theatre and opera director, and artistic director of Metta Theatre, confirms that the use of social media assists with auditions. She elaborates that social media helps with ‘casting, producing advice, tour booking and even as a writer crowdsourcing ideas for lyrics’ (Burton-Morgan 2018). Burton-Morgan continues that social media is not so much a marketing tool to sell tickets, as is often the case for venues, but an effective way for audiences to engage instantly and directly. Social media provides potential global reach for even the smallest company and venue while some companies are using event cinema to extend reach and increase revenue (National Theatre Live, 2020). Musicians have also encountered change due to digital culture in the last decade. The rise of music festivals in the social event calendar is in part due to music via streaming becoming practically free. According to Mahita Gajanan, artists find it easier to make money at festivals than depending on long tours or record sales (Gajanan 2019). More live music performance is, therefore, in part, a consequence of digital streaming music access and the increased engagement with digital culture.

The writing of this thesis ran from 2012 to 2020, a period of eight years over which time much has changed in relation to the selection of large scale outdoor events for investigation. In the real world of theatre and performance, large-scale open-air public performances were easier to organise up to 2016. These became smaller, closed events after the terrorist events such as the Nice Bastille Day attack in 2016 (Attack in Nice 2016). The risk associated with terrorist attacks was highlighted by a terrorism risk report by Marsh & McLennan, a security and risk specialist organisation, that the number of terrorist attacks peaked in 2016 with 25,785 incidents globally (2019 Terrorism Risk Insurance Report 2019: 3). Not only was this due to the security risks posed by terrorists but also the increased administrative and financial burden on event organisers. The UK National Counter Terrorism Security Office brought out a report in 2016 highlighting the issues of terrorism, risk assessment and insurance for large scale events (Counter Terrorism Protective Security Advice for Major Events, 2016). After this time any public event required traffic barriers and security staff, making events smaller and more expensive to run. It was consequently more difficult to find suitable large scale outdoor events from which to choose as comparative case studies post 2016.

3.2 Grounded Theory as an Approach

The purpose of this thesis is to investigate if digital culture informs live theatre. Grounded theory as described by Barney Glaser and Anselm Strauss (2017) in *The discovery of grounded theory* is viable as a potential approach within the field of performing arts, particularly as this thesis aims to gain insights into audience behaviours and experiences over an extended period. Grounded theory is a general method of comparative analysis that is concerned with social processes and interactions (Glaser and Strauss 2017: 1). Grounded theory makes the distinction between qualitative and quantitative data and proposes that qualitative research may assist with the generation of new theory when there is a systematic approach to its collection and analysis (Glaser and Strauss 2017: 15). Glaser and Strauss suggest the power of grounded theory lies in the generation of new theory rather than the verification of old theory (Glaser and Strauss 2017: 18).

Grounded theory is a methodology that is mainly concerned with behaviour and interactions and as such, has potential for further application in the field of performing arts if the objective is to develop insights into experiences. Grounded theory proposes the collection of data through various qualitative methods. This data is codified to identify pertinent aspects of the data. This

codification greatly reduces the amount of information to be analysed (Glaser and Strauss 2017: 101). The codes are then grouped into concepts, and then these concepts into related categories; it is essential to try to create new categories to aid the development of the new theory (Glaser and Strauss 2017: 37). It is these categories that are used to help detail the subject of the research and develop the new theory (Glaser and Strauss 2017: 15). Memos, which are written commentaries, created as required, are recommended for the discussion of content behind the categories or the capture of ideas or regarding field notes (Glaser and Strauss 2017: 113 - 118).

Charmaz states that grounded theory provides a systematic yet flexible set of guidelines for collecting and analysing qualitative data in order to construct theories from the data themselves (Charmaz 2014: 1). Data can be collected in the general subject area of the research, and continuous analysis and comparison would help to refine the proposals. The approach calls for data to be collected and then coded, where sections of text are described in terms of concepts, then the concepts are grouped into categories. This process indicates the main themes that will emerge from the research. The main themes were combined with findings from relevant theorists in the areas of live and virtual performance, interviews, field research, the taking of field notes, and web search. It was through a combination of coding and theoretical research that the main attributes of digital culture, those of aesthetic agency, immersion and identity, were revealed. The analysis of the productions for immersion and identity under the umbrella of aesthetic agency was conducted comparatively to highlight the strengths and weaknesses of various approaches to the delivery of live theatre. As Charmez suggests, the constant comparative method in grounded theory is a process that does not end with the completion of data analysis, it can continue through the literature review and theoretical framework (Charmez 2014: 305), and one should remain engaged in comparative strategies throughout the research (Charmez 2014: 132)

Research process

The process by its nature was recursive, reflexive and extended over several years and allowed for themes and theory to emerge over time. The original question of this thesis has always concerned how digital culture might inform live theatre. This question was stimulated from research for my master's degree, where my dissertation investigated the effect upon identity when interacting with Facebook. This thesis was inspired by Causey's call (2006) for a better way that digital culture might inform live performance. This led to the investigation of the

uniquely performative qualities of the digital arts that can inform the creation of live performance. Causey further stated that the challenge was to appropriate or to develop analytic structures that will allow an understanding and discussion of these [virtual] experiences and, at the same time, stimulate the development of expanded applications (Causey, 2006:59).

The following process of data collection, literature research, performance field research, the creation and refinement of concepts and categories and the emergence of theory identified that the gaming theory of aesthetic agency was a strong candidate which provided a lens through which to discuss two qualities of digital culture; those of immersion and identity. The process was supported by the methods of interview, field notes and web search. Discussion regarding interview can be seen in section 3.3, web search can be found in section 3.4, while detailed descriptions of aesthetic agency and the model of identity can be found in sections 3.5 and 3.6 respectively.

Data collection

Data collection started by gathering descriptions of human and technical behaviours from online applications and websites and was carried out between 2012 and 2018. This firstly concerned social media such as Facebook, YouTube, Twitter, Pinterest, Whatsapp, and Facebook Messenger which yielded personal online interaction. Next, entertainment on demand was found to have its own terminology which was often commercially oriented. On-demand streaming services have become an increasingly popular service from Netflix, Amazon, Spotify, BBC iPlayer and SoundCloud. Major advertising and online sales platforms which have their own jargon include Amazon, eBay, Gumtree and Google, where consumer behaviour is driven by personalised prompts from the organisations. Likewise, social media will monetise social interaction with paid-for post boosting and managed advertising campaigns. Data collection was primarily concerned with the theatrical or performance-based online behaviours, and therefore searching continued through online sites delivering a range of online performance opportunities such as Second Life and those organisations involved in virtual reality, augmented reality, telematics and intermediality. Finally, live theatre and literature were investigated to collect terminology regarding the techniques used in performance, the technology of theatre and literary devices.

Literature research

Many pieces of work by relevant theorists and practitioners were considered to develop the literature review and to gain insight into live theatre, digital culture and the background of digital culture and live theatre. Research into both performance studies and digital culture was undertaken to understand the relevant theory underpinning this thesis. In addition, some statistical background information was gathered to support the position of this thesis as being a pertinent topic. For example, over 2 billion of those users connected to the internet are registered with Facebook (Smart Insights 2017). The revenue generated by digital gaming (video games) globally (Brown 2018) is almost three times that of the global film industry, and more than the film, music and television industry put together at \$135 billion (Facts 2018). With regard to live theatre in the UK, statistics show that there are more seats in the West End available, more seats being purchased, more young people between sixteen and twenty-five years old going to the theatre, and more jobs available in the theatre than ten years ago (SOLT 2018). A secondary long-term search was set up in Google to examine the currency of the term 'digital culture' and to potentially surface opportunities for research. The results of this search can be found in Section 3.4 and showed that the term 'digital culture' is used more in business, media and technology than in performing arts. When the term was seen in the fine arts it was mostly to do with digital curation of museums or sites of interest.

Performance

I attended live theatre performances over a period of six years. The aim was to visit as many theatre venues as possible and watch as many theatrical performances of multiple genres. The objective was to locate performances relevant to this thesis. I attended one hundred and sixty-seven separate performances between May 2012 and June 2018. Twenty-five venue types were visited which ranged from the oldest opera house in the world to caravans used in an intimate performance, from open-air performance to West End theatre. A full list of venue types can be found in Appendix 8.3. Thirty-one performance genres were investigated. These included traditional forms of theatre from opera, dance and drama, but also many other forms such as immersive and site-specific performance, large scale outdoor performance, comedy, circus, podcast and puppetry. A full list of performance genres investigated can be found in Appendix 8.4, while a full listing of performances investigated can be found in Appendix 8.5. Field notes were taken contemporaneously to the productions and memos were created for any ideas or concepts which emerged as a consequence of attending the production. The field notes were structured and allowed for input of categories and theoretical models to aid analysis of the

productions. A ranking was given to each performance as to how immersive and how interactive each was. Performances were ranked from 1 to 5, where 1 was low and 5 was high. Results indicated that of 156 productions, 16 showed an immersive effect of 4 or above, and 16 showed an interactive effect of 4 or above. 11 performances appeared in both the highest-ranking immersive effect and interactive categories.

The grounded theory process of categorisation was used at this point applying the theoretical taxonomies of Auslander and Dixon and the logging of performance information during field research. Auslander's structure comprised passive, interactive, participatory, trans-locational and transmedial categories while Dixon's structure comprised traditional theatre, digitally aided theatre, multimedia theatre, interactive holographic theatre, digitally enhanced theatre, cyber adapted theatre, computer-mediated performance and digitally assisted theatre. Each performance was assessed in the terms of the categories of Auslander and Dixon, where Auslander's terminology concerns activities and location of a performance while Dixon's terminology concerns the structure of the performance.

Results are displayed in the table below:

Dixon by Auslander Theory	Count of Event
Interactive	19
Computer Mediated Performance	1
Digitally Assisted Theatre	1
Multimedia Theatre	7
Traditional	10
Participatory	21
Computer Mediated Performance	1
Digitally Assisted Theatre	3
Digitally enhanced	2
Multimedia Theatre	3
Traditional	12
Passive	111
Digitally Assisted Theatre	5
Digitally enhanced	4
Multimedia Theatre	5
Traditional	96
Cyber Adapted Theatre	1
Trans-locational	1
Traditional	1
Transmedial	4
Digitally Assisted Theatre	1
Digitally enhanced	2
Multimedia Theatre	1
Grand Total	156

Figure 3: Tally of theoretical categories G Marshall 2020

Figure 3 shows some significant findings. Firstly, the majority of performances were categorised as passive and traditional. Forty performances were either interactive or participatory, while twenty of those performances were also traditional. In assessing findings against the theoretical models of Auslander and Dixon it was found that the models demonstrated some confusion in their categories. Auslanders' model has three categories that relate to the audience response and two which relate to the type of production. This is confusing: if a production has no interaction or participation then it is identified as passive, but passive covers many types of performance from the highly technological which may not be trans-medial or trans-locational, to immersive theatre which may be relatively passive. The fourth and fifth categories of Auslander refer to how the production is transmitted and not to audience response. Dixon's model appears to have gaps as well, where seven categories relate to some element of technology, and only one to a traditional form, which is assumed to mean that it lacks technology. A traditional form of theatre covers many genres, some of which may also have some element of technology applied. Dixon also uses the term 'cyber adapted theatre', where the content of the performance relates to technology but could also be traditional. This is the case with *The Nether* and *Ugly Lies the Bone*, where the content referenced the use of virtual environments, was in a traditional theatre setting and used advanced video design, and as such might be categorised as cyber adapted theatre, digitally enhanced theatre and multimedia theatre. The reductive nature of categories limits their qualification, and herein lies the problem with the two taxonomies; that they were created to support certain types of arguments at specific points in time. It appears that there is an opportunity to examine the human condition with respect to digital culture in live theatre and performance. The categorisation likewise appears to require updating to consider more subtle forms of immersive, participatory cyber-related performance.

Creation of concepts and categories

The refinement of the collected data into concepts and then into categories allowed for the removal of a significant proportion of the data into a subset of useful terminology. For example, while literary devices were interesting in themselves, apart from some crossover with narrative and techniques used in live theatre and gaming, the majority could be immediately removed from a research focus. The original question of how digital culture informs live theatre was qualified over time with input from the constant comparison of categories and existing theory. Causey had already suggested the strengths of virtual reality lie in the immersive nature

of VR in the aural, scopic, and tactile senses (Causey 2006:62). Causey makes arguments regarding the identity of the individual involved in performance both within digital culture and outside in the visceral world. He identifies the posthuman in both live terms and digital terms, describing how the body can be territorialised through genome mapping and genetic engineering, gender reassignment surgery and mechanical, electronic and biological prosthetics (2006, p.53) and also how the individual can inhabit virtual spaces where identity ambiguity can be achieved through transgender shifts, ethnic morphing, temporal and spatial reconfiguration which signals a wholesale subversion of boundaries between man and machine, natural and artificial (Causey 2006: 53).

Concepts found for gaming and virtuality from theorists varied upon the focus of their research. Grimshaw, Charlton and Jagger suggest that gaming depends upon image, sound, controlling attention, learning rules, improving skills, retrieving knowledge from memory (2011: 35) and that immersion comprised engagement, engrossment and total emersion (2011: 38). Otzen states that gaming comprises immersion, flow, playing, make-believe, world-building, imagination, boundaries, rules, playing is without boundaries, games are confined, progress, climbing to the next level (2015: 2). Otzen continues that those dispositions associated with gaming as absorption, skill, activity, sensory awareness, being in a virtual environment, temporal consciousness, attention, narrative progression, attaining levels, completing tasks and goals and to receive feedback (2015: 4). Fencott et al. define gaming in terms of flow, presence and agency (2012: 50) and continue that losing track of time, learning skills, challenge, intention, consequence, narrative potential, transformation, co-presence and presence make up what they term aesthetic agency (2012: 50 - 51). To experience aesthetic agency according to Fencott et al. one must explore, strategise, formulate and solve problems and plan for and attain intentions (2012: 91). To aid the experience of the participant designers will incorporate sureties, surprises and shocks (Fencott et al. 2012: 92). Fencott et al. state that the aim is to create memorable pleasures and conscious experiences through the use of attractors, connectors and rewards (Fencott et al. 2012: 97). Murray defines gaming as being participatory, encyclopaedic, spatial and having virtual place (2012: 19) while Giannachi and Kaye suggest presence should be a combination of immediacy, authenticity and originality (2017: 1). Longavesne describes virtual space as comprising place, time, action, space and interactivity (2001). Machon describes immersion in terms of immediacy, intimacy, sensuality, involvement and communitas (2013: 37). Wechsler discusses the importance of interaction between artists,

interaction between artists and audience, interaction between audience members and interaction between artist or audience member and a computer system (2006: 63). Virtual space may be described as virtual reality or VR, virtual world, telepresence, cyberspace, Utopia, simulacrum, artificial space, illusory space, MUDs (Multi-user dungeons), Second Life, imitation of reality, artificial reality, (Heim 2014: 112 - 118). Lichty describes virtual worlds as being Transmediated, cybrid, client/browser and evergent (2014: 445) while Zabel describes virtual environments as having environmental fluidity and networked collaboration (2014: 416). The limen, liminoid and the threshold (Turner 2008: 95). Virtual theatre, cyborg theatre, hyperspace and having hypersurface (Giannachi 2004: 6 – 95). Social media, social networking, computer game, Facebook, the place of hope, intermediate space, a place to hide, MySpace, and online (Turkle 2013: 26 – 172).

Concepts identified for immersion as a category include immersion as absorption, immersion as transportation, immersion in non-ergodic media, technological determinism and monolithic perspectives on immersion (Calleja 2014: 230). Interactive theatre, immersive theatre, audience participation (Machon 2013: 30). Epic and intimate experiences (Machon 2013: 3). Participation, remediation, bricolage (Deuze 2006). Boredom, anxiety, experiencing flow (Csikszentmihalyi 2000: 36). Extrinsic reward or punishment (Csikszentmihalyi 2000: 2). Autotelic, intrinsic reward, activity as reward, motivation, absorption, challenge and skill (Csikszentmihalyi 2000: 20). Gaming action, presence, sensation, being there, enjoyment and performance (Weibel and Wissmath 2011: 16). Artefact of verisimilitude (Grimshaw, Charlton and Jagger 2011: 31).

Scarborough and Bailenson identified concepts for identity which include transformation, representation of self, role, character and self-presence (2014: 134), the real self (2014: 135) and social presence (2014: 136). It was through Fencott et al. that co-presence and artificial computer opponents were found (2012: 51) while Giannachi and Kaye identified the relationship between performer and witness (2017: 1) and presence closely tied to liminality (2017: 25). Zabel characterised an ambiguity of identity and artificial agency as qualities of an individual experiencing virtuality (2014: 416) while van Gennep defined the liminality in terms of preliminal rites (or rites of separation), liminal rites (or transition rites) and post liminal rites (or rites of incorporation) (2019: 11). Turner discussed liminality and communitas (2008: 94), liminal personae, fluidity of identity and the state of an individual experiencing liminality as being ambiguous (2008: 95) while Cauley discussed the Posthuman condition (2009: 47).

Virtual bodies, cybernetics and robot teleology were identified by Hayles (2010: 3) with the concept of the uncanny valley described by Grimshaw (2014: 6) while deviance, identity on the internet, ambiguity of identity, identities that are fantastic, identities that are fraudulent and identities that are exploitative or identities that are criminal was discussed by Jewkes (2003: 3). Finally, Lonergan described how people perform identities (2015: 2), had characteristics of authenticity, creative proprietorship and authorial intention, and what was the relationship between artist and audience (Lonergan 2015: 5).

Reflection and refinement of concepts, categories and themes

The analysis of immersion and identity is linked through the concept of aesthetic agency despite their difference, as immersion is about ‘doing’ while identity is about ‘being’. Further reflection upon aesthetic agency theory from digital culture appeared to provide a strong structure and might be an alternative lens through which to analyse live theatre. Identity is not discussed in the same way as immersion in gaming theory, though aesthetic agency theory connects the two notions. Virtual environments are discussed in gaming theory and virtual identities have their basis in liminal space, liminal personae and the pertinent theory. Themes of illusion, proximity, discovery, experience, agency, memory, liminality and ritual emerged over time through the performance fieldwork. It was found that even if a performance lacked relevance to the research, the venue was of interest in its own right. Site has an important impact on performance as Pearson suggests site is a medium that is indivisible from the work (2010: 12). Places such as the Teatro di San Carlo in Naples, the oldest opera house in the world, The Vaults under Waterloo Station in London, Wilton’s Music Hall, a resurrected theatre, the Wanamaker Theatre at the Globe, an Elizabethan indoor venue lit by candles, and open-air venues were all notable. Being there does have an impact: even without analysing theatrical performance, the proximity to the event, being able to discover and experience for oneself, to have a choice and create some lasting memories, felt important and are also relevant in the context of digital culture. Digital culture curates the ultimate function of discovery which it terms as search engines, and each application has its search capability to enable discovery. While the virtual environment of digital culture is ultimately illusional, content needs to provide the feeling of closeness in relationships and good quality of audio and video.

Emergence of theory

Over time and through constant comparison, one of the main features of grounded theory (Glaser and Strauss 2017: 109), the mechanism to analyse immersion and identity in live theatre became clearer. Viewing immersion and identity through the lens of aesthetic agency from gaming theory provides a new perspective through which it can be seen that it is agency that empowers the audience and participants, and informs the modes of immersion, identity and aesthetics within new theatrical experience in the context of digital culture. The analysis will demonstrate how the audience can experience alternative modes of production through the interplay between intention, perceivable consequence, narrative potential, transformation, co-presence and presence (Fencott et al. 2012: 50 -51). This is achieved through a sense of discovery, personal achievement, greater aural and visual stimulus, implicit role-play and multiple modes of interaction and participation. Themes of illusion, proximity, discovery, and experience build an immersive locus for the observer. This relates to live performance as agency in interaction and participation, the acquisition of learning skills and the understanding of social rules, proximity to points of engagement within the performance, the use of narrative or gameplay, liminality and the suspension of disbelief and the use of physical or imaginary boundaries. Identities created in a technologically liminal space, through analysis, can offer new paradigms for performance in the live space. It is an agency that facilitates the fluidity of the identity of an individual and helps present a new analysis of real and virtual identity in the context of live theatre. It is, therefore, agency that creates the new aesthetic with respect to immersion and identity in live theatre in the context of digital culture.

3.3 Interview

This research uses semi-structured interviews which are an amalgam of both structured interviews and unstructured interviews, and are of a generalised nature according to Patton (2002: 342). In a semi-structured interview, a set of questions may be prepared and used as the basis of the interview and answered by all the interviewees, but supplemental questions may be asked and a level of digression or expansion on certain issues may be allowed. Interview transcripts may be found in Appendix 8.1. In-depth interviews with individuals who have a very specific interest within a research case can be defined as a qualitative research method and will typically involve a small number of interviewees to explore their views on a particular subject. Two specific interviews were completed, one with Luke Halls the video designer for

The Nether and *Ugly Lies the Bone*, and Samuel Bishop the director of *The Electric Cinema*, a venue that conducts interactive cinema experiences.

Interviews may either confirm or negate views previously held by the interviewer, and may also reveal new information previously hidden from the interviewer through other methods such as observation. However, Irving Seidman in *Interviewing as qualitative research* contests that an interview is not to answer questions, test hypotheses or to evaluate, but is to better understand the experience of others and the meaning they make of the experience (1998: 3). Statistical analysis of structured interviews may therefore be more straightforward than other types of interviews as the researcher can compare the results from different interviewees. However, structured interviews may have simpler questions and may also tend towards survey, with shorter answers or graded responses. The opportunity within a structured interview is to reduce the level of bias and increase the level of objectivity, which are always issues within an interview process.

Unstructured interviews, or the informal conversational interview as Patton (2002: 342) suggests, present an opportunity for revealing knowledge or information about which the researcher was unaware previously. This is valuable in gaining new insights into the research which were previously unknown, and may provide the basis for new ideas within the research. A level of digression would be allowed within an unstructured interview; however, analysis of one or more interviews will be more difficult than with structured interviews, and responses may be nonlinear and fragmented. Unstructured interviews may allow a higher level of bias to affect the responses within the interview, and the formulation of resultant data may be much more difficult.

Luke Halls provided specific detail regarding *The Nether* and *Ugly Lies the Bone*, and also gave some insights into the industry of moving image design. I was able to see how his work had developed from prototyping to the final product. Samuel Bishop was able to provide specific information regarding event cinema, audience reception to event cinema and commercial and technical aspects of the digital cinema industry.

3.4 Web Search – Google Alerts

Use of the internet as a resource, and internet searches as a method of information gathering, is viable for both qualitative and quantitative information. Qualitative information may consist of finding the opinions of others on a web resource, while quantitative information may be gathered through online surveys and counting the results. Denise Rall in *What Would Kant think? Testing Truth Claims in Research Traditions and Proposing Deeper Meanings for the Concept of Search* suggests that web-based search engines have come to dominate the academic research landscape, but challenge academics in the building of a truth claim (Rall 2012: 283-284). It is argued that the results of simple searches on the internet should not be used to form research claims, however, the technological nature of this research method makes it appropriate as an indication of the use of the term ‘Digital Culture’⁹.

Web search has provided much useful information for this thesis, and the approach is two-fold. Firstly, in the design of this research, a Google alert was set up specifically for the search term ‘digital culture’. A regular set of results were returned each day, and these results contained feeds that refer to digital culture in a political context, a business context, education, finance, culture, generic events and finally performing arts, non-performance arts and curation in museums. The tally of search results indicated the relevance of the search criteria in the context of the global community, and at the initiation of the research project, it was suspected that digital culture with reference to performing arts and the arts might have fewer news items. Secondly, insights into the online prevalence of digital culture may be determined, for example, it may be useful to understand the actual volumes of internet users around the world, the languages used on the internet, the number of live performance venues and the number of live performance seats available (in the UK) and the official research figures from Ofcom regarding online viewing of performance.

The results of both the online research and the Google alerts gave a starting point for the volume of users who have access to and use services provided on the internet. Information provided on the internet also highlighted the growth or decline of theatre attendance, where that information is gathered. Understanding the metrics associated with live theatre and with digital

⁹ An efficient method of gathering data is to set up automatic alerts which are provided through Google. Google provides a guide as to how to set up automatic alerts, and can deliver a list of new web results for news, websites, blogs and other internet resources which become available, for the certain set of key words that are put into a search query. These results can be delivered daily or more frequently and may be ‘best match’ or ‘all results’.

usage may reveal an understanding of the dynamics associated with the consumption of cultural artefacts, both in the digital realm and the live realm.

Digital Culture as a term in online news stories

Over a period of eight years, internet news stories were tracked using Google alerts. The term ‘Digital Culture’ was used as a search phrase. A total of 4,555 stories were captured and their categories tallied. The Google News alert method showed the broad range of digital culture news items globally. High-value entertainment categories were present in the news alerts, such as streaming media, e-sports, gaming and pornography. High value gains the attention of consumers, investors and politicians: consumers to purchase products, investors to exploit products and politicians to control products. Behaviour-shaping news items featured social influencers, political influencers and online gambling addiction. Social influencers, just like media stars, have great reach and they must curate their profile very carefully, since should problems occur their means of income generation might be reduced rapidly. Many political and social media news items were related to the Russian hacking and influence over the US elections and the emergence of the term ‘fake news’. At the same time, there was great concern over the increasing influence of online gambling and the lack of regulatory control as many gambling sites are located offshore away from scrutiny and not answerable to normal EU, UK or US law. Therefore, high value and risk was associated with the term ‘digital culture’ in the news alerts and was also germane in other news topics.

‘Digital culture’ as a term has some currency and is in widespread use in business, politics, media, technology and social media. It is certainly used in academic literature with eight titles in the bibliography of this thesis including the term. A simple search for the term ‘Digital Culture’ returns more than thirty pages of books where the term ‘Digital Culture’ is included in the title covering topics as diverse as gaming to religion. Using a Google news alert enables a global reach to recent activity which is not associated with static websites or videos and covers all news items which contain ‘digital’ and/or ‘culture’ and word stems from any sector. The Google alerts are configurable and create content that can be analysed at a later point in time. It was disconcerting that there were relatively few references to ‘performing arts’ specifically until 2020. Of 4,555 news items tracked, only 115 referred to performing arts directly. While this appears a troubling indicator that performing arts, in general, are not engaged with any form of digital culture the reality is revealed through extended analysis.

There are eight categories related to performing arts that do not refer to themselves as performing arts but more specifically as, for example, musicians, fine arts film or media. A combination of news articles from these wider categories demonstrates a wider acknowledgement of digital culture with 1,694 news articles over the period of collation. Extending the analysis to social media it was found that performing arts such as live theatre preferences social media and static websites to the creation of news stories that might appear in news alerts. Later in this section, it can be seen that the majority of live performance productions use a combination of multiple social media platforms and static websites and tabulation and charting of the web search results can be found in section 8.2.

The category of ‘culture’ generally refers to national culture around the world, where digitisation of national cultural artefacts is made available online as a resource, often containing photographic, video and audio collateral. Media showed a significant increase over 2018 to 2020 due to many news items relating to the BBC licence change, the Jeremy Kyle controversy and the media storm regarding Caroline Flack. Technology figures were influenced significantly by the initial funding of the 5G rollout and then the controversy regarding security, Huawei and conspiracy theories around the effect of 5G masts affecting COVID-19. Social media had many news items regarding the use of social feeds which caused controversy. These include Tweets on antisemitism and hate crimes. Social media latterly was asked to do more to suppress COVID-19 misinformation. Security concerns regarding Chinese social media apps also generated many news items. Social media also took on a wider meaning. Religions, pornography and politics appeared to lean on social media or represent themselves as forms of social media. For example, online church services and digital rosaries were available. Pornography and associated dating apps were being used in a more targeted way as social media causing concern for the well-being of young people. The Russian influence on political elections appeared many times, where social media was used to influence the behaviours of the electorate.

The first news items relating to COVID-19 and the lockdown appeared on 23 February 2020 and related to performing arts in China going digital in the wake of the coronavirus epidemic. Preparations were acknowledged up to a month later, when on 23 March the UK was officially put into lockdown and having to socially distance. Performing Arts received more news items in 2020 than in the previous eight years (90 versus 25). Of the 90 Performing Arts news items, 72 related directly to the impact of the COVID-19 pandemic, the lockdown, the support funding

and the return to performance of various forms. Performing Arts allowed to reopen first were outdoor events such as outdoor theatre and street theatre. Some theatres tried socially distanced seating, with entry testing and personal protective equipment, though many venues found this to be financially unworkable. Some theatres have decided to cancel their Christmas pantomime season and reopen in the new year in 2021.

Field research into theatrical productions (detailed in Appendices 8.3, 8.4 and 8.5) regarding web presence for live performance was undertaken prior to the lockdown. The purpose of this element of research was to understand to what degree live performance was making use of digital capability and to ascertain if this was shaping the productions themselves in any manner. Online research indicated that most live performance productions had some form of internet page available to allow online booking, with some information about the production. Of the near 160 performances investigated, social media engagement was erratic and inconsistent. Further searches were conducted in social media sites of Facebook, YouTube, Twitter, Instagram, SoundCloud and Pinterest to evaluate each production's social media engagement; 63 had a Facebook page, 71 had a Twitter account, 105 had videos on YouTube, 60 had Instagram accounts, 10 had SoundCloud presence and 48 had posts on Pinterest.

The relevance of an online presence is that it prolongs the perceived extent of the performance from before, potentially during and stretching beyond the performance. The online services are free of charge and enable an extended appreciation of the performances. *The Voyage* exemplified this process, with an exhibition during and after the production and interaction with the community groups involved in the performance. The figures demonstrate that there is no consistent exploitation of online services for live performance events, with the exception of online booking which is provided by the venue rather than the production.

3.5 Aesthetic Agency Schematic

This section summarises aesthetic agency as defined by Fencott et al. in *Game Invaders - The Theory and Understanding of Computer Games* in schematic and summary descriptive form. Fencott et al. build their theoretical structure based on the previous theoretical works of Murray (1997), Laurel (2014), Csikszentmihalyi (2000) and Turkle (2013). I propose this structure as one through which digital culture theory might inform the theory of live performance. Below I describe in schematics and text aesthetic agency and perceptual opportunities and define in more detail aspects of this model that are employed in this thesis. Theorists such as Patrick Lonergan (2015), Susan Broadhurst (2006) and Gary Zabel (2014) describe virtual performance and the ambiguity of identity in a digital context, which ties into the concepts of presence, co-presence and transformation in aesthetic agency.



Figure 4: Digital theory Overview (Marshall 2017). © Greg Marshall

In Figure 4 I show the direction of learning from digital culture theory to live performance theory. Specifically, I propose that the theoretical model described below may be repurposed to show how aesthetic agency, aspects of digital immersion and qualities of virtual identity may be passed through and used to create richer live productions. Grounded theory has enabled a theoretical position to emerge from study when viewing live theatre and performance through the lens of digital culture. Aesthetic agency links both immersion and identity derived from digital culture and may be used to help analyse existing productions and to produce new performance. Outside the scope of this thesis is the suggestion that it is the ‘gamification’ of live performance or the application of technology that is being proposed.

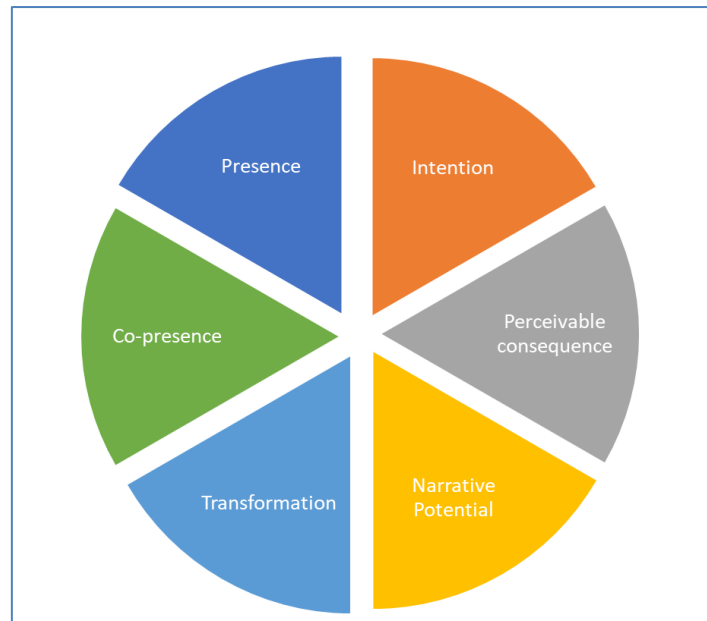


Figure 5: Aesthetic Agency Schematic (Marshall 2017). © Greg Marshall

Figure 5 shows the schematic of aesthetic agency as described by Fencott et al. as the interplay between intention, perceivable consequence, narrative potential, transformation, co-presence and presence (2012:50 -51). Fencott et al. describe the pleasure of agency as the ‘interplay between our intentions, what we would like to happen, and the perceivable consequences of our actions, what actually happens’ (Fencott et al. 2012: 48).

Fencott et al. define the elements of aesthetic agency as follows:

- **Intention** - the pleasure of setting goals, short and long term, when playing a computer game and being able to decide what action would be best to take next in order to make progress.
- **Perceivable consequence** - the pleasure we gain from seeing the results of our actions in the way the game world changes, maybe to our benefit, maybe not.
- **Narrative Potential** - the pleasure of the coherent build-up of agency into meaningful patterns or even stories, through the process of exercising agency. The narrative which builds up will not be one predetermined by the author but one based on the possibilities on offer as choices and progress is made.
- **Transformation** - the pleasure of becoming someone or something else in gameplay
- **Co-presence** - the aesthetic pleasure of being present with other sentient characters in a game.

- **Presence** – the sense of being part of, of being in, the game world to the exclusion of the real world.

(Fencott et al. 2012)

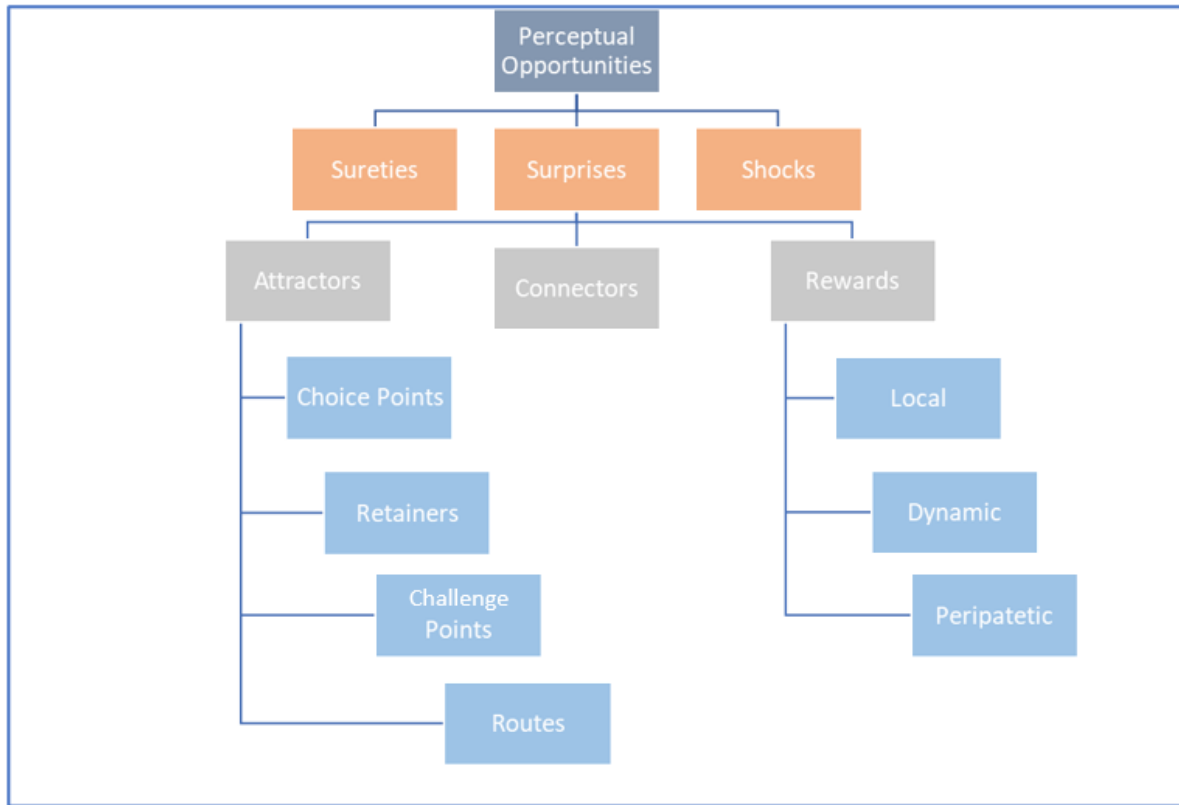


Figure 6: Perceptual Opportunities Schematic (Marshall 2017). © Greg Marshall

Perceptual opportunities, shown in Figure 6 concern the theory which deals with the game content and suggests possibilities for interaction. Perceptual opportunities are the methods by which participants navigate the mechanics of interaction and link back to aesthetic agency.

Perceptual opportunities are made up of sureties, surprises and shocks as described previously in section 2.2 and section 2.3:

- **Sureties** - content that helps to create believability, goes largely consciously unnoticed by participants.
- **Surprises** - content the participant pays conscious attention to during interaction.
- **Shocks** - unwanted content that reminds us we are playing a game.

(Fencott et al. 2012)

Surprises are the most important feature in this model used to drive gameplay forward. It is not just the implicit meaning of an attractor, connector or rewards that is important but the connotation of such objects. Perceptual opportunities deal specifically with connotations relating to gameplay and agency (Fencott et al. 2012: 109) and how we may make meaning in general (Fencott et al. 2012: 122). With perceptual opportunities surprises are connotations while sureties are denotations (Fencott et al. 2012: 147). That is to say, a surety is exactly what it is, for example, a chair is just a chair, while surprises might mean something else, for example, a chair might be used to climb to a higher location.

Surprises are composed of attractors, connectors and rewards:

- **Attractors** - content that stimulates intentions.
- **Connectors** - content that helps the player to retain focus on a current goal.
- **Rewards** - the payoff for taking action.

(Fencott et al. 2012)

Attractors

- **Choice points** - a choice of competing attractors or a choice of alternative intentions for the same attractor. They can arise from the simultaneous perception of competing attractors or as a result of multiple possible intentions suggested by a single attractor.
- **Retainers** - Groupings of surprises that constitute major sites of interest and/or interaction that seek to deliver the purpose of the VE as identified by requirements and conceptual modelling. Firefight in SinCity are good examples of retainers.
- **Challenge points** - group of surprises that constitute major sites of interest and interaction, for example, mini-missions, firefights, puzzles. They are obstacles which if unresolved prevent further progress in the game.
- **Routes** implicit or explicit - groups of surprises that guide participants round an environment and seek to make sure that all major content is found and made use of.

(Fencott et al. 2012)

A further subdivision of attractors is defined by Fencott et al. is not exhaustive but does give an indication of the complexity and detailed level to which they define their model of aesthetic agency. Attractors may be characterized according to the reasons they draw attention to themselves, as:

- **Mystery objects:** Partially obscured/revealed objects, strange or unknown objects, e.g., both closed and open doors and doorways.
- **Active objects:** Movement, flashing lights, sounds changing pitch or volume.
- **Alien objects:** Objects that belong to another world, game, or context altogether, 2D maps, strange symbols to indicate the end of levels.
- **Sensational objects:** Objects that attract attention through nonvisual senses, spatialised sounds, vibrations, smells, and so on.
- **Awesome objects:** Large, famous, or expansive objects.
- **Dynamically configured objects:** Objects that are relocated in space/time.
- **Complex:** Objects made up of a number and possibly a variety of attractors, perhaps seen at a distance.

(Fencott et al. 2012: 93 - 94)

There are three further categories of attractors suggested by Fencott et al. which relate to the emotional involvement in gameplay. These are false attractors, objects of desire and objects of fear:

- **False attractors** - objects that can make a major contribution to gameplay and dramatic tension, they do contribute surety but do not offer reward.
- **Objects of desire** - objects that have some benign significance to the player and more particularly to the task at hand.
- **Objects of fear** - objects that have some malign significance to the player and to the task at hand.

(Fencott et al. 2012)

Connectors

Connectors are perceptual opportunities that help players by supporting planning to achieve intentions stimulated by attractors. Connectors are the means by which players make connections, both mental and structural, between attractors and rewards. These help players to satisfy their intentions and deliver objectives:

- **Connectors** - content that helps the player to retain focus on a current goal.

(Fencott et al. 2012)

Rewards are offered for achieving an action and come in three forms:

- **Local** - seek to keep players in a particular place in the game.

- **Dynamic** - may be encountered unexpectedly by players.
- **Peripatetic** - may be offered wherever players are in the game.

(Fencott et al. 2012)

As Fencott et al. suggest rewards are the connotations we place on perceivable consequences, the beneficial changes that result from exercising agency (Fencott et al. 2012: 97). Some general principles apply to rewards:

- Players should usually be rewarded if they follow attractors.
- Rewards do not have to have attractors.
- Rewards can be their own attractors.
- Rewards can have multiple attractors.

(Fencott et al. 2012)

Aesthetic agency and perceptual opportunities have much to offer the theory of live performance and the structures above will be employed in Chapter 4 and Chapter 5 to show how they link to aid the analysis of comparative case studies. In particular intention, perceivable consequence and narrative potential linked with attractors and rewards are used to analyse immersion while the concepts of presence, co-presence and transformation link to surprise and reward in the analysis of identity.

3.6 Model of Identity

While the theatrical models proposed by theorists in this area have assisted in the design of the thesis, I found a lack of structural explanations which could assist with the analysis of identity in live theatre within the context of digital culture. William Trochim (2017) indicates that it is from the starting point of participant observation as part of a grounded theory approach that will eventually help formulate new theories. Therefore, I proposed a diagram which I call the Model of Identity which describes the self in a continuum from the entirely virtual to the entirely real, and the relationships with others from the entirely virtual to the entirely real. The Model of Identity is used in Chapter 5 to help reflect on the nature of interaction between an individual and others they encounter in both the real world and virtual environments.

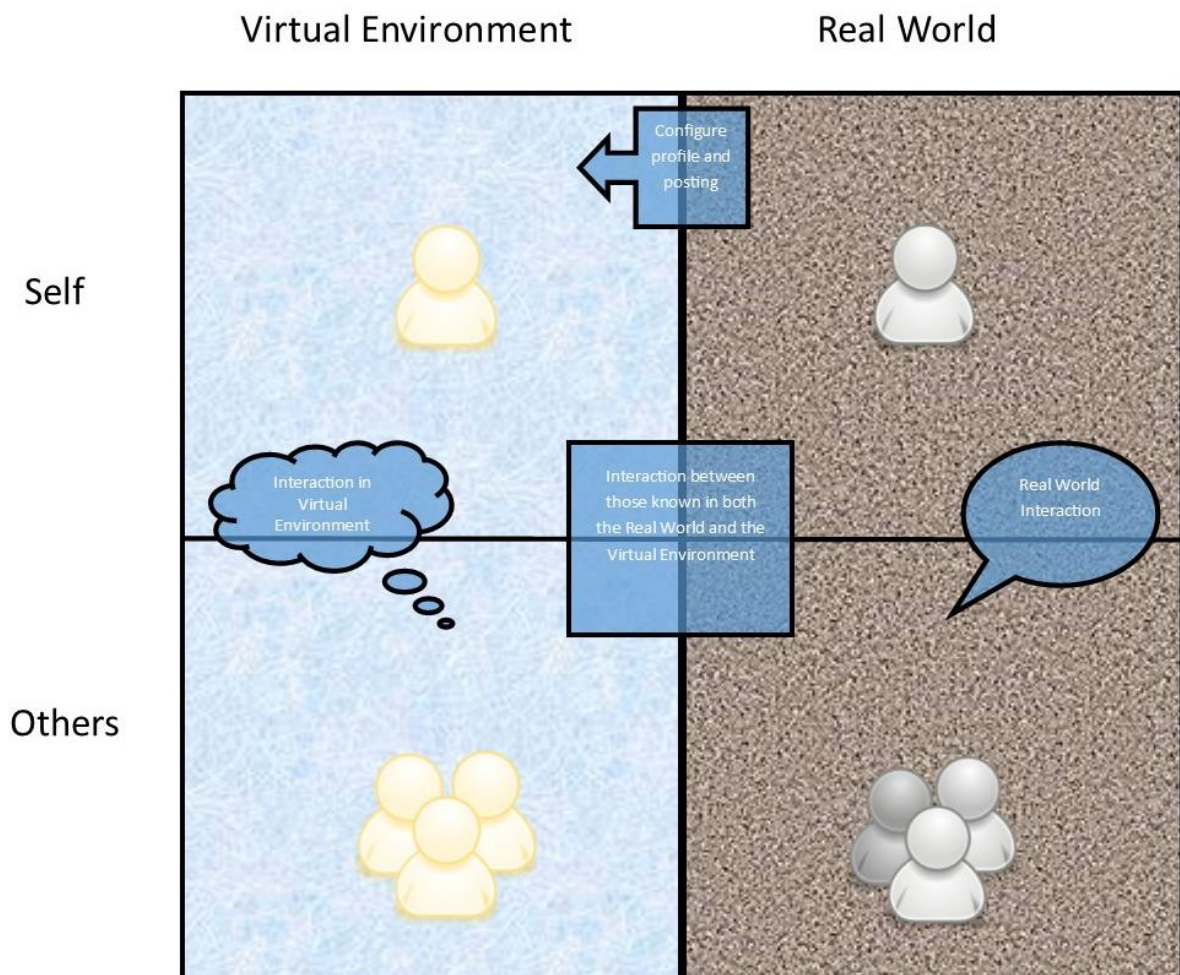


Figure 7: Model of Identity Diagram (Marshall 2017). © Greg Marshall

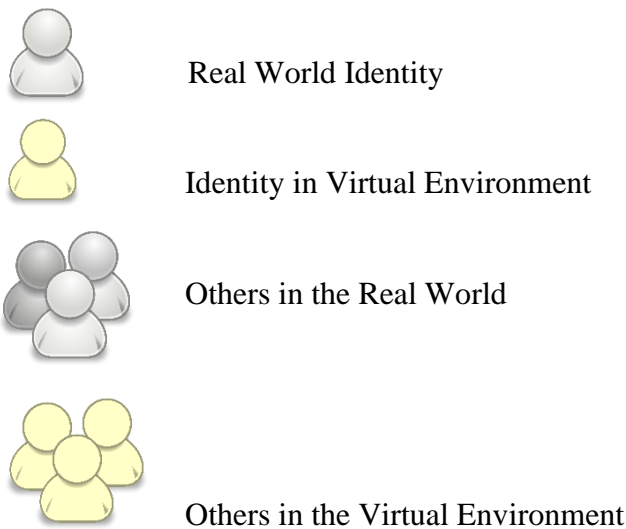


Figure 8 illustrates the Model of Identity. This comprises four quadrants, one for the real world self, one for the virtual world self and two more for the real and virtual world of others. As this is a new model it has not been proven or tested, however in discussion with psychologists Lisa Wright and Richard Marshall (Wright and Marshall 2017) the model presents an effective discussion starting point for psychological study and for myself is an aid for the study into identity within this research. The intersections between the quadrants are directional in that the interaction between real world identity and virtual world identity is typically from real world to virtual world, while the intersection of the quadrants Others, Real and Virtual world are bi-directional. The diagram does not take into consideration that which is referred to as autobiographical memory: the psychological system consisting of recollections of an individual's life based on specific experiences, objects, people and events at particular times and places in their life, and not associated with other cognitive functions.

There are related research areas, not associated with the Model of Identity, which should be acknowledged, particularly the research of Koles and Nagy (2012), *Who is portrayed in Second Life: Dr. Jekyll or Mr. Hyde?* Here Koles and Nagy compare identity scores in Second Life with real world identities using questionnaires and psychological statistical techniques, with four subscales of collective identity, social identity, relational identity and personal identity showing that social identity had a significant importance in the virtual world:

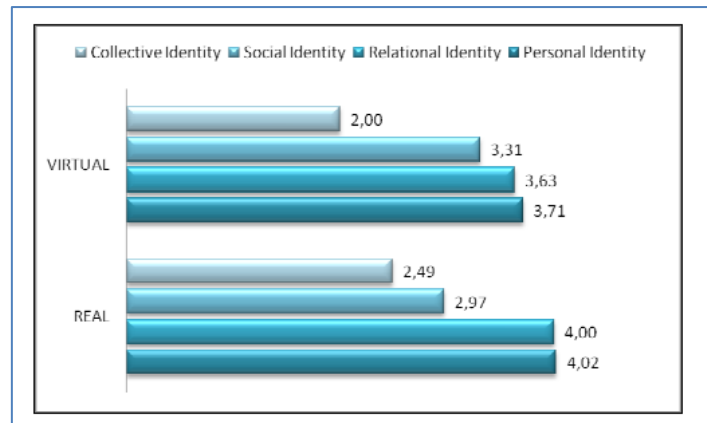


Figure 8: Average values of real life and virtual identity scores along the four identity orientation dimensions (personal, relational, social and collective), (Koles and Nagy 2012). © Peter Nagy (Courtesy of P. Nagy)

Koles and Nagy carefully analyse like for like in the virtual and real world, showing that social identity in the virtual world is of increased importance to individuals. Alternatively, a psychological research book edited by Peachey and Childs (2011) called *Reinventing ourselves: Contemporary concepts of identity in virtual worlds* contains a number of relevant chapters; specifically research by Gilbert et al (2011: 213 – 234) describes the congruency of personality traits in the real world and virtual world of Second Life, where 104 participants had more than one avatar in Second Life. Several resultant charts indicate congruence between age, gender, physical body type, five personality traits (extraversion, agreeableness, conscientiousness, neuroticism and openness) and reasons for having more than one avatar in Second Life.

In acknowledgement of psychological tests, which this research does not scrutinise, the normal practice with emergent theory would be to test the theory using hierarchical multiple regression factor analysis. This is a form of multiple linear regression used to assess whether one continuous dependant variable can be predicted from a set of independent variables (Marshall and Wright 2017). Variables or factors for virtual identity might be represented by such things as time spent online, activity online, number of profiles, while those for real world identity might be represented by time spent offline, number of real-world groups, property ownership, job and age.

To help explain the diagram above the sectors and intersection are described as follows:

Real World = That which pertains to a physical and non-digital engagement with life – the real world might have a number of definitions and distinguishing features,

however in general, by real world I mean that which is in existence as opposed to one that is imaginary, simulated or theoretical.

Virtual Environment = That which pertains to a digital engagement with life – the virtual environment I refer to is defined by those digital communities which only exist as an online experience. Examples include LinkedIn, Pinterest, chatrooms and webchats, dating sites such as Tinder and Grindr, social media communities in Facebook and Twitter, and more complex environments such as Second Life or multi-user gaming environments.

Real-World Identity – The real-world identity is presented in the tangible, non-digital real world. This is our existential self. Real-world identity comprises our physical attributes of gender, shape, size, ethnicity and other corporeal elements.

Virtual Environment Identity – The virtual identity comprises the profiles that are available about a particular individual such as the profiles that can be found on social media.

Interaction between Real World Identity and Virtual World Identity – Interaction is typically unidirectional, from real-world identity to virtual identity, where the real world individual creates virtual world identities or profiles for various contextual purposes.

Relationships which are uniquely Real World – Represents the relationships which are uniquely real world, that have no virtual world equivalent and only exist in real-time.

Relationships which are uniquely in the Virtual Environment – Identifies those relationships which are uniquely virtual environment relationships; these relationships do not exist in any form in the real world, and there has been no previous contact between an individual and the other in the real world, either by face to face meetings or telephone conversations.

Relationships which are both Real World and Virtual World – In the central square there are special relationships which are both online and occur in the real world, where

the relationships coexist. The real-world face to face relationship with someone we have met more than once, whose name we know and who knows our name, is extended, augmented and enhanced by existing in the virtual world as well. Interactions are bidirectional and may be affirmative or negative.

Others with whom the individual has no specific relationship – The two quadrants which make up virtual and real others contains individuals with whom we have no interaction, whom we have never met either in the real world or in the virtual world and with whom we have no interaction.

The Model of identity, therefore, locates the self in the real world or within a virtual environment. The individual must negotiate interactions from the self or between others they encounter in both the real world and virtual environments. This model helps visualise the placement of the self, others and their interactions and is used in analysis in Chapter 5.

3.7 Chapter Summary

This chapter has introduced and discussed the choice of grounded theory as an approach for this study. From 2012 to 2018 the methodology focused upon the analysis of aesthetic agency, immersion and identity in digital culture and live performance through the lens of gaming theory. The thesis questioned if performance theory and experience of a growing digital culture informed live theatre practice and the meaning-making process. Grounded theory assisted with the structured approach to data gathering, collation and analysis.

To aid discourse two schematics were created; one to describe the structure of aesthetic agency and the second to describe a model of identity. The structure of aesthetic agency comprises intention, perceivable consequence, narrative potential, transformation, co-presence and presence and leads to a further substructure of perceptual opportunities. These are theoretical gaming frameworks that aid the development, analysis and delivery of digital games. Aesthetic agency and perceptual opportunities are particularly relevant to the development, analysis and delivery of immersion and identity in live performance. Intention, perceivable consequences and narrative potential are relevant to the analysis of immersion while transformation, presence and co-presence are relevant to the analysis of identity though the elements of aesthetic agency are not mutually exclusive to either immersion or identity. While aesthetic agency classifies

the pleasure we gain through participation, perceptual opportunities define the objects, actions and rewards found in participative performance making. Perceptual opportunities may draw our attention towards a certain light, sound or object which leads to a choice and subsequent reward for our actions. Using aesthetic agency as an approach to the development and analysis of live performance may enhance future participative performance events.

The model of identity was described in schematic form to aid the navigation of identity during analysis in Chapter 5. The model of identity describes the disposition and relationships of an individual while moving between the real world and virtual environments. Key features of the schematic are the interactions an individual has with the environment and the relationship an individual has with others. Interactions may include adding or updating information about their virtual selves or responding to posts from others. The relationship an individual has with others may include those where an individual does not know the other person in the real world or where an individual knows another person in both the real world and in the virtual environment. An individual may value the interactions with others they do not know in a virtual environment more than interactions with others in the real world.

Web searches revealed statistics concerning the currency of the term *digital culture*, the current state of internet usage and the capacity and attendance of theatres. It was found that the wider definition of arts was engaged in new media news articles and that performing arts used a blended combination of news articles, social media and performance specific websites.

The next two chapters investigate immersion and identity in live performance through the lens of aesthetic agency. While immersion and identity represent different dispositions and qualities of individuals experiencing live performance, they are linked through the theory of aesthetic agency and make considerable use of perceptual opportunities which in turn aids the participants meaning making process.

4. Immersion and the Live Experience

...both immersion as absorption and immersion as transportation are made up of a number of experiential phenomena rather than being a single experience we can discover and measure. The various forms of experience that make up involvement need to be considered on a continuum of attentional intensity rather than as a binary, on/off switch. (Calleja 2014: 222)

4.1 Introduction

Calleja argues that immersion is not one specific sensory experience but a spectrum of multiple encounters. He notes that the term ‘immersion’ is problematic, as it can be used for many experiential facets from digital games to painting. Gaming theory of aesthetic agency will be used as a lens through which to view the chosen productions, to help show how digital culture informs live theatre and performance. The analysis will demonstrate how the audience can experience alternative modes of production through a sense of discovery, personal achievement, greater aural and visual stimulus, implicit role-play and multiple modes of interaction and participation, where themes of illusion, proximity (referred to as aesthetic proximity), discovery, and experience build an immersive locus for the observer. In this chapter, the thesis will show how the immersive locus relates to live performance attributes; as agency in interaction and participation, the acquisition of learning skills and the understanding of social rules (within the context of a production), aesthetic proximity to points of engagement within the performance, the use of narrative or gameplay, the suspension of disbelief and the use of physical or imaginary boundaries. I will argue that it is choice that empowers the audience and participants and informs the modes of immersion and aesthetics within new theatrical experience in the context of digital culture. Gaming and performance theory are employed to analyse immersion in terms of aesthetic agency Fencott et al. (2012), presence and flow Machon (2013), Weibel and Wissmath (2011), Csikszentmihalyi (2000). (See section 2.2 for more detail regarding gaming theory). A structural approach of perceptual opportunities proposed by Fencott et al. (2012) by which immersed participants navigate the mechanics of interaction is drawn on to further understand immersion in terms of digital culture. See section 3.5 for more detail on perceptual opportunities.

Immersive experience

To examine aspects of immersion in live theatre four large scale outdoor performances were selected: *As the World Tipped* (2014), *The Four Fridas* (2015), *Wings of Desire* (2012) and *The Voyage* (2012). These four productions were selected as they were immersive works of a common format. Specifically, large-scale outdoor immersive productions. Using these four productions allows the analysis of the function of illusion, aesthetic proximity, discovery and experience in a comparative manner as supported by grounded theory. Each production has its strength but in isolation it would be more difficult to argue the points of gaming theory, flow and presence in totality. It may have been possible to take an alternative individual production such as *Sleep No More* or *Can You See Me Now?* as a case study, however, the range of theoretical analysis might not have been as broad as with four productions in comparison. Prior analysis of *Sleep No More* and *Can You See Me Now?* points to a video game-like approach of delivery and, while I acknowledge theory in terms of gamification and the application of technology to live theatre this is outside the scope of this thesis.

Performance theorists, such as Murray and Lichty, who work in virtual or mediated environments often take the view that it is the real-world environment that is being modified and informs the opportunities for performance-making in virtual environments. It is the differences between the performance in virtual environments that reveal new assessments of performance and meaning-making in the real world. While the following theorists specialise in virtual performance making, their concepts would equally assist in the understanding of immersion. Murray (2012: 19) defines representation in virtual environments through her four affordances of procedural, participatory, spatial and encyclopaedic. Mary Anne Moser (1996: xxiv) in *Immersed in technology* described how work is developed to interpret the real world in the virtual medium; that virtual environment provides a challenging and stimulating point of entry where artists can acquire new currency in mass media through renegotiating their positions in reworked aesthetics. Lichty (2014: 445) describes the four modalities of art in virtual environments as transmediated, cybrid, client/browser, and evergent. Each of these theoretical approaches are specific to the trajectory of the theorists, however, aspects of each are useful to this thesis. Murray identifies the participatory aspect of virtuality while Moser demonstrates an opportunity to experiment in new environments. Likewise, Lichty expresses the possibilities of virtual performance but extends this to express movement from the virtual to the tangible (2014: 9).

Alston, referring to what Fencott et al. would call flow, pleasure and perceivable consequences, suggests that ‘the most powerful affects in immersive theatre are usually achieved when the machinery of world representation is in full flow, and the audience’s critical capacities give way to the seductiveness of indulging in affective experience’ (Alston 2016: 219). He continues that ‘the rewards that accompany commitment to productive participation are the same that make participation in immersive theatre especially productive: the production of powerful affects as a centrally significant feature of immersive theatre aesthetics’ (2016: 220). Machon has her own approach and theory regarding immersive theatre. While focusing on the immediacy and the intimacy of immersive theatre (Machon 2013: 39) she also describes the broad spectrum of attributes immersive theatre comprises including being ‘in its own world’, awareness of space, tailored scenography, designed sound, duration of interaction, blurring boundaries with interdisciplinary/hybridised practice, focus on bodies, complicit nature of audience, care of audience during participation, what is the intention of the performance and expertise of the creative team to deliver the immersive experience (Machon 2013: 93 - 100). Breel defines demand characteristics of the immersive experience, what Fencott et al. would call presence and co-presence, perceptual consequences and the building of narrative potential through experience as being embodied to the participant and includes interpreting the context, engaging with others, executing tasks, playing games, being part of the performance, determining their role within the system, reacting to the demand characteristics and self-reflection (Breel 2017: 202). Bittarello comments that the similarity between predigital and digital worlds is that both predigital and digital virtual worlds are immersive, an immersion that requires active engagement and enlarges readers’, listeners’, viewers, and users’ experience: they learn skills and social rules and test one’s limits and abilities through play (2014: 107). Bittarello’s comments reflect those of Fencott et al. of narrative potential where a participant experiences pleasure through the build-up of agency into meaningful patterns through a process of exercising agency (Fencott et al. 2012: 199). Immersive theory in performance studies and digital culture can be found in sections 2.2 Performance Studies and 2.3 Digital Culture in the literature review.

4.2 The productions: *As the World Tipped*, *The Four Fridas*, *Wings of Desire*, *The Voyage*

These productions are all forms of intermedial performance using multi-modal performance techniques and highlight different immersive qualities within each production. The four

productions are examined through the themes of illusion, aesthetic proximity, discovery and experience. The large-scale outdoor events selected were specially devised to be a particular form of performance, sometimes being called an immersive experience but not explicitly immersive theatre. The productions lend themselves to an investigation of certain aspects of immersion; *As the World Tipped* and *The Four Fridas* are compared for aspects of illusion and aesthetic proximity, while *Wings of Desire* and *The Voyage* are compared for aspects of discovery and experience. A current trend in the experiential theatre, known as Immersive Theatre, tends to focus on roleplay, close interaction with actors, audience participation, the audience in costume, and consumption of a meal and/or drink relevant to the experience. Recent examples of this genre are theatre experiences¹⁰ such as *Alice's Adventures Underground* by Les Enfants Terribles (2017), *The Great Gatsby* by The Guild of Misrule (2020) and *Faulty Towers, the Dining Experience* (2020) by Interactive Theatre International. Large scale outdoor events tend to focus on spectacle and the experience of 'being there' in the space. While the audience does not have to attend as a specific character, the production flow and audience interaction is carefully controlled and is described below.

As the World Tipped

As the World Tipped, performed by Wired Aerial Theatre, uses the Copenhagen Climate Change Conference in 2009 (Copenhagen Climate Change Conference - December 2009, 2014) as the backdrop for an allegory of global catastrophe because of man's effect on earth's climate though the conference was widely seen as falling far short of its good intentions and not achieving anything meaningful (Brookes and Nuthall, 2009). The production starts as a parody of the conference and then transforms into an illusionary performance of the destruction of the world, using a platform that changes from horizontal to vertical and is raised 20 metres above the ground. The production makes use of projection and suspended wirework against a backdrop of video projection and composed audio.

The space used in Birmingham, called Victoria Square, is surrounded by many prominent buildings. On the western side is Birmingham Town Hall, on its northern side is the Council

¹⁰ Other possible works might have been those of Punchdrunk, Colab Theatre or Blast Theory, which are rich in the creation of site specific works, with much emphasis on interaction and discovery, and in the case of Blast Theory, the adaptation of game play into technology-based urban landscape theatre experience. However, much has been already written about the work of these companies and their specific style of immersion.

House, on its eastern side is 130 Colmore Row and on the south side is Victoria Square House. The square is approximately 80 meters by 100 meters, and the hard environment has the effect of returning the sound into the centre of the performance area, something which might give an unconscious feeling of community within the audience. The environment also presents a physical boundary to the performance, while the projected images provide an imaginary boundary. The physical boundary is significant as it provides not only an enclosure for the audience to enter into but also an acoustic chamber in which to experience the audio effects. The use of projections as illusion is discussed further in Section 4.3 and acts as the virtual boundary in the production.

As the World Tipped is a production in two parts, the first being approximately ten minutes long and the second being thirty-five minutes long. The first part of the physical theatre production is executed on a raised horizontal stage/platform. It is in the open air and is set like a traditional stage facing the audience. The second part is performed in the vertical, with the platform now elevated by a crane to an impressive height above the ground, where projections are played upon the platform now acting as a screen, with performers using wires in aerial work against the video projected backdrop. The transition from the horizontal to the vertical takes approximately six minutes. The performers are principally involved in the creation of illusion, using aerial wire work coordinating with the visual projection and the audio. They then create the scenario-based performance of chaos due to climate change. The production is distinctly episodic, built-in sections from the fog-like ‘overture’ through the introduction to the multiple projected video sequences. Once elevated, the stage now resembles a computer screen on which video images are projected.



**Figure 9: Vertical platform showing the proximity of audience (Source: www.wiredaerialtheatre.com 2013) © 2019
Wired Aerial Theatre (Courtesy of Wired Aerial Theatre)**

Figure 9 shows the performance area as a vertical projection screen; most importantly, the proximity and placement of the audience is visible in this photograph. There is a barrier around the entire stage area, and the large crane is seen in the background.

The opening section of *As the World Tipped* acts as an overture or introduction to set the mood, and is atmospheric in the setting. The stage is bare and unlit, and only smoke illuminated by floodlights above the audience area is present, with backing track music to support the visual effect. The purpose of this introduction is to build a state of anticipation and readiness in the audience for the actual performance. The smoke effect with the lights represents a portent of the disaster of the earth's atmosphere being polluted.



Figure 10: The Copenhagen Conference Document Distribution Centre (Source: www.youtube.com 2013) (Courtesy of Wired Aerial Theatre)

Figure 10 shows the set and performers in the Document Distribution Centre at the Copenhagen Conference. Actors are sorting conference packs for attendees while music and voice-over play. The voice-over describes the current state of the climate and names some endangered animals.



**Figure 11: Transition between horizontal and vertical with the audience (Source: www.youtube.com 2013) © 2019
Wired Aerial Theatre (Courtesy of Wired Aerial Theatre)**

Figure 11 shows how Wired Aerial Theatre uses the transitioning of the platform from horizontal to the vertical. The production used this to significant effect as objects and performers slid off the end of the platform.



**Figure 12: Vertical performance space showing projection and players (Source: www.youtube.com 2013) © 2019
Wired Aerial Theatre (Courtesy of Wired Aerial Theatre)**

Figure 12 is useful to show the type of performance space Wired Aerial Theatre use. Wire workers on the side of the platform, just visible in the picture, assist five artists in the centre. Using music and voiceover, multiple scenes are played out where the climate catastrophe gets worse. Images of computer screens, buildings, graphs and cliff faces are used, where the actors ‘fall’ into the image or ‘climb up’ moving images in an illusory manner. Reviews at the time are complimentary, Alexander Edser describing online how the performers synchronise with astounding skill their movements to the screen, often appearing to walk on the images. Continuing, he states that this is a ‘dizzily exciting effect and gives rise to a series of powerful and lasting images, particularly as the performers at this distance and height appear tremendously vulnerable and fragile’ (Edser, 2013). Another review states that *As the World Tipped* is technically flawless, in that the technical side of it is carried out perfectly. They continue that the performers interact with the footage being projected onto the screen, whether

that be running up an ever-increasing global temperature chart, or vaulting through the vast swathe of legislation being created in the talks on how to tackle climate change, and that the crowd were very impressed (Sullivan, 2013). The production ends with images of oil tankers, refugees and then storms of a global scale which finally destroy all life on earth including ourselves.

The Four Fridas

The Four Fridas is a production presented as an outdoor theatre event that celebrated the life and work of the Mexican artist Frida Kahlo. Audiences were told that they would be immersed in a visually thrilling experience, integrating elements of ritual, music, narration, contemporary dance and aerial choreography, played out against stunning video productions in the sky (GDIF 2015). *The Four Fridas* was part of the Greenwich and Docklands International Festival and took as its theme four aspects of Frida Kahlo's life. A vast arena configuration was created with a screen/performance area to be used by Wired Aerial Theatre, a horizontal stage and platform in front, a transverse performance area with seating East and West of the venue and at the north end a huge sculpture depicting a crash incident which took place in Frida Kahlo's life. The presentation environment was in front of the Royal Artillery Barracks in Woolwich, the longest continuous façade in the UK, on the enormous parade grounds.

The production is quite short at forty-five minutes, and starts quite late for UK audiences at ten p.m.; however, there is a Mexican themed market open two hours before the show and an opportunity to walk around the performance space. The performance is divided into four sections representing air, earth, water and fire as elemental attributes against which to frame the story of Frida Kahlo. The performance starts with fireworks which represent air and works its way through Frida Kahlo's life. Next, the young dancers of Hoffesh Schecter, representing earth, show Frida Kahlo's interest in communism and the oppression of workers. Her art, including *What the water gave me*, is represented on screen with Wired Aerial Theatre and sculpture and fire representing her accident at eighteen years of age, and her links to ritual Mexican life through the fertility rite of the Voladores.



Figure 13: The Four Fridas Wired Aerial Theatre (Source:www.notey.com 2015) (Courtesy of Wired Aerial Theatre)

In Figure 13 the southernmost aspect of the performance space is displayed, showing the projection screen with fireworks behind, below in Figure 14 you can see some of the audience members use the arena space in front of the Voladores and the seating behind. The horizontal stage area is used both for sculptural presentation and dance performance, while the vertical screen is similarly used by Wired Aerial Theatre as they did in *As the World Tipped*. To the right of the screen can be seen the façade of the Royal Artillery Barracks which are quite a distance away. Beyond the screen and to the left, there is empty parkland and parade ground.



Figure 14: The Voladores (Source: www.hyperallergic.com 2015) ©2019 Hyperallergic Media Inc (Courtesy of Hyperallergic Media Inc)

In Figure 14, a photograph taken from the east looking west, can be seen the quite spectacular Mexican Voladores; performers suspend themselves upside down and spin from a thirty-meter pole. This aerial act is presented in the centre of the arena, and in the photo behind the pole can be seen the western seating area and behind this the facade of the Royal Artillery Barracks. A few audience members can be seen in the promenade around the Voladores. It was the most spectacular part of the production and on the night I watched the performance had a background of a clear sky and a full moon.



Figure 15: Bus Crash Sculpture (Source: www.hyperallergic.com 2015) ©2019 Hyperallergic Media Inc (Courtesy of Hyperallergic Media Inc)

Figure 15 shows the large sculptural piece depicting the terrible accident which Frida Kahlo suffered in her younger years. This is placed at the northern end of the arena, and behind the sculpture is the entrance to the arena and food and drink stalls. Reviews describe the disparate elements of *The Four Fridas*: fireworks, narration, dance, aerial choreography, video projection which struggle to blend into a seamless whole for a running time of just 45 minutes, and that if you did not know much about Kahlo on entry you would be unlikely to be any wiser on exit (Mountford, 2013). *The Four Fridas* will be analysed in section 4.3 highlighting the key features of illusion and proximity. Many elements are employed in the delivery of this production with the intention of creating an immersive effect. These included site, pre-performance themed stalls, large scale mis-en-scene, multiple points of presentation, presentation which processed through the site and multiple forms of performance styles. A fixed spectatorial point of view affords convenience to the audience member but detracted from an immersive feel which might have been achieved through a closer promenade format for the audience. The features of this production will be compared with *As the World Tipped* with regard to illusion and proximity.

Wings of Desire

Wings of Desire was presented in May 2012 and was produced for the International Dance Festival of Birmingham. It is an adaptation of an original 1980s film by Wim Wenders set in Berlin, which was later remade into a Hollywood film called *City of Angels* starring Nicholas Cage and a 1990's sequel *Far Away so Close*. The production, directed by Yaron Lifschitz, is a story about an angel, Damiel, who falls in love with a circus trapeze artist, Marianne, and wishes to become human. It is a love story involving transformation which was interpreted through music composed by Goldie, spoken narrative and poetry, dancing by 2Faced Dance Company, acrobatics by Circa and video mapping projections onto Birmingham Town Hall.

The production was developed as an immersive experience using buildings around Victoria Square where performers stand on top of five-storey buildings, abseil and perform on the fronts of the buildings to represent angels observing humans. The performance, which lasts just over an hour, is broken up into a series of episodes delivered in turn by the angels, Goldie, the acrobats, the dancers and finally video mapping projections. Goldie doubles as a master of ceremonies and a former angel who has already come down to earth and become human. The narrative was adapted for Birmingham and made references to local venues and used stories of local people within video projections. Circa and 2Faced Dance Company perform twice with acrobatics and contemporary dance, interspersed with dialogue provided by Goldie and other actors.



Figure 16: Wings of Desire Performance Area (Source: www.youtube.com 2012) © 2019 Swift Films (Courtesy of Swift Films)

Figure 16 shows the *Wings of Desire* performance area¹¹. It is also the same performance space for *The Voyage*. In the photograph can be seen the set for *Wings of Desire*, with the façade of the Town Hall and the pillars on the left of the photograph. On the top left can be seen large housings for the pair of projectors for the video mapping, in the centre a full-size double-decker bus and finally at the right of the image an elevated stage while on the upper right is the balcony from which performers speak. Surrounding the square are the building rooftops from which angels appear. The production is performed in the round, with the audience in the centre of the set.

¹¹ The performance space is entirely within Victoria Square, Birmingham.



Figure 17: Wings of Desire Aerial Performance (Source: www.swiftfilms.co.uk 2012) © 2019 Swift Films (Courtesy of Swift Films)



Figure 18: Wings of Desire Aerial Performance Close Up (Source: www.swiftfilms.co.uk 2012) © 2019 Swift Films (Courtesy of Swift Films)



Figure 19: Wings of Desire Video Mapping (Source: www.swiftfilms.co.uk 2012) © 2019 Swift Films (Courtesy of Swift Films)



Figure 20: Wings of Desire Video Mapping (Source: www.swiftfilms.co.uk 2012) © 2019 Swift Films (Courtesy of Swift Films)

Figure 17 and Figure 18 display the penultimate scene, which is significantly dangerous aerial work. Both Damiel and Marianne descend from the top of the Birmingham Town Hall, after which the final video mapping projection is displayed. Zoë Anderson of *The Independent* stated that *Wings of Desire* starts with ‘angels roosting on rooftops, white-clad figures silhouetted against a darkening sky. It ends with an astonishing blast of digital imagery, Birmingham’s Town Hall is transformed as the performers move across it’ (Anderson, 2012). The final and longest scene, shown in Figure 19 and Figure 20, lasts nearly eight minutes and uses

synthesised music composed by Goldie with diegetic sound effects that are synchronised with the projection of the video mapping. *Wings of Desire*, due in large part to the sophistication of the performance elements in the production, shows how providing the audience with the opportunity to discover and enjoy a unique personal experience aids the delivery of an immersive event.

The Voyage

The Voyage was performed in June 2012 in Victoria Square in Birmingham, in the build-up to the Olympic Games. The main feature of the large-scale production was a large fifty-foot ocean liner set, built in front of Birmingham Town Hall, upon which more than one hundred and forty community performers worked alongside Midlands-based dance company *MotionHouse* and Australian-based *Legs on the Wall*, an aerial performance company. The professional performers included approximately 15 dancers from *MotionHouse* and six from *Legs on the Wall*. There was also a large community choir and community volunteers in a programme called *Quest* made up of young performers from Birmingham Ormiston Academy, Coventry PAS Youth Dance, MotionHouse adult group, Nova, Playbox Theatre, Solihull Youth Dance Company and Stratford Upon Avon College. For musical support, especially composed musical arrangements by Sophie Smith and Tim Dickinson were performed by a gospel choir and brass band from Birmingham's Town Hall and Conservatoire.

The production¹² was episodic, lasting one hour in total, with sections of boarding the cruise ship, aerial acts representing love duets, storm and chaos sections, choral live music sections, and finally at the end a combination of being lost at sea and hope for the future as an ending.

¹² The production not only had the live elements during the performance but also engaged with the community beforehand and also developed a performance exhibition and life stories after the performance. The production is still available to experience through a dedicated website (*The Voyage*, 2012) and YouTube videos (*The Voyage* - Sunday 24th June, Victoria Square, Birmingham, UK, 2018).



**Figure 21: The Voyage Constructed Performance Area (Source: www.thevoyage.org.uk 2012) © Paul Machacek
(Courtesy of Paul Machacek)**

Figure 21 shows the set for *The Voyage* with the ocean-going liner which was constructed in front of Birmingham Town Hall. On the vessel can be seen performers in the middle on several levels, and two masts on either end of the liner with a wire running between them. The wire is used for aerial performers. On the façade of the liner can be seen projections which use video mapping to project onto certain parts of the boat and the performance space. Projections are onto the boat itself, but at other times they are behind the boat and the façade of the Town Hall.

The production of *The Voyage* is mostly performed towards the audience, who face the boat. To the left-hand side of the boat is a raised podium for a 30-piece orchestra and choir and to the right is another raised area for a military band. The audience space is also used as a performance area, with performers interweaving between the audience at certain points. Figure 22, Figure 23, Figure 24 and Figure 25 show the interaction between performers and audience in *The Voyage* as the marching band, passengers, bubbles and life rafts are placed in the audience space. *The Voyage* demonstrates how audiences may experience participation, learn skills and social rules and employ tactile senses through discovery.



Figure 22: The Voyage Marching Band in Audience (Source: www.youtube.com 2012) © Claire McMurray
(Courtesy of Claire McMurray)



Figure 23: The Voyage Passengers in Audience (Source: www.youtube.com 2012) © Mark McNulty (Courtesy of Mark McNulty)

Figure 22 shows a marching band moving between the audience, in Figure 23, the dancers with suitcases and in Figure 23, the performers are in bubbles or zorbs.



Figure 24: The Voyage Dancers in Bubbles (Source: www.youtube.com 2012) © Mark McNulty (Courtesy of Mark McNulty)



Figure 25: The Voyage Life Raft in Audience (Source: www.youtube.com 2012) © Katja Ogrin (Courtesy of Katja Ogrin)

The marching band, dancers and bubbles are all at ground level in the audience space, and this becomes an opportunity for considerable interaction between audience and performers. The life raft moves slowly through the audience and is visible to all audience members as it is raised and lit explicitly with its optimised lighting features.

The production uses music, song and voiceover through several scenes. Wherever possible performers work in the audience area and sometimes interact with the audience. The first scene involves boarding the ship, with all passengers arriving with suitcases. A marching band plays, and as they board two stowaways are seen using ropes to climb on board in secret. As the ship departs, passengers wave goodbye and find their cabins. The following scenes involve love onboard the ship, which commences with an aerial act followed by multiple couples partnering around the ship. A storm then disrupts the journey, and all the while, video mapping projections play upon the ship, displaying the building storm. Dancers react to the storm and fall to the decks. The ship eventually sinks, drowning many passengers, bubbles are projected upon the ship and zorbs appear in the audience area, with survivors swimming to the surface. A life raft then floats slowly across the audience area, after which the souls aboard the ship reappear and wave farewell, using illuminated suitcases.

4.3 Immersion Through Illusion and Proximity

The large-scale open-air performances of *As the World Tipped* and *The Four Fridas* provide an opportunity to examine immersion through the themes of illusion and proximity using the gaming theory of aesthetic agency, presence and flow. In *Being Present in a Virtual World*, Giuseppe Riva and John Waterworth point out that users ‘react to virtual environments in instinctual ways that suggest they believe, at least for a short time, that they are immersed and even present in the synthetic experience’ (Riva and Waterworth 2014: 205). In this way, the audience in immersive environments feels the effect of multimodal sensory input and the psychological perception of being there (2014: 205). It is in the space between the audience and performance that illusion occurs in a theatrical context. In virtual environments, a procedural boundary may be created, which may indicate edge and hence some proximity to virtual objects and action. Theatre is similar; while there is always some physical boundary, there is the personal psychological space and the very special space created between the audience and the performance.

Agency and Flow

Applying the structure of Fencott et al. to assess *The Four Fridas* in terms of agency and the interplay between intention, perceivable consequence, narrative potential, transformation, co-presence and presence reveals a format with potential which is unrealised. Attention is an important feature of immersion according to Grimshaw, Charlton and Jagger (2011: 6 – 7), where it is central to cognition in the subject, and controlling the attentional resource of the subject when there are more complex tasks to accomplish. Performance should attempt to do both, gain the attention of the audience and then control the attentional resource during the more difficult parts of the production. When I was observing *The Four Fridas* I did not have a clear understanding of the narrative presented and the monologues, that were supposed to guide me through the transitions in Frida's life, were difficult to understand. I felt disconnected from the production and I lacked the hoped-for engagement with the narrative. Intention, consequence and narrative potential eluded both myself and the commentators; I felt that I had more anticipation of engrossment than I achieved during the performance. Lyn Gardner, reviewing *The Four Fridas* in *The Guardian*, was equally confused, saying that 'without the programme's help, it's hard to make head nor tail of what's really going on – or why. The text – an earnest, often impenetrable and sometimes giggle-inducing stream of consciousness – is so dense and overwhelming that it becomes a hindrance rather than a help.' She concluded that it was only in the dying moments when the production finally took off with the Voladores (Gardner, 2013). The intention is clear, as the production is described as an immersive experience, and the impressive venue of the Woolwich Arsenal Barracks, with a set of themed stalls available before the show offered real promise. The three elements of perceivable consequence, narrative potential and transformation are all impacted by the lack of proximity to any but the final set piece of the Voladores. I might have appreciated the perceivable consequences, and the narrative potential would have been more effective, had I been in the promenade, which in turn might have increased the possibility of personal agency. As for presence and co-presence, at the beginning, I certainly feel the potential to lose myself in the environment, but the idea of being co-present as a primary aesthetic pleasure (Fencott et al. 2012:55) requires many people and unfortunately, this performance was not well attended.

Flow is an extension of presence, and they are therefore related; one can be absorbed in the environment, but additional factors should be in play. Otzen (2015) suggests that there must be an activity for flow to occur and that there are attributes to flow; skills can be learnt, there may

be levels, goals and rewards. Otzen (2015: 4) continues that there may be a temporal element to flow, where the consciousness of passing time is diminished while cognitive engrossment is increased. Flow is indicated by participation in activities and while the opportunities for pre-show undertakings were limited, they were available. As Otzen points out, a person entering flow requires some skill to progress (Otzen, 2015: 3). Thus, those with prior knowledge and skill can draw on experience to enhance the feeling of immersion and enter a mode of flow. At *The Four Fridas* the audience may participate, engage with and investigate opportunities such as the themed stalls and matching costumed stallholders, and there were opportunities for participation, interaction and learning of etiquette while taking a place at the event. Weibel and Wissmath summarise flow as an immersion into an activity (Weibel and Wissmath 2011). Presence and flow, therefore, both have immersive qualities but are different variables within the same process. The interaction and participation at *The Four Fridas* represent the first two levels of immersion as suggested by Grimshaw, Charlton and Jagger. These are engagement and engrossment where engagement is the familiarisation with the configuration and opportunities of *The Four Fridas*. Engrossment is achieved through the emotional involvement with the productions which for myself occurs sometimes. For example, during the firework display, during the puppet scene and during the Volodores performance. Total immersion and hence flow, Grimshaw, Charlton and Jagger suggest is when the spectator has a lower awareness of the real-world physical environment (Grimshaw, Charlton and Jagger 2011:38). It is the state of total immersion that is lacking in my experience of *The Four Fridas*, due in part, to lack of aesthetic proximity and a static vantage point.

At the start of *As the World Tipped* there was the use of smoke all around the performance and audience area. According to Fencott et al. agency also comprises perceptual opportunities which are the methods by which participants navigate the mechanics of interaction and link back to aesthetic agency. Fortunately, it was a windless evening so the smoke hung effectively in the air above me. The fog acted as a connector between the audience and the production and the combination of audio, the fog and the audience together acted as an attractor to indicate the commencement of the performance. The fog also indicated the start of the narrative, like a splash screen or introduction on a computer game. Lighting was needed, as the production was at night and the smoke effect would not have been visible, while the use of lighting on smoke illuminated a greater performance area, immersing the audience at the start of the production. In this way, the audience is not only part of the performance but also complicit in creating the

pollution that is central to the narrative. The effects were analogue, required little technology and were informed through the appropriation of a horror film trope which utilises a foreboding fog. While clichéd in the film genre, due to the scale of the event, it appears a subtle illusion. The literary definition of this effect is called pathetic fallacy, as natural events such as lightning or thunder have human emotion attributed to them.

To paraphrase Karen Collins, when discussing gameplay the event is not to be viewed strictly as a separate space into which we may become immersed, we may more accurately speak of the audience being immersed in the event. It is the act of engagement that leads to the immersive experience (Collins 2014: 359). When I observed *The Four Fridas* at the beginning there was a special area before entering the main performance area which provided an opportunity to be immersed in the event. It was an ante-room to the show, immediately after the security entrance. The pre-show area was attractively laid out with bars, food stalls, craft stalls and some art installations and allowed for exploration and engagement. The pre-show area acted as an attractor to gain our attention, the layout of the stalls acted as connectors to guide us around the pre-show area and the reward is the perceivable consequence of our actions gaining pleasure from the interaction. Drinks and food such as cocktails, Mexican beers, tacos and burritos, appropriate to the occasion and location of Mexico where Frida Kahlo worked, were on offer to aid the illusion of transformation, presence and co-presence. For both productions the illusion was true; there is a pleasure gained from the feeling of being there, being with others and the transformative feeling of becoming part of a Mexican setting in *The Four Fridas*. And in *As the World Tipped* there was a transformation of the audience as a whole, complicit in the pollution of the environment, in preparation for the main performance.

The opportunity for engagement and engrossment was significantly less in *As the World Tipped* in comparison with *The Four Fridas* in terms of participation or interaction. However, for myself, a state of total immersion was achieved during *As the World Tipped* in the form of total absorption in the event. Csikszentmihalyi states that flow is achieved through the balance between challenge and skill to achieve total absorption or flow (Csikszentmihalyi 2000: 49). Grimshaw, Charlton and Jagger further suggest that the effects of immersion depend upon image, sound and controlling attention (2011: 35). It was the cognitive resource that was engaged in the challenging content of *As the World Tipped* with auditory and visual senses engaged throughout the production. After the smoke effect described earlier, the first section of the production involved the actors working in the “document centre” as the anonymous

operators of the conference. *Wired Aerial Theatre* then used the transitioning of the platform from horizontal to vertical to allude to the crossing of a threshold. The performers used this to great effect as objects and performers slid off the end of the platform. The effect gives the illusion of danger, and while the danger was not real the feeling of danger was and built a sense of anticipation, again engaging the attentional resource with visual stimulus. Fencott et al. refer to the pleasure of becoming someone or something else as transformation in aesthetic agency, here the pleasure is perceived by the audience through the feeling of danger and there is an illusion of the performers transforming. The transitional state changes the performers from recognisable people into objects of chaos; it is a liminal state which indicates the change of the performers into beings of otherness, from gravity-based humans into flying beings, when they perform their aerial work. As described earlier, the projected images are themselves engaging with the added impact of the aerial performers where a transitioning state of both the performers and the audience occurred. The audience members are implicated in the narrative and attended almost as acolytes to the proceedings; liminal beings in the transformative process that challenged myself and the audience in a cognitive manner and reinforced the state of flow and total immersion. The audience role was then modified to a *communitas* of beings who transform to an alternate state as implied by the changing orientation of the stage.

Presence

It is the combination of social presence, self-presence and spatial presence that supports the feeling of being there (Scarborough and Bailenson 2014: 133 - 136) and that which Fencott et al. refer to as co-presence and presence in the theory of aesthetic agency (2012: 50 - 51). Both Giannachi (2004: 6 -7) and Auslander (2014: 2) argue that the cultural currency of performance is predicated upon the disappearance and ephemerality of liveness, though they both recognise the nuanced positioning of virtual performance, where the remediation of the live performance creates a new form of liveness and re-appearance. Being there and having a feeling of presence in theatrical events is often non-ergodic when the event is passive, or not interactive¹³. Looking around, as I did, I could examine the space and wonder at the fog, audio and lighting at *As the World Tipped*; and at *The Four Fridas* I could explore the stalls and the set before sitting down.

¹³ However, it does require planning and preparation; clothing, chairs, food and digital devices may be useful. Tickets for the non-free events need to be purchased. The space used for the event needs to be navigated and a seating or standing position selected.

Andre Nusselder argues that presence and virtuality aid in man's struggle against absence, disappearance and loss. Virtualisation gives the opportunity to escape death and decay, and become technologies of care and presence (Nusselder 2014: 73). That is to say, there is a form of permanence when working with digital environments as the live digital event may be recorded and remediated in a new form of performative liveness (Auslander 2018: 69). The present self is re-performed, rendering the impression of the digital artefact faithfully. The opposite may occur in live theatre; the impermanence and ephemerality of live performance is a key characteristic of live performance (Lonergan 2015: 32) and according to Machon, 'live performance of the work is fleeting and only of the moment, never to be repeated in any form, yet it also lasts in the receiver's embodied memory of the event' (Machon 2013: 43). Our sense of being there is strengthened by the live attendance of an event, as Fencott et al. reinforce; there is a pleasure in being co-present with other sentient beings and being part of an event to the exclusion of the real world. According to Fencott et al., the feeling of being there and being engrossed to the point of losing track of time captures the direct link between agency and presence (Fencott et al. 2012: p50). Turkle supports Nusselder's idea when she notes that when opportunities for digital communication are not there, we feel lost (Turkle 2013:16). It is this anxiety that is the missing concept for understanding the current human condition. Turkle further comments that when we are stressed with the volume and velocity of our lives, we turn to technology to find us more time. But technology makes us busier than ever (Turkle 2013:17). We are anxious to belong, being present both virtually and in real life.

Aesthetic Proximity

In *As the World Tipped*, the physical proximity to the stage is very important to appreciate the illusion of the transition to the vertical and the subsequent aerial work. The sound of objects and people falling off the stage is visceral, exciting and engages a sense of danger with the greater aural stimulus. Cunningham points out that in computer games proximate objects tend to be grouped together and that elements that are similar to each other tend to be perceived as a unified group (Cunningham 2020). Caroux, Le Bigot and Vibert go further to argue that in complex tasks, that attention will be divided (Caroux, Le Bigot and Vibert 2011: 103). This is the case with *As the World Tipped* with all objects grouped together in the relatively confined performance space. While the stage is horizontal there is no visible or audio distraction in any other area. And when the stage rises to the vertical, the ground level mis-en-scene is unlit and removed from the line of anticipation and the attentional zone to aid the perceptual

opportunities afforded to the audience. The observation of the action was akin to the passive observation of risk-taking behaviours encountered with online videos available on various social media sites. I note that I was engaged in this process and felt I had been conditioned to observe with dispassion through the viewing of many such videos online, I was connected and felt close to the action. The feeling is similar to the voyeurism of watching 'fail' videos online, where some are funny and others genuinely concerning. The important point with any of the 'fail' videos is that they need to feel authentic and not be set up to be effective. Likewise, with this moment in the live performance, the sense of danger should feel authentic and present an apparent risk to the performers. In review, Alexander Ray Edser on *ReviewsGate* said of the moment that eventually the stage is vertical, it has become a screen on which gigantic moving images are projected. Of the performers, Edser suggested that they act as though they struggle to stay alive and that they synchronise with astounding skill their movements to the screen, often appearing to walk on the images (Edser, 2013). As Causey might reflect, this is a performance where the presence of life on stage is surrounded by the operations of death that demand our attention (Causey 2006: 57). Where life is the rare exception to the ubiquitous nature of death, the combination of multiple aerialists and multiple wire operators working together gives the impression of danger where the aerialists may really fall, collide or become entangled in each other's wires. Likewise, the ubiquitous nature of digital culture can give the illusion of participating in real life, but real and meaningful experiences are a rare exception.

The danger is a very special process to occur within a theatrical context and highlights the difference of this situation. Edser's direct comments that this was a dizzyingly exciting effect and gave rise to a series of powerful and lasting images, particularly as the performers at this distance and height appeared tremendously vulnerable and fragile (Edser, 2013). The choice for the audience at this point was to stay and be part of this change or to leave. The effect of staying within the *communitas* of the performance is to engage more closely with the immersion, to being absorbed and to suspending disbelief. Fencott et al. (2012: 50 - 51) analyse these moments in terms of intention, perceivable consequence, narrative potential, transformation, co-presence and presence. In live theatre, the analysis is more subtle than in computer games but is worthy of description. The intention is clear that there is a destructive force applied to the set and actors, the perceivable consequences are the destruction of the set and the continued elevation of the platform. The narrative potential is more elusive to me at this point and this is because of another feature described by Fencott et al., that of surprise.

According to Fencott et al. (2012: 93), surprises are non-mundane details that are not always predictable, but they do arise however surprisingly from the logic of the space consciously accepted. Surprises are calculated to deliver the memorable pleasures of the experience by allowing the audience to accumulate conscious experience. The surprise is that the platform continues to rise to an unpredictably high level and to an impossible state on which normal actors may perform. The narrative potential is extended to a whole new and unexpected environment. In the new and unexpected environment, the actors were transformed into beings with new skills and capabilities, apparently floating upon the surface of the elevated platform. The audience was also transformed into agents of complicity. We are both cause and effect of the transformation of the action we see. As audience we were both co-present with our fellow audience members and the actors, and by way of engagement in the flow able to feel presence.

Aleks Krotoski in her podcast *The Digital Human* states that we are now in a moment in time in which we are learning how to negotiate personal space boundaries (BBC 2019), so the personal space and the theatrical space become involved in a complex negotiation of boundary. Boundaries are a form of perceptual opportunity as described by Fencott et al. (see section 3.5 for further detail) Boundaries may be both physical and as is the case with personal space, perceived mentally and subject to personal interpretation. At both events, there are other people present encroaching upon and sometimes invading our personal space. Much like digital devices in communications intrude in our personal space, acting like tendrils into a form of liminal space or an intermediate area of experiencing (Albright and Simmens, 2014). For audience members who attended the open-air events of *As the World Tipped* and *The Four Fridas*, they were present with each other, they were co-temporal and co-spatial. The aesthetic proximity of others can be described through the theory of aesthetic agency as the pleasure of co-presence of being with others, as an attractor guiding us to be placed in the audience and as reward in itself for being with others engaged in a common activity. At *The Four Fridas* there was a choice of standing in the promenade area or taking a seat for a particular purchase price. The audiences at both events had to make a special effort to attend the live performances and were prepared to be part of an in-group, to have the feeling of actually being there and have a feeling of presence. The illusion in the theatrical context may be enhanced through technological augmentation, but as David Grieg, a scriptwriter, declared in *The Digital Human* podcast about the theatre, the experience takes place inside a space, and that space contains the place of a stage, the space of the audience, and the space in-between, and he suggests that it is

the combination of those three areas that gives the theatre its peculiar power (BBC 2019). The large scale outdoor events also need to create a feeling of the site being special.

Gaming or immersion in a technological environment does not bear scrutiny in terms of reality in so far as we have to suspend disbelief, as the setting of virtual reality is always fabricated and illusory. Likewise, theatrical presence is predicated upon the suspension of disbelief, the naive practice of allowing the theatrical experience to be thought of as reality for that moment in time. However, theatre is a place where the audience needs to provide the suspension of disbelief so that the theatre practice will function correctly. Calleja refers to this state in which the player's mind forgets that it is being 'subjected to entertainment and instead accepts what it perceives as reality' (Calleja 2014: 226 – 229) while Otzen suggests that immersion is in part dependent upon the belief of the fiction (2015: 3). Both these situations, the theatre and a virtual environment, require a mental process known as cognitive dissonance, where one belief conflicts with another, creating discomfort (Tinwell 2014: 173).

For the audience, in the perspective of Calleja's Four Challenges (2014: 230), the transition in *As the World Tipped* is a fairly passive experience, i.e. non-ergodic with little opportunity for participation, interaction, or demonstration of choice. However, it is a potentially dangerous environment; there is industrial equipment, and the performers are executing their choreography in a visually perilous manner. Taking the first of the challenges, the audience is transported into another reality. Transportation is achieved through the proximity of the audience to the presentation space, where all audience members are within ten or twenty meters of the performance space. The illusion is further enhanced by the height of the stage/screen, which gives a subtended angle of up to 45 degrees when viewing from the perspective of the audience.

In terms of the monolithic perspective, audio can enhance the immersive intensity for participants. Audio acts as a perceptual opportunity within performance when using gaming theory as an analysis tool. The context is important; sound may act as a surety, making us feel comfortable in our surroundings. It may act as an attractor to bring something to our direct attention, for example, the start of the performance. It may act as a connector linking scenes together or guiding us to another part of the performance space. Or it may be a reward in its own right as being pleasurable to perceive. In *Breaking the Fourth Wall? User-Generated Sonic Content in Virtual Worlds* Karen Collins comments that sound exists not behind a wall

but penetrates our physical space and in this way, it always acts as a mediator between the virtual and the real (Collins 2014: 353). Sound has a special place in the context of a performance matrix comprising visual effects using light and projection, the performer, the mise-en-scène and audio, especially in a front-on configuration; while all other elements are placed in front of the audience, the sound surrounds the audience. Further to this, there may be technological enhancements, with audio emitted from behind and around the audience. In this front-on configuration, it is only the audio that can cross over from one side of the performance space into the audience space, to sonically immerse the audience. An aspect that is not discussed by Collins is the effect the acoustic performance of the environment makes. In *The Four Fridas* the sonic effect created by the reverberation from surrounding buildings is entirely absent, sound felt as though it was disappearing into the areas beyond the performance arena. Much could have been done to improve the fidelity of the audio by adding further speakers behind and around the entire arena; while this is done to some extent it might be possible that further speakers might have enhanced the experience of the audience. The quality of the projections was good for the vertical screen/stage, however, it is the actual proximity that is a problem, which could have been ameliorated by making the screen area perhaps twice the size, though this may have been impractical from a logistical point of view.

Immersion, according to Otzen (2015: 3) has several aspects: immersion is not only the act of being absorbed or engrossed in the action, but is also the immersion in the belief of the fiction, in performance what is referred to as the suspension of disbelief. Otzen (2015: 5) continues to describe flow as proposed by Csikszentmihalyi, which requires a combination of challenges and skills that create feelings of flow, anxiety or boredom. In the context of *As the World Tipped*, when I was in the audience I was engrossed in the action of the performance. The action was driving the narrative, and the further into the production we went the more chaos is demonstrated; the actors spin, turn and climb athletically. Replacing challenge is the belief in the fiction of the performance and the illusion of danger, and the skill is the skill of the performers to execute their movements to create the visual effects. The interplay between the challenge and the skill either creates anxiety if the challenge is too great and the skills too low or boredom if the challenge is too small and the skills too great. Fencott et al. (2012: 50) describe flow in terms of agency and presence, where people lose themselves and lose track of time in the activity and continue with their definition of agency as the interplay between intention, perceivable consequence, narrative potential, transformation, co-presence and

presence (Fencott et al. 2012: 51). If the performance felt too dangerous then engagement with the narrative would be lost and likewise, if the skills were too great for the challenge it would appear too easy and boredom would be experienced by the audience. A balance between the apparent danger and the skill level of the performers allows for the audience to engage with the experience. Aesthetic proximity, described earlier, is the key to enabling immersion and engagement in the performance. Too far away and it would not be possible to see and feel the effects of the production and have the choice to engage or not.

There were no obvious guides to *As the World Tipped* represented as a character, but the narrator as voice over leads us through important sections. Where there is no narrator there were signpost images or sentences projected onto the performance area and the intention is made clear. The consequence is twofold; firstly, in the consequence of apparent danger of the performance and secondly in the consequence of the outcome of climate change. The narrative potential was found in the building of multiple experiences within the performance process, and quite a few of these are the experience of surprise. My transformation eluded me to begin with until I realised that the narrative was teaching me that my behaviour implicated me in the destruction and chaos being presented. It was my awareness, responsibility and ownership of the ethical problem of climate change that was changing. I not only felt present in this situation but exposed to the reality of my condition, and the condition I infer was realised by those others in the audience who were co-present with me. I felt less immersion with *The Four Fridas*. In *The Four Fridas*, the performers were principally involved in the creation of spectacle, rather than an illusion as was the case in *As the World Tipped*. *The Four Fridas* used sculptural, architectural, mobile set and traditional mise-en-scène, with a combination of many performance techniques including aerial, physical theatre, dance, singing, parade, and illuminated puppetry to create this form of spectacle. Once the performance had started displaying the four stages of Frida's life using the themes of air, earth, water and fire, my engagement was lower due to the lack of fidelity in elements of the production. I found it difficult to see the stage components as I was some distance away. The audio was satisfactory for the musical components, but the voice components lacked clarity. I was excluded from the opportunity to promenade as I was restricted to a seating area. That said, the impressive venue and the full moon rising on a clear night created a desire to be present in this moment.

Lack of proximity

Jason Warren in *Creating Worlds* refers to the misuse of the available space in immersive theatre as the ‘void’. His concept is consistent with the design principles of gaming theory with the Laws of Proximity (Cunningham 2020) and to group contextual information in the direction of anticipation but not within the anticipation zone (Caroux, Le Bigot and Vibert 2011: 103). He advises anticipating how the audience is going to use space and how to encourage the audience to move within this space to forestall such a void. Warren (2017: 21) defines the void as ‘any large area that unintentionally discourages the audience to enter it’. He theorises that in immersive theatre objects and walls behave as though they have gravity, and the audience will move towards bigger objects, encouraging the audience to revert to ingrained behaviour of theatre-going norms being driven by social anxiety¹⁴. To fully appreciate *The Four Fridas*, the audience needs to be in promenade formation, following the action as closely as possible, being within 10 or 20 metres of the action. However, the majority of the audience members were placed on the transverse seating areas east and west of the event, which, while it gave great access to the Voladores, gave very poor visual access to any of the other action.

At the end of the two productions of *As the World Tipped* and *The Four Fridas* I had quite different feelings. *As the World Tipped* creates an exciting experience that felt unique. Gaming theory states that it is the feeling of being there and losing yourself that creates the link between agency and presence (Fencott et al. 2012: p50). I was immersed in their creation and had come to realise how strongly they thought about climate change, and their strength of feeling had been imparted to me. I felt a strong emotional connection to the production and to the values they were avowing, and I experienced change. Gaming theory of aesthetic agency describes this as the feeling of presence, of creating narrative, and of transformation. *The Four Fridas* left me feeling somewhat empty as I had hoped for much more from the production. The venue, the stalls and themed consumables, the set and the company I was with all built anticipation which was not fulfilled. I was ready and committed to the production, but felt confused and let down by what seemed to be a missed opportunity.

¹⁴ His solutions include creating zones with lighting, cloth panels and objects, avoiding small objects which can repel the audience, using large pieces of furniture and carefully selecting the entry point to a space (2017: 29).

4.4 Immersion Through Discovery and Experience

I am using the two productions of *Wings of Desire* and *The Voyage* to examine the phenomenon of immersion through the themes of discovery and experience, using gaming theory of aesthetic agency. *Wings of Desire* shows how discovery, liminality, fidelity and implicit gameplay through roles are used in outdoor events, while *The Voyage*, due to the interaction between performers and audience, demonstrates how audiences may participate, learn skills and social rules, and employ tactile senses. Gaming theory of aesthetic agency describes the opportunities in these performances as being narrative potential where there is pleasure in the build-up of agency into meaningful patterns or even stories, through the process of exercising agency, transformation which is the pleasure of becoming someone or something else, co-presence which is the aesthetic pleasure of being present with other sentient characters and presence which is the sense of being part of, of being in the event to the exclusion of the real world.

Foer identifies discovery as being a function of curiosity in humans when he describes what psychologists refer to as the curiosity gap; a cultivated state of unquenchable curiosity (Foer 2017:138). In digital culture, curiosity is explicitly used in such internet phenomena as click-bait and teasers, and both the productions investigated made much use of teasers within preproduction advertising. Discovering the event creates a sense of exclusivity in the audience to create a sense of specialness in potential audience members for the immersive performances (Gander 2017:75). However, the events were associated with what might be considered specialist performance forms of dance and physical theatre, and as such increased the symbolic value gained by those who, through their cultural capital of knowledge and social networks, can attend (Gander 2017:75).

Presence and flow

The opening moments of both productions would be referred to by Turner as the breach in his theory of social drama, and these moments can trigger a feeling of presence, the precursor to flow. Both *Wings of Desire* and *The Voyage* managed to create a feeling of participation, engagement and role play with the audience. Machon points out that to engage in the experience of immersive theatre the individual and collective audience in situations outside of theatre venues demands risk-taking and investment, alongside sensual and intellectual involvement (Machon 2013: 39). In *Wings of Desire*, the audience were not just watching a

performance, but being watched by angels from rooftops that surrounded the entire performance space in Victoria Square. Acting as attractors of perceptual opportunity, angels on rooftops can be seen in Figure 26, where several angels are illuminated and stand on all buildings all around Victoria Square. The audience at this point was separated and had become *communitas* in the liminal space for both *Wings of Desire* and *The Voyage*. The space was impactful, with the large buildings being used in the performance, the angels on rooftops and the opportunity for agency of the audience to choose sightlines and discover that the angels create a sense of place and presence. In *The Voyage*, the opportunity for discovery and agency in the audience arose when the performers marched through the audience space in close proximity to the audience. The performers acted simultaneously as attractors, gaining our attention and connectors, guiding us from the audience space to the main performance space.



Figure 26: Wings of Desire Angels on Rooftops (Source: www.swiftfilms.co.uk 2012) (Courtesy of Swift Films)

Where agency is characterised by the interplay of intention, perceivable consequence, narrative potential, transformation, co-presence and presence (Fencott et al. 2012: 50 - 51), intention and potential consequence are clear from the unusual and hazardous sites used by the actors as angels. There was also an element of surprise; the positioning of the angels being attractors gaining the attention of the audience, the connector and the reward (Fencott et al. 2012: 93) not

being apparent at this moment. With the narrative potential not clear, I was driven to make meaning out of the situation, though the discovery and experience of the spectacle feels like reward enough. With the audience standing in the centre, they were not only watching but they were also being watched. Here place/space/art as living experience fused communal recreation (Machon 2013: 39). The effect is entirely consistent with the original film *Wings of Desire*, where angels were always watching and listening to the human race. Therefore, the audience in the production of *Wings of Desire* in Victoria Square was transformed to being observed members of the human race and were implicitly part of the production. It made the audience the focus of the performance and not the actors. A similar theatrical device was seen at The Young Vic in London in *Life of Galileo* in May 2017, where the audience were both in the centre of the production and in the round. Being so close to the action in *Life of Galileo*, the audience is implicated in the excommunication of Galileo.

Flow is an extension of presence, and they are therefore related; one can be absorbed in the environment, but additional factors should be in play. Otzen (2015) suggests that there must be an activity for flow to occur and that there are attributes to flow; skills can be learnt, there may be levels, goals and rewards. Otzen continues that there may be a temporal element to flow, where the consciousness of passing time is diminished while cognitive engrossment is increased. Weibel and Wissmath summarise flow, described as immersion into an activity (Weibel and Wissmath 2011). Presence and flow, therefore, both have immersive qualities, but are different variables within the same process. The use of a central area for the audience can be seen in Figure 27 and immediately creates an immersive effect that allows audience members to gaze, to wander and discover without the need to walk, as is required with a promenade form of theatre engrossing the audience and extending presence to flow. Just like the real world, the audience inhabited a 360-degree virtual environment, and were simultaneously both the observers and the observed, while in *The Voyage* the role of the audience is fluid, depending upon the scene.



Figure 27: Wings of Desire Angels on Rooftops and in Victoria Square (Source: www.swiftfilms.co.uk 2012)
(Courtesy of Swift Films)

Audience roles

In *The Voyage*, there were several different roles that the audience had to play making the most of the opportunity from aesthetic agency transformation and the pleasure of becoming someone or something else. At the beginning audience members became members of a family of passengers on the ship who were waiting on the quayside to wave passengers off. So, when passengers came to the boat, they came through the audience, carrying their suitcases, displaying motifs, dance sequences and cameos. The audience had to actively divide to let the passengers through, and more so when the orchestra paraded through to give a musical farewell to the liner. Calleja refers to the separation in this rite of passage as the apartness of ritual (Calleja 2011: 46). By this, he implies separateness from normal community, and boundary within the rite of passage. The audience is present in the performance environment and co-temporal with the performers. The freedom to investigate performers nearby, being able to touch them and interact to an extent, afforded the opportunity to learn social rules, discover the boundaries of interaction and participate with the action. Boundary is an essential aspect of flow. Like working from home, our work bleeds into our private lives and we can barely discern the boundaries between them (Turkle 2013: 280); we need a clear distinction between our

normal space and the gameplay space. The acknowledgement of boundaries, both real, performative or imaginary, becomes key to the capability offered to audience members to experience another way to escape the boundaries of space while preserving the transformative experience of live, immersive or self-directed events (Gander 2017:76). Lonergan states that audience-members' online activities can extend a production both temporally and spatially, pushing performance beyond the boundaries of the stage, and beyond the performances of the action in real-time (Lonergan 2015: 4). In the context of immersive performance, to paraphrase Lonergan, an audience member participates with agreed rules and boundaries that are distinguishable from the norms in the material world (Lonergan 2015: 28).

Figure 22 - Figure 25 show the surprising interaction between performers and audience in *The Voyage* as the marching band, passengers, bubbles and life rafts were placed in the audience space. In *The Voyage*, when the liner apparently sinks, projections indicated the sinking vessel by showing an underwater scene and bubbles rising. The audience then became part of the ocean as dancers in inflated transparent spheres performed in the centre of the audience space. The audience had to part to allow the dancing bubbles to move. Moments later when a lifeboat moved through the audience, rather than being underwater and part of the ocean, the audience members were seen as being the ocean's surface, while survivors were picked up from the shipwreck. The production provides the audience with an opportunity for discovery and reward; the audience perceived action close by and had to make meaning out of the situation. Upon interpreting the situation the audience is rewarded with the realisation that their implicit role has changed which potentially draws them closer to the narrative.

Surprises and connotations

Fencott et al. describe surprises as being implausible but beneficial, or completely plausible but unexpected. They state there are three types of surprise: attractors, connectors and rewards (Fencott et al. 2012: 93). Game theory can be applied in this context when unexpected attractors of the performers in the audience help connect the audience to the narrative, and the audience gains rewards by the chance of contact with performers, depending on their location within the space. The intention of placing performers in the audience space is to create an opportunity for contact, to aid in the process of satisfying those intentions, and in the audience to provide the perceivable consequences of the interaction between the audience and the performers (Fencott et al. 2012: 93). Warren refers to this as anticipating how the audience is

going to interact with the production (2017: 5). Space was made organically by the audience for the marching band, cued by the sound of the instruments. The dancers made some physical contact with audience members, and the audience gave way to the performers. When performers made contact with the audience, experience was created through the challenge of boundary, creating an opportunity for discovery, participation, interaction and the learning of social rules. The contact was early in the performance, and hence taught the audience the rules they needed to learn and the skills they needed to practise for further interactions. The interaction was gentle and, in a way, held the hands of the audience while they adjusted to the surprise. A connotation is a secondary meaning of an experience, or a feeling or emotion associated with an event. Surprises according to Fencott et al. are supposed to deliver a memorable pleasure (2012: 93) and in the case of the marching band, they were an attractor initially drawing the attention of the audience and allowing the audience to form intentions for themselves. Attractors must be associated with rewards (2012: 93) and in this example, the reward was the contact with the performers and the aesthetic pleasure of participating.

The subtle use of aesthetic agency, as described by Fencott et al., can be applied at the point of sinking within *The Voyage*. The interplay of intention, perceivable consequence and narrative potential might be confusing to the audience. It is not clear why the vessel sank at this point, though it is clear that this is the intention through audio, visual effects and the action of the performers. It did not appear to have a reason for occurring in the storyline, apart from a freak accident. However, the narrative potential was to create an opportunity for interaction with performers in a transformed state as bubbles and ghosts, and transform the audience into an interactive medium both co-present with other audience and performers, engaged in an activity, and present with performers. The narrative of *The Voyage* can be better understood by looking into the development of the piece. Interviews with Kevin Finnan, the artistic director of Motionhouse, indicated that the story was inspired by immigration to Birmingham on the *MV Empire Windrush* (*The Voyage*: BBC Midlands Today Coverage - 23 May 2012, 2012). Personal stories were taken from many people; as the website declares, *The Voyage* is all about storytelling and sharing our heritage, and showing how global migration has shaped British culture today (*The Voyage* 2012). The production appears to be set around the turn of the twentieth century and there is a reference to the liner being named *HMS Olympia*. This is not a real ship, but does seem to allude to *RMS Olympic* which served between 1911 and 1930, the flagship of the White Star Line. The sister ships of *RMS Olympic* were *RMS Titanic* which hit

an iceberg and sank in 1912, and *RMS Britannic* which struck a mine in the Mediterranean Sea and sank in 1916 (Tikkanen, 2011). Therefore, the sinking of the ship represents a fictional crisis in the narrative of *The Voyage* and alludes to the dangerous passage undertaken by emigrants.

Aesthetic agency and pleasure

Immersion, presence and flow when applied to live performance can be nuanced, and take a lighter form than the source of the theory in gaming. In immersive gaming, Bittarello suggests that a gamer's active engagement and experience is enhanced when they learn skills and social rules and test their limits and abilities through play (Bittarello 2014: 107). Lonergan qualifies this by saying that rules and boundaries in a game need to be distinguishable from the norms in the material world (Lonergan 2015:28). Warren takes the idea of rules even further in gameplay, to enhance discovery and experience, and describes the theatrical form of 'Game Theatre' as a distinct genre that shares many characteristics with immersive performance such that in Game Theatre, where the rules often are the performance (Warren 2017: 108). This means that in an immersive environment, rules that are either implied or explicit need to be understood. As suggested by Fencott et al., the narrative can be created from a building of experiences within a performance, separate from the full narrative of the production itself. For the audience, the rules involve implicit social etiquette and the experience of interaction with the environment and performers occurs throughout the production. The performance of *The Voyage* I observed was well attended, and I realised at the end that there were many family members of the cast in the audience. Unaware to begin with, I noted that the audience engaged with the performers during the performance recognising the boundaries of the performance and the rules of etiquette implied by interaction. After the performance had finished family waited for the cast to arrive after the performance to welcome and congratulate them. A different set of rules and boundaries occurred at this point as the social etiquette changed to be less formal as the boundaries extended beyond the performance space and time. The experience of the production for the cast and family members extended beyond the formal performance with the adaptation of rules and recognition of changing boundaries.

Pamela Sterling and Mary McAvoy suggest that the participatory aspect of the immersive audience-spectator experience validates principles such as risk, agency, and personal responsibility (Sterling and McAvoy, 2017: 96). While the participation required from the

audience in *Wings of Desire* is less than that of *The Voyage*, and interaction is not significant, the audience members do have to use attractors and connectors to discover the rewards available through aesthetic agency. For example, in *Wings of Desire*, the audience must look up and around to discover the angels on the rooftops, turn around to see one part of the performance and another, whilst in *The Voyage* audience members realise there is action taking place close by them, hence the need for several bubbles, several life rafts and two marching bands, plus multiple streams of passengers making their way through the audience space. Their sense of discovery is vital for the audience to feel part of a *communitas* experiencing the performance together, feeling presence and co-presence and creating meaning through the build up of narrative components. Sterling and McAvoy go further in describing contemporary audience evolution, by describing them as emancipated spectatorship who have evolved through being involved (Sterling and McAvoy, 2017: 96). In both *Wings of Desire* and *The Voyage*, there is a sense of transformation for the audience, changing from one state to another state, and transportation to an alternate reality.

An opportunity to engage the audience, to control the attentional resource, in both *Wings of Desire* and *The Voyage* arises with what Turner refers to as the social drama element of crisis. In gaming, it is the start of the action when a challenger appears and in drama, it might be referred to as the motivation for a scene. The moment when this occurs in *Wings of Desire* is when Daniel falls in love with Marianne. And in *The Voyage*, there are multiple possible moments of crisis; when the passenger boat leaves the dock, when the stowaways climb on board, or when the passengers and crew start falling in love. When a participant has to decide what action to take Breel suggests that previous experience of participatory works impacts upon decision-making processes and any actions taken. This suggests that experience of taking part develops the participant's ability to 'perceive the power relations at play in the work and detect how to make an impact on the performance' (Breel 2017: 220). This ability leads to an awareness of how they experience their agency within the work (2017: 220). The use of various forms of experience to increase involvement on a continuum of attention and intensity at the moment of crisis physically expresses Calleja's theory regarding monolithic perspective on immersion. The response to the moment of crisis is enhanced using intermedial projections. Figure 28 and Figure 29 both show the performance space in *Wings of Desire*, which has projection screens set up behind.



Figure 28: Wings of Desire Stage Area (Source: www.swiftfilms.co.uk 2012) (Courtesy of Swift Films)

The contemporary dance by 2Faced Dance Company in *Wings of Desire*, choreographed by Tamsin Fitzgerald, was visceral and compelling, and embodied ancient religious ritualist dance practices. The dancers were exploring the voices and the thoughts of the angels. The highly rhythmic piece of music composed by Goldie lent a feeling of war and conflict, while images of fire, riot and other reportage video were montaged together and projected on the large cyclorama at the back of the stage. One image of an ambulance appeared to be a reference to an ambulance scene in the original film (Figure 28). The video was in black and white, to reflect the colour-blind vision of the angels. The angels were dressed in similar costumes to the angels in the film: a long dark coat, scarf, black suit and a hoodie. The abstract nature of this dance alluded to the liminal state of the angels in their role between worlds. The lighting gave a visual cue to the audience of other-worldliness and the ‘otherness’ of the angels. The angels were both physically bound by the limits of the stage and figuratively bound by their non-corporeal state, but responded to the moment of crisis. In Figure 28, dance performance can be seen where the narrative was extended using projections, and the dancers could respond to the projections.

The audience through the exercise of agency developed the aesthetic pleasures of narrative potential, co-presence, and transformation in pursuit of presence (Fencott et al. 2012: 92) which were created through opportunities to participate in activities in *Wings of Desire* and *The Voyage*. In *Wings of Desire*, it is Daniel who, because of his love for Marianne, sacrificed his

immortality to be with her. In *The Voyage*, the ship is struck by a storm which sank it and drowned some of the passengers. Attractors and rewards follow in both *Wings of Desire* and *The Voyage*; in *Wings of Desire*, the audience must physically turn their attention from ritualistic dance and acrobatics to Marianne performing aerial work on the façade of the Town Hall. Not only was this impressive technically but was supplemented by Daniel climbing down from the rooftop of the town Hall as a metaphor for him becoming human and mortal. Fencott et al. go further when describing the motivators for immersion, and they link surprise with visual cues and rewards, as described by Warren (2017: 5) and Otzen (2015:5). Taking the example of *Wings Of Desire* above, the attractor might be Marianne performing aerial work, bringing our attention to the façade of the Town Hall and the new focus of action. The connector is Daniel climbing down from the top of the building, we are no longer surprised by the use of the Town Hall but connect Daniel's actions with the actions of Marianne. The reward is the resolution of the relationship between Daniel and Marianne, through the presentation of the video mapping upon the Town Hall architecture. The theoretical structures suggested by Fencott et al. of intention, perceivable consequence, narrative potential, transformation, co-presence and presence can all be applied to this example, and provide a new method of analysing live immersive theatre. The intention of both Daniel and Marianne is clear: they wish to be together but the situation is dangerous. There are potential consequences for both characters, Daniel who undergoes a transformation from angel to mortal human and for Marianne who risks love with an angel. We as the audience are both co-present with other audience members and the actors, and I felt present through engagement and cognitive engrossment in the action of the production.

While passive, I am engrossed cognitively in the action of the performers. The combination of persistent music and the slow movement of Daniel and Marianne was mesmerising to me. I am absorbed by the skill and courage demonstrated by the actors, and the repurposing of the Town Hall façade into a place of transition between the location of the angels and the earth where humans reside has me transported and not questioning the reality of the situation. The moment achieves the aesthetic pleasure of realising narrative potential and the feeling of being there as described by Fencott et al. It is the role of the audience to allow this to happen and to be receptive to the opportunity. In gaming, the reward might be the achieving of goals while in drama it is the resolution of narrative threads. For the audience, it is the engagement in the

operators of flow of being involved in the action (Weibel and Wissmath 2011: 1), the pleasure of taking part, of being told a story and of losing oneself (Fencott et al. 2012: 45).

Leakage

Collins is concerned where leakage occurs within virtual worlds, either game sound leaking into the real world or vice versa, as this disrupts the immersion (2014: 358). As Collins goes on to state, 'If you introduce reality into a virtual world, it's no longer a virtual world: it's just an adjunct to the real world. It ceases to be a place and reverts to being a medium. Immersion is enhanced by closeness to reality but thwarted by isomorphism' (2014: 358) or sameness. Biggin also notes that barriers to immersion occur when a participant experiences trouble, discomfort or dissatisfaction (Biggin 2017: 92) or in the following examples, some level of confusion. Leakage was experienced in *Wings of Desire* in two further places; once with a video projection of a local poet, and a second time with Goldie compering as an MC on stage. Both attempted to fulfil the requirements of flow by associating the *communitas* with the city of Birmingham, and the connotation that it was good to be human and in Birmingham. The logic for the association with Birmingham was because Berlin was used as a location in the film *Wings of Desire*, which takes place in post-war Germany. The second instance of leakage occurred when Goldie took the role of a festival compère engaging with the audience and eliciting a response when he calls out 'Hello Birmingham'. He repeated this call to help teach the audience the change of rules in the performance and gain a greater response and attentional control; the interaction connected the audience to the performance. Goldie continued by describing his roots in Birmingham and related this to the local audience, who have already affirmed their allegiance to Birmingham. However, the change in role of Goldie implied that the real world was leaking into the imaginary world of the performance. There followed a more intimate section by a performance poet.



Figure 29: Wings of Desire PolarBear Poetry Projection (Source: www.swiftfilms.co.uk 2012) (Courtesy of Swift Films)

Figure 29 shows PolarBear the performance poet through the use of projection; while not live, the content had a televisual effect, where the poet PolarBear from Birmingham, recited his work about Birmingham. The use of spoken word, chant and poetry is another form of ancient ritualistic behaviour associated with rites of passage. It was intended to place the performance of *Wings of Desire* within the context of Birmingham City and to create a deeper engagement with the production, drawing on the prior experience of the audience members of the location. Alan Lyddiard, who provided the adaptation and dramaturgy, said of PolarBear that he has a real love affair with the city and it is that which is central to the storytelling of *Wings of Desire*; ‘my city ain’t pretty but it’s home’¹⁵. The use of projected poetry was used to engender a sense of presence, of being there and part of a local city community. The audience was supposed to be transported from watched human beings into members of a citywide group of people. However, the use of the projected poetry and the subject of ‘My City’ inferred a leakage of the real world into the virtual world created for Daniel and Marianne. Leakage is problematic and disrupts the virtual environment of the performance, and may be a structural issue fabricated

¹⁵ Further montage videos show people at play and at work in Birmingham in black and white, an interesting reference to the original film, where it is said that angels are colour blind and can only see in black and white.

by the director's desire to give meaning and purpose to the production, to link to both the site, the narrative and the city.

Collins argues that adding reality to a virtual world robs it of what makes it compelling: 'it takes away that which is different between virtual worlds and the real world and that it is the fact that they are not the real world' (2014: 258). Leakage occurs again when Goldie swapped character from an actor being an angel to himself as an MC and DJ, meaning he had to work much harder to bring the audience with him. In the virtual world of the *Wings of Desire* performance, the audience had understood their role and how they were supposed to have behaved and responded. But when Goldie called for a response from the audience to 'How are you feeling Birmingham?', it took a moment for the audience to change their role from implicit performance participant to a form of the responsive ritualistic festival-like attendee. The change of character might be classed as transformation of Goldie but more closely resembles a perceptual opportunity of shock. That is to say unwanted content in the performance that reminds us we were watching a show that broke my concentration and my sense of immersion.

As the final moments of the productions arrive the audience experience the resolution of the performances and also reintegration into the real world. Auslander (2019) points out that all performances are framed as a mark of time, space, and consciousness, to indicate that a performance is about to begin or that a return to the ordinary is imminent. The mark of time, space and consciousness relate to aesthetic agency in terms of presence, co-presence and the ability to make conscious choices which in turn creates narrative potential. In digital culture, the framing of the end might be adding a name to a high score. Auslander points out that some of these actions are so common that we do not even notice them anymore, such as the dimming of lights at the beginning of a performance or clapping at the end of a performance. The final scene of *Wings of Desire* is the longest, lasting nearly eight minutes, with synthesised music composed by Goldie and diegetic sound effects that synchronise with the play of the video mapping. The building is very much used first of all with fluid effects which seem to make the building disrupt, somehow pillars appear and disappear, then piece by piece the building is torn away as though ripped by a vast hurricane; torn by forces beyond its control the columns disappear, then the foundations, with explosive sounds in the music. Once the building is destroyed, there seems to be a re-birth; Daniel is highlighted in the corner with the spotlights, while further graphics and music play on the building façade. A timer set to music gives an effect of ticking, and development; the Town Hall façade appears rebuilt and reconstructed as

though reborn. The architecture is used for a more fluid body-like effect with blood and veins moving across the building. Damiel and Marianne were seen in the centre of the building together in the final moments, to the flourish of music and an explosion of digital effects.

In these ending moments of the production, there was greater aural and visual stimulus acting as perceptual opportunities of attractors and connectors. The projections are digital, and the scale of the video mapping and the aesthetic effects are immersive; the building is born and then destroyed. Here is a perceptual opportunity of reward for remaining in the audience, a site-specific, one-off presentation which retells the previous narrative in a digital mode. Experience of the novel video mapping within the performance provides an opportunity for the audience to discover new techniques in intermedial performance. There is another chance to understand the abstract metaphor of the video mapping, and to re-engage in a flow state where the video mapping restates the link between the narrative of *Wings of Desire* and Birmingham. The video is an illusion, but the architecture is not, and this implies that the building, and by association the audience, are being transformed; where the physical boundaries of the architecture no longer apply. The final framing of *Wings of Desire* is indicated with applause as the performers come onto the stage area to take a bow.



Figure 30: The final scene of *The Voyage* 2012 © Katja Ogrin (Courtesy of Katja Ogrin)

After the final scene of *The Voyage* there was an opportunity for a further shared experience. Biggin comments upon the idea of shared moments and memories of performance. The sense of discovery, Biggin notes, as one progresses through an immersive production is part of the heightened pleasure, however, the manner in which companions share memories after a performance extends the experience beyond the ‘confines of in-the-moment and beyond the individual’ (Biggin 2017: 105). The whole cast was present and silent on the deck of the ship, as seen in Figure 30. They held suitcases that had become translucent and were lit from the inside. They appeared spectral and may have represented the lost souls of the drowned passengers; simultaneously they appeared as a symbol of hope. The music stopped and there was a loud, maintained swell of applause. The sheer number of performers at this point created a sense of presence, and the visual effect a signifier of resolution. As I left, cast members were greeted, they were embraced and congratulated by family members and friends. I observed that not only had the performance shown a ritual of reintegration using the symbols of hope, but also the cast members were reintegrated into their own families. The parallel of the production and the real world were displayed in that one moment. The cast and family and friends had a shared moment that extended the narrative potential of the performance beyond the formal boundaries of the production

4.5 Chapter Summary

In this chapter, I argued that it was aesthetic agency that drove the immersive effect of live performance and supported new opportunities in analysing live theatre through the ideas articulated by Fencott et al. (2012). As Calleja (2014: 222) suggested, immersion as absorption and immersion as transportation is made up of a number of phenomena which are themselves on a continuum of intensity. A space may have immersive qualities, but gaming theory has illuminated the issue that an immersive feeling is created through spatial presence and flow (Weibel and Wissmath 2011). It is also the analysis of flow in terms of patterns of activity (Fencott. et al. 2012: 26) within the narrative of the production that reveals new insights into immersive theatre. While Giannachi and Kaye conclude that presence is predicated upon immediacy, authenticity, originality and the relationship between performer and witness (2017: 1), gaming theory reveals that consideration of the structures of flow, where engagement with activities is either ergodic or non-ergodic, leads to an increased attentional intensity in the audience and displacement of notions of time and hence immersion.

This chapter focused on the themes of illusion, proximity, discovery and experience. Through exploration of the terms and their meaning within the context of live theatre, insights were revealed that would assist with the development of the live theatre productions. The four large scale outdoor productions selected demonstrated several features shaped from digital culture, and also exhibited leakage from the real world into the performance. Leakage, as a shock in terms of perceptual opportunities disrupts the immersive process. Two examples of leakage were observed in *Wings of Desire* which allowed the real world to leak into the performance. The attributes I found in the selected productions were a willingness to submit to the illusion of immersive theatre, the role of proximity to points of engagement within the performance, the sense of discovery and agency in interaction, and participation in activities to create flow and experience. It was with aesthetic agency, where the interplay of intention, perceivable consequence, narrative potential, transformation, co-presence and presence linked with the theories of Machon, Giannachi, Kaye, Warren, Grimshaw et al. and Turkle, that new knowledge may enhance approaches to live theatre.

While Lonergan (2015: 33) suggests that we may accept that the two distinctive features of the theatrical experience are liveness and ephemerality, it is capturing the rare and coveted attention (Turtle 2013:266) of the audience through the feelings of presence and flow that

creates embodied memory of the event never to be repeated in any form (Machon 2017: 43). Immersion as absorption and immersion as transportation is made up of a number of phenomena. But without agency the audience will simply be placed into a space without autonomy. Gaming theory illuminates the issue that an immersive feeling is created through spatial presence, flow and agency. Breel states that 'The decision-making process is aesthetically central to the experience of participation as it creates the contributions that come to form the particular performance' (Breel 2017: 197). The closer linking of intention to narrative potential, and the use of surprise as cues to aid meaning-making in the audience, will help produce a more consistent and engaging live performance. Therefore, it is aesthetic agency (Fencott et al. 2012: 50 - 51) and agency as choice, the option to feel in control (Fencott et al. 2012: 48), which allow us to be lost in the illusion of live theatre and to have the freedom to discover meaning.

5. Identity and the Digital Made Real

5.1 Introduction

This chapter demonstrates the utility of aesthetic agency as an analytical tool to examine the effect of digital culture upon characters in terms of play with identity within mainstream theatre, where the direct interpretation of digital culture is shown through plays that themselves make aesthetic use of digital culture. The elements of aesthetic agency may be explored through character interaction within the plays; intention, perceivable consequence, narrative potential, transformation and co-presence all act upon the individuals and inform the overall performance. Lonergan (2016) notes that the analogy between online performance in digital culture and actors in theatre may be useful and is used in this chapter when discussing play with identity in digital culture and the transformative nature and the feeling of presence and co-presence in social media. This chapter reflects the nature of play with identity through the medium of what Dixon refers to as traditional theatre (2007) and uses the characters within the plays as the subject of analysis. Carlson specifies that performance has a liminoid nature (2018: 253), this nature will be employed as a structure to examine the nature of identity through the lens of aesthetic agency described by Fencott et al. in gaming theory. This chapter compares two West End plays, *The Nether* and *Ugly Lies the Bone*, to examine identity in the context of digital culture and how that informs current practice in live theatre. In Section 5.3 and Section 5.4 the plays are discussed and compared using the past tense to indicate my personal observations and allows for the unfolding of the analysis of the plays through the structure of aesthetic agency.

This thesis argues that implicit role-play and multiple modes of interaction and participation with the environment and performance can impact the identity and role of an individual. It is aesthetic agency from gaming theory that facilitates the fluidity of the identity of an individual. Aesthetic agency helps present a new analysis of real and virtual identity in the context of live theatre where identities created in a technologically liminal space, through analysis, can offer new paradigms for performance in the live space. Field research illustrates the complexity of this area of identity, that the theatrical content can be toxic, the subject taboo (Halls 2017), and touches on issues of mental health. Performance theory in virtual spaces of Broadhurst (2006), Machon (2013), Harrison (2013), Bittarello (2014), Giannachi (2004), Auslander (2014), Riva and Waterworth (2014), Grimshaw, Charlton and Jagger (2011), Warren (2017) and Lonergan

(2015) is employed to expose the connections between digital culture and live performance theory. While themes of liminality, memory and agency are explored to demonstrate that our self-identity is on a spectrum between our virtual identity and our real identity, where both are real, and who we are is a sum of our memories of experiences.

The Nether is a play put on in London's West End at the Duke of York's Theatre in 2015 and previously premiered in California in 2013. It portrays the use of a virtual reality environment where there are no consequences to any actions. The play moves between a dystopian real world and a utopian virtual world. Written by Jennifer Haley, directed by Jeremy Herrin, with set design by Es Devlin and video graphics by Luke Halls, the play moved from the Royal Court Theatre where it was initially presented in its current form. *Ugly Lies the Bone* is a play that was presented at the National Theatre in London in the Lyttelton Theatre in 2017. The play was directed by Indhu Rubasingham, the set designer was Es Devlin and the video designer was Luke Halls. The play concerns the journey of an injured returning army veteran who experiments with a pioneering virtual reality therapy, with which a new virtual world is built where she can escape her pain. There, she begins to restore her relationships, her life and, slowly, herself (*Ugly Lies the Bone* | National Theatre 2017). Both plays engage with challenging subject matter and are both based in reality; virtual fetish sites may be found online and the VR therapy is real called 'Cool!' developed by Deep Stream Technology and is found to have analgesic properties for burn victims.

It is important to note that the set designer and the video designer for both *The Nether* and *Ugly Lies the Bone* were the same two people, Es Devlin and Luke Halls. This was not by chance as the two worked together regularly, and some of their recent collaborations include *Don Giovanni* for the Royal Opera House (2014), *The Lehman Trilogy* (2018), *Girls and Boys* (2018) and *Carmen* (2017). They represent two creatives at the top of their game and are like-minded when it comes to design and ideas of virtualisation. This might infer a limitation of choice in production styles and denies the opportunity of input of differing creatives. But, as argued previously, the commonality provides the possibility for comparative analysis of similar productions, while the plays remain very different, and afford examination of the fluidity of identity of the main characters.

In a digital context, our memories may be made permanent and potentially everlasting. Lonergan extends this argument to social media when discussing the construction of the online

persona as an act of creativity and as an act of self-expression, being a revelation of something authentic about the real person. Lonergan claims that the value of identities can be defined in terms of how many connections have been gathered; an example he cites is where a person was dissatisfied to have had only 300 followers under his own name, but took pride in the 20,000 people who followed him under his false identities (2015: 2 - 4). Value is determined not simply by the quality of what we post or by who we really are. Instead, it is grounded in the reach and impact of our posts and by the connections that we have forged with others.

Turkle (2013) explored the concept that identity within a continuum of the virtual environment and the real world is validated by the relationships in the virtual and the real world. In the model of identity, the two sets of relationships sit on the horizontal line bisecting the quadrants. The model locates these relationships both in the real world and within a virtual environment. There may be uniquely virtual relationships, uniquely real relationships, and some where the relationship exists in both the real world and the virtual environment. While the attraction of virtual connection is to control contact with relationships, the corollary of virtual contact is attention. Turkle highlights that 'Longed for here is the pleasure of full attention, coveted and rare. These teenagers grew up with parents who talked on their cell phones and scrolled through messages as they walked to the playground. Parents texted with one hand as they pushed swings with the other' (Turkle 2013: 266). The commodity which is least available but most desired is attention, and Turkle makes clear statements on this in the context of digital culture. She states that in virtual worlds and computer games, people are flattened into personae. We as individuals wish to receive affirmation when using digital technology. Turkle gives further examples on social networks, where people are reduced to their profiles, people often talk to each other on the move with little disposable time, and communicate in a new language of abbreviation in which letters stand for words and emoticons, also known as emojis, for feelings. She summarises that digital connectivity is not so good for opening a dialogue about the complexity of feelings (Turkle 2013: 18).

The Pre-Liminal, Liminal and Post-Liminal Phases

As discussed previously in section 2.3, van Gennep describes liminality in three stages, pre-liminal, liminal and post-liminal, and ascribes these states to ritual practice. Szokolczai further refines the liminal to be temporal as well as spatial, as in the 'twilight in spring' (Szokolczai 2009: 73) while Longavesne (2001) additionally describes virtual space as being potentially

micro or macro space, and historical, present or future time. In the structure of van Gennep the pre-liminal stage involves a metaphorical death, as the subject is required to leave something behind by breaking with previous practices and routines. In a digital context, we have to do this all the time; we stop engaging with our physical world and start engaging with technology. The devices and software we use are located in the same physical world in which we exist, but our attention is given over to technology. It is, therefore, the loss of attention to the rest of the physical world and a reduction in our awareness and interest that manifests the metaphorical death for the pre-liminal stage.

Szakolczai elaborates upon van Gennep's three-phase structure and states that in the liminal stage, rites of passage must follow a strictly prescribed sequence, where everybody knows what to do and how, and that it is performed under the authority of a master of ceremonies (Szakolczai 2009: 148). The identity of the neophyte undergoes considerable change during the liminal phase of the rite of passage. Szakolczai emphasises this concept by suggesting that passing through the limen marks a boundary between the pre-liminal and the liminal, and the term liminality was proposed to characterise this passage (Szakolczai 2009: 141). Rina Arya in *Exploring Liminality from an Anthropological Perspective* notes that the transition from the real to the digital requires a shift of consciousness that can be theorised with recourse to the concept of liminality (Arya 2012: 159). Likewise, the change from the digital back to real life requires a similar change in consciousness. Arya continues that in the liminal stage the individual will merge with the community, devoid of the markers of differentiation. This change occurs during digital interactivity and makes it even more difficult to transition to the post-liminal (Arya 2012: 159).

5.2 The Productions: *The Nether* and *Ugly Lies the Bone*

The Nether

The 'Nether' in the eponymous play, is comparable to a World Wide Web in a near dystopian future within which a master programmer has created an environment called the Hideaway which provides total sensory immersion. The Nether is a digital platform, equivalent to the virtual environment in the model of identity, for education, entertainment and business, while the Hideaway is a commercial venture within the Nether; but the Nether is under strict governmental control. Just log in to the Hideaway, choose an identity and indulge your every whim. When a young detective uncovers the disturbing brand of entertainment experienced at

the Hideaway, she triggers a dark battle between technology and human desire. *The Nether* is both crime drama and sci-fi thriller that explores the consequences of living out our secret dreams without consequence. When choosing an identity in the Nether it is equivalent to creating a profile in the model of identity. Choosing an identity happens on the threshold of the virtual environment, it is at once the creation of a new identity and the dematerialisation of the old identity. Creating a profile, as indicated in the model of identity, is usually a one-way transaction, though there is the opportunity for automated messages from the virtual environment to prompt the individual to take some action.

There are sixteen scenes in *The Nether* which move between the interrogation room in the real world and the Hideaway in the Nether. The stage is a set with no curtain, a grey floor and a continuous grey wall towards the front of the stage. The impression given is of performing 'in front of the cloth'. It is stark, there is no audio, and there is nothing to give any indication of what is to come. A table and two chairs are present on the stage. This is the real world represented, it is not imaginary or simulated, though it is augmented by technological surveillance. As the play starts Sims, the master programmer, is being interrogated by Morris, the detective. This interaction at this point in the play represents the real-world interactions, where we only believe that Morris and Sims know each other in the real-world equivalent to the real world, and real-world relationships in the model of identity. Their communications are direct and one to one. They sit on the chairs, Morris on the left, Sims on the right as we look at the stage. The table lights up and appears to have sophisticated computer graphics showing multiple modes of information, where many images and graphics can overlay each other. The graphics on the table are projected onto the wall behind the actors, to give the audience a view of the sophisticated visuals. The graphics are initially exciting and add new information to the narrative, as can be seen on the table and the background wall in Figure 31. The combination of the report and video surveillance implies others are involved in the interrogation process, that control is being enforced and even though no law is broken, Sims cannot leave.



Figure 31: Morris and Sims in interrogation (*The Nether* 2015) © Johan Persson (Courtesy of Johan Persson)

Morris, as seen in Figure 31, wants to get access to the servers which control the Hideaway. Next, Morris interviews Doyle, who has something to do with the Hideaway, but Doyle's role is uncertain at this moment. Access to the Nether and the Hideaway is made through hand contact with the table, the table is a representation of the threshold to the Nether, it acts as a digital portal between the real world and the virtual environment as described in the model of identity. After further interviews with Morris, we are introduced to the Hideaway in the Nether for the first time.



Figure 32: Iris and Woodnut in the Hideaway © Johan Persson (Courtesy of Johan Persson)

The Hideaway gives the illusion of being a very real environment, hyper-real compared to the actual real world in that all sensation is heightened, the greyness of the real world has gone, and visual, aural, gustatory and tactile senses are all enhanced. It is within the Hideaway that we find Papa playing with Iris, and a new guest Woodnut is introduced. In the play Morris the female detective becomes Woodnut the male client, Doyle the old male teacher becomes Iris a little girl, and Sims the master programmer becomes Papa.



Figure 33: Sims and Iris in the Hideaway © Johan Persson (Courtesy of Johan Persson)



Figure 34: Doyle and Morris in the interrogation room © Johan Persson (Courtesy of Johan Persson)

The play then cuts back to the interrogation of Doyle by Morris, where Morris exposes Doyle's dream of crossing over permanently into the Hideaway, leaving his corporeal form under life support, which is known as becoming a 'shade' (Hayley 2014: 25). The shade is a dark representation of the interaction between the real world identity and the virtual identity, where the real-world body becomes sacrificed to the virtual and eventually dies. The term shade implies the physical appearance of the body, that the body is only a half presence of the full person, and that the consciousness of the person exists in the virtual world. As the play continues, Woodnut becomes more and more involved in the Hideaway, and finally experiences the extreme nature of the fulfilment of any desire one might have within the Hideaway; that of child molestation and murder, both without consequence. Doyle (2014: 25) describes this engagement and subsequent resurrection of the child as a fleeting sensation, and that it is the relationships that matter.

The act of engagement is a turning point for the play, and the point at which conferred identities become clear; Doyle, the old science teacher, is Iris the young girl within the Hideaway, and Woodnut is Morris the detective, while Papa who runs the Hideaway is Sims, the master programmer. In the end, Morris, the detective manages to break Sims with evidence of his real-life persona and extract the location of the servers. Sims justifies the creation of the Hideaway as his way of protecting children from his proclivities and states that it is better to act them out in a virtual environment rather than act them out in real life. At the end of the play, despite the Hideaway being a virtual environment, everyone in the real world has been changed by the experience.

Ugly Lies the Bone

Ugly Lies the Bone tells the story of an army veteran, Jess, who is badly scarred by a roadside bomb, and returns to her home town to continue her journey to recovery. There she undergoes a new treatment to help manage her pain. The play was 'inspired by a real video-game therapy called 'Cool!' developed by Deep Stream Technology, currently being used to treat burn survivor veterans, living in constant pain' (Ferrentino 2017: 5). The therapy is an immersive virtual reality experience where the avatars of patients wander through a snowy landscape, listen to music, and even have snowball fights with penguins. The patients' senses are overwhelmed by external stimuli so that the brain avoids thinking about physical pain.

Everything hurts in Jess:

...skin, muscles, heart, bones. She limps, uses a walker, and at least thirty percent of her skin is covered in third-degree burns and recovering skin grafts. Additionally, as is typical of people who have PTSD, hyper-vigilance leads to scanning each room when you enter and keeping an eye open to identify potential threats.

(Ferrentino 2017: 5).

Ugly Lies the Bone is a play that comprises nineteen scenes with four locations: the living room at home, the convenience store, the VR therapy suite and the roof of a house. However, it is not entirely accurate to describe the transition between locations as scenes, as the play is both delivered and written as one continuous piece without breaks. This is deliberate and is reinforced by the use of digital effects to enhance the feeling of being within the mind of Jess. *Ugly Lies the Bone* made use of projected digital video as an integrated part of the narrative, directed by Indhu Rubasingham and again with set design by Es Devlin, with digital video design by Luke Halls (*The Nether*), a sympathetic use of technology was made to enhance the production and, as with all well-produced intermedial performance adds to the narrative and does not distract. When Jess is wearing the VR headset and working through her ‘challenges’ the video mapping on the set appears to move with her, giving the impression that we see what Jess sees.



Figure 35: Jess and Stevie (*Ugly Lies the Bone*) National Theatre 2017 © Mark Douet (Courtesy of Mark Douet)

Figure 35 shows a complex transition from Jess's therapeutic VR challenge to cityscape projection. In the VR therapy sessions, the projections on stage move synchronously as Jess moves her head. A series of eight projectors is automatically calibrated to present a seamless image on the curved set. Tables and chairs appear out of the curved set, transitions between scenes are continuous, and one scene can call into another to end action. The set is sculptured as a cityscape and the video graphics enhance the illusion of a city at night when viewed from a high altitude. The cityscape has the illusion of traffic moving on roads, which then change with the mood or scene to be more like a computer circuit board. So many elements in the play point to the many different opportunities Jess has to change the way she feels about her injuries, not only the action of the play but also the scenography, which has a high-altitude view of the cityscape as though viewed from the shuttle during take-off.

5.3 Liminality and the Representation of Identity

Dew Harrison in *Digital Media and Technologies for Virtual Artistic Spaces* (2013) states that the liminal applies to the digital in that it refers to the crossing of the physical space into the non-space of the digital. Harrison links the liminal state in the rites of passage with that of digital culture (Harrison 2013: 161) and continues that we are thrust into a liminal space of interactive possibilities (2013: 164). The two plays offer many opportunities to investigate the concept of liminality and identity in live theatre in the context of digital culture. Digital culture presents itself to users through digital devices and represents its immaterial space through programmatic interfaces where the user can interact. The interaction may take different forms depending on the interface: a gaming interface will use handheld movement and action controllers, social media will use keyboards, videos will use player controls onscreen.

Liminality as space and time

As outlined in Chapter 2, Section 2.3, a liminal space is a time between what was and the next, an intermediate state, phase or condition (Friedman Miller, 2019). In the model of identity, it is represented by the two virtual environment quadrants. It is often defined as immaterial, whereas the origin of the word *liminal* derives from the Latin meaning threshold, any point or place of entering or beginning

This definition is repeated to reinforce the contradictory nature of liminality being both time-related and place-related. The common factor is transformation as described in aesthetic agency from gaming theory, of the person entering the place of change. As Susan Beaumont states, citing Richard Rohr ‘This is the sacred space where the old world can fall apart, and a bigger world is revealed. If we don’t encounter liminal space in our lives, we start idealising normalcy.’ (Rohr in Beaumont 2019: 4). It is the difference between remaining in one state without question which validates and normalises that state and conceptualising alternative states.

The Nether used a set that represents two spaces; the dystopian real world and the utopian yet dysfunctional virtual environment of the Hideaway. Figure 36 shows the interpretation of the real world in *The Nether*, which is drab and lacks form. However, there was technological augmentation to this place in reality, which implied a wider space outside the area revealed in the play. The intention, from aesthetic agency theory, was clearly presented in the characters, Morris intended to dominate and control while Sims and Doyle wished to be elsewhere. The perceivable consequences of the circumstance were made very clear in the interview scenes; Morris would achieve her goals while Sims and Doyle would be relieved of their privileges. The three characters revealed to us are dressed to indicated their status within the real world. Morris, the detective, is dressed in black and exudes power and control; in the same way the grey interview room exuded power and control; Morris was younger and ambitious, her tone was thrusting and demanding. Doyle, an older man, was dressed in tired-looking baggy clothes with a bow tie and patches on his elbows. Sims, a middle-aged man, was much more smartly dressed in business casual clothing with an open-neck shirt. For all three characters their appearance in the present real-world and that of the interview room of the play was challenged by the intervention of the state, signified by the detective Morris. The new norm was the control of the state over the three characters. The perceptual opportunities, derived from aesthetic agency, are deliberately limited within the interview scenes. The act of logging in through the hand recognition device was the only obvious connector, linking the interview room to the virtual environment of the Nether. At this point, there were no particular attractors, surprises or rewards.

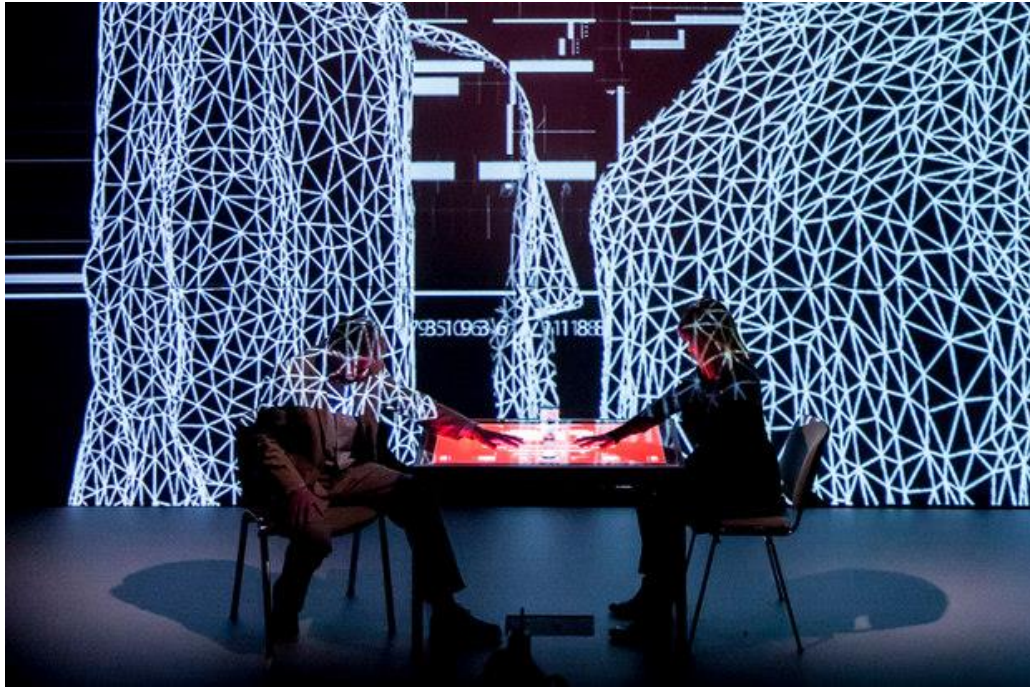


Figure 36: Doyle and Sims in interrogation logging into the Nether (*The Nether* 2015) © Johan Persson (Courtesy of Johan Persson)

In *The Nether* there was a clear distinction between the ‘from’ and ‘to’ of the liminal space. It was different in *Ugly Lies the Bone*, where there was only one space that was presented—a bowl-shaped arena wherein multiple possibilities were explored. There was no discrete ‘from’ and ‘to’ of the liminal space; it was one whole used in its entirety throughout the play, with specific highlights emphasised through lighting and video graphics. The set provided multiple perceptual opportunities for both the audience and the fictional characters. The basic set was of an unusual and interesting design, and when enhanced with projections became rewarding in its own right for the audience. The intention of the set became clear as the narrative unfolded, building meaningful patterns through the agency exercised by the characters. For the audience the narrative potential was broader as the narrative progressed in many ways and as audience we were able to explore the many narrative possibilities of the set design yet to be exploited in the play. A micro and macro argument can be made for the design used in *Ugly Lies the Bone*; as micro, we could be looking inside the head of Jess, and all the places where confrontations occur within her mind. In the mind of Jess, the encounters in the real world are coloured by her injury, and she sees them through a fog of pain. The only real thing in her life was her pain, and everything else was a semblance of the real and symbolic nature of her difficulties. Conversely, the macro argument is that the designers used the bowl-shaped space to provide a literal depiction of the setting of the play. For example, the rendering of the city as though

through a fish-eye lens seen from space, the traffic travelling around a map of the city, and then the immersive virtual space created in VR.



Figure 37: Jess and Stevie, The Garage Store © Mark Douet (Courtesy of Mark Douet)

Another example is the garage store shown in Figure 37, which was contextualised by the streets within which it existed. The garage store set that appeared from the side of the set has not been visible to the audience before then. This operated as a perceptual opportunity; at first as an attractor, gaining our attention, then as a connector leading us into the garage store narrative. The narrative potential builds with the appearance of the new set and we saw a physical transformation of the stage. The transformation on the stage may be described as a metaphor where Jess may be able to transform her relationships with others and as a metaphor for the transformation Jess may undergo within her therapy.

The concept of transformation from aesthetic agency, in the digital environment, shows strength in its capacity to affect the fluid nature of identity and its ability to stimulate the visual and aural senses. It is the transformation to something other which allows us to explore our own nature at a distance which is a feature common to both the digital and the live. The digital is by its nature a medium of duplication, one which can be easily reproduced and remediated; in that way it has an existence which is potentially infinite and unforgetting. What it lacks

corporeally, it makes up for in repeatability, and for those who did not choose to be remediated it can be an unforgiving experience. The live environment is co-present, co-temporal and transient, resistive to duplication. It survives in memory only, which is by its nature forgetful and perhaps more forgiving.



Figure 38: Iris and Woodnut in the Hideaway (*The Nether* 2015) © Johan Persson (Courtesy of Johan Persson)

The first time the audience saw the Hideaway it is in a cutaway box above the heads of Sims and Morris at their table. We saw behind the flat panels as though we were looking into a computer monitor, as seen in Figure 38. This was the representation of the virtual world in the Nether and in particular the Hideaway. It appeared as a computer monitor, a play in a play or another world within the real world¹⁶. We were told that this environment has been created by Sims the master programmer; Sims had a special skill that no one else possesses. This was the virtual environment as described in the model of identity: once inside, individuals inhabited their virtual personae or avatars and engaged in interaction and created relationships with other virtual personae. In this artificial liminal space Sims acted as a shaman. Doyle was an acolyte assisting Morris, the neophyte, who was new to the environment. The new set provides

¹⁶ Es Devlin and Luke Halls are asked how technology is affecting design for the stage. Devlin responds initially by talking about the etymology of the word technology, which is a useful thing to do; it comes from the Greek which means talking or discussing about an art or skill, however it has come to mean how skills or mechanisms are implemented.

Halls continues that the technology he has used is not that new, but what they have become is small enough and cheap enough to be used in the theatre, for example the real time cameras on the table which allow you to focus on particular aspects of the interviewee's face. Halls has also used a number of 3D scanners to create the graphics and images he requires for his video production, initially using an Xbox Kinect.

perceptual opportunities for the audience and built new narrative potential for the characters. Morris looked around in wonder and described how sensate the environment was. The scene was full of attractors for Morris, the view from the window, the furniture, the smells and the tactile nature of the environment. Morris was experiencing the aesthetic pleasure of presence. The experiences built towards possible intention and narrative potential when he meets Iris. Iris connected Morris back to the narrative and Morris must then choose how to proceed. Even within a virtual environment there is a hierarchy of power, where no individual is truly equal though the model of identity might suggest as much. Philip Fisher, writing a review for the British Theatre Guide, has some carefully chosen observations; he describes how the drama opens sometime in a dystopian future with the interrogation of Stanley Townsend's Mr Sims, and says that the name is carefully chosen. By this he means that Sims is a creator of simulants (Fisher, 2014).

Devlin, with her design for the two environments, the interrogation room and the Hideaway, made a tactical display of the Hideaway as this grew from a small box-like elevated space and then enlarges to fill the whole stage, which engaged the audience over the course of the play and acted as a metaphor for the growing knowledge of Morris. At the same time, the transition effects started off very complex and synchronised with the actors, and then became less complex and less synchronised as the play continues and more of the Hideaway was revealed to the audience¹⁷. As the first view of the Hideaway was revealed, we saw a very brilliant space in the form of a cube with reflective walls, ceiling and floor. The mirror walls, ceiling and floor reflected light outwards and made all objects within the set highly illuminated. The actual set was a representation of a Victorian room with a fireplace, a window, a bed and a table on which a decanter sat. My first impression was one of curiosity as to why the Hideaway is presented as a box-like cube and somewhat elevated over the stage. It became clear as the play continues that this is intended as not only a metaphor but a pacing device. The metaphor was of the secretive nature of the Hideaway, peering into this other world as though looking

¹⁷ Devlin in interview commented on two other productions of *The Nether*; one concurrently running in Broadway in New York, the other a previous production in Los Angeles. In the Los Angeles production the set involved a rotating stage where the Hideaway was a physical manifestation of a Victorian house, and the interview room rotated round to be on the other side of the rotating stage, whereas in the New York production the transition was achieved by a simple sliding of what appears to be an iron door. Neither of the other two productions used any projections or video design, and I think this is a reflection of the openness in which the play was written. Devlin herself comments that Haley, the author, has a background in gameplay and coding, and perhaps didn't envisage any particular method of presenting the two spaces, as has been noted before she came to find that the realisation of these two spaces was quite problematic for the directors, producers and designers.

through a keyhole. If we were to see more of this world, we must ourselves, as audience and as characters within the play, commit further to that world. It was a liminal space, one where a guide in the form of Papa controls the rituals undertaken within the environment and the neophyte, Woodnut, will have to undertake certain tasks. Iris was a willing participant, though not as high status as Papa; she was one of the inhabitants of the liminal space rather than being a visitor.

Design and liminality

In terms of aesthetic agency and perceptual opportunities the set comprised surprises that were made up of attractors, connectors and rewards. The common approach with many of the set designs from Es Devlin was to provide shaped surfaces with a neutral colour, so that projections would play off each facet. Luke Halls, in turn, takes a three-dimensional laser image of the set when completed so that he could build the video design virtually in his development software. Video mapping was used to render the video design in absolute perspective to the shapes in the set (*Ugly Lies The Bone* | Designing a Projected Landscape, 2017). The set design and the video design worked together to provide the play with content that stimulated intentions through the use of attractors. For example, when viewing the VR snow scene or when on the rooftop looking at the streets below mapped on the cityscape. The intelligent approach taken by both Devlin and Halls was to carry the narrative forward with scenography and with video design, but not to overwhelm the production with too much visible technology. In an interview, while preparing for the premiere of *Ugly Lies The Bone*, Devlin commented that the set design showed both the global and local, that there was a correlation between the small-scale store shelves for example and the large-scale map of Titusville. Devlin said she was brought in to match the epic scale of the project. The set was laser cut and built over months and had to exactly match the digital model Luke Halls had built. Luke Halls added that the video design was very good at explaining what Jess saw in virtual reality. He added that part of the project was to build an ice world that felt very different from her world in Florida (*Ugly Lies the Bone* | Designing a Projected Landscape, 2017).

The set design becomes a vehicle for the journey Jess undertook as she transformed, as she became someone or something else while under therapy. Jess's fluidity of identity was complicated, and the use of metaphors for her journey throughout the play added to the richness of her character. Jess was shown to be a character with many facets, transforming many times.

She was originally a homegirl from a particular town with home town friends, memories and experiences. We heard about these in scenes of reminiscence; drinking, partying, sitting on the roof to watch the shuttle. We then heard of her time in the forces where she had a unit she worked with, people she trusted with her life and who made her stronger, but no personal interactions. She was toughened by the experience; ‘hit me, hit me, I can take it’ she says (Ferrentino 2014: 67). She was happy to fight and tackle conflict. There was one significant exception to her interactions in Afghanistan; she showed her real self to local Afghans by taking off her helmet. ‘When I’d take off my helmet and they saw I was like them [...] they’d look in my eyes, ask to touch my hair.’ (2014: 72). She is transformed mentally and physically by her time in the forces. Moreover, on her return, she had difficulty adjusting to civilian life again. Her ability to fight and tackle conflict was context-specific and relevant to her time in Afghanistan, but she had to adapt her talents to her new civilian life. At this point, she did not know what it was she was fighting and how to tackle the conflict of interpersonal relationships. Ben Logan of *The Guardian* said the play was stronger when fathoming the complexities of the human heart (Logan, 2017). It was Jess’s real-world identity that was most important, and her real-world relationships that would help her cope with change.



Figure 39: Jess in her virtual environment © Mark Douet (Courtesy of Mark Douet)

In the virtual environment Jess did not appear to assume a different persona; her avatar appeared to respond according to settings in her profile. We did not see a new image of Jess’s face or body in the virtual environment, and there was no attempt to do so (Figure 39). There

was no pretence about her physical appearance. Instead, in the virtual environment, Jess's senses were overloaded with stimuli to help her cope with and control her pain. This control took place in the virtual space of Jess's mind. In transitioning to the liminal space of virtual reality, while Jess did not change identity specifically, she did lose control of her ability to pay attention. As Grimshaw, Charlton and Jagger comment, attention is central to cognition, and in this environment which was novel to Jess, she had not learnt the rules to manage the environment (Grimshaw, Charlton and Jagger 2011). The overload of audio and visual attractors and connectors designed to help her achieve her goals overwhelmed her senses and provided an opportunity for intention, perceivable consequence and most importantly transformation.

Broadhurst, when discussing digitally enhanced theatre suggests that as a result of these technological advancements, new liminal spaces exist where there is potential for diverse creativity and experimentation. She continues that these spaces are located on the 'threshold' of the physical and virtual, and as a result tension exist (Broadhurst 2006: 141). In *The Nether* the tension is brought about because of the liminal and ritual nature of the enhanced theatrical environment. There is an equivalent effect in *Ugly Lies the Bone*, where the digitally enhanced scenography placed us simultaneously outside and within the boundaries of the play. Broadhurst observes the power of technologically enhanced theatre. She suggests that the most important contribution to art is the enhancement and reconfiguration of an aesthetic creative potential which consists of interacting with and reacting to a physical body, not an abandonment of that body. For it is within these tension-filled liminal spaces of physical and virtual interface that opportunities arise for new experimental forms and practices (Broadhurst 2006: 149). *Ugly Lies the Bone* and *The Nether* were not experimental theatre, they were mainstream theatrical products produced and presented in London's West End. The aesthetic of agency is thereby being presented in mainstream theatre, where the direct interpretation of digital culture is shown through very challenging plays which themselves make aesthetic use of digital culture.

The Pre-Liminal

Transformation is an element of aesthetic agency where there is pleasure in becoming someone or something else. The pre-liminal stage is a separation from the ordinary in preparation for transformation. In an online article, Douglas Davies in *Rites of Passage - rituals, world, burial*,

body, funeral, life, cause, time, person describes the pre-liminal state of death directly when he describes death as separating the deceased from their statuses of living parent, spouse, or co-worker. The period of preparing the dead for burial or cremation moves them into a transitional phase when they are neither what they have been nor yet what they will become (Davies, 2019: 1-3). He suggests that such moments of transition often involve uncertainty and potential danger and that the ritual impurity of the corpse derives from its inability to respond to others, yet is still present in their everyday routines. The actions of others are notable in Davies' description as it highlights the behaviours during this rite of passage when people pay their respects to the dead, marking their former identity with them, expressing sorrow for the bereaved and, by so doing, reaffirming their continuing relationship with them.

The two plays handle the pre-liminal metaphorical death in different ways. In *The Nether* there were three characters involved, Morris, Doyle and Sims, each of whom approached the preparation for transformation differently, while in *Ugly Lies the Bone* Jess was the only one who explicitly transformed. Morris had a metaphorical death by going undercover in her job as a detective. This was a hidden role and was potentially dangerous. Her colleagues might know what she was doing but would not acknowledge her when in a virtual state. If her virtual identity was revealed, then her case would fall apart. She had to leave her normal professional identity behind. Doyle was a little more complicated, as he was secretive about his online activities. He also had to leave his normal self behind, but others were not aware of his change. It was a dangerous situation for him as the discovery of his online activity would disgrace himself and his family. There was also a reference to Doyle wishing to become a 'Shade'. As noted, shades could commit to total immersion and spent the rest of their lives in the Nether. It was as though they were in a coma, and their body eventually failed. The father of Morris was also a shade. Morris was able to use her father's logon after her father's death to enter her father's realm, which coloured her perception of online abuse.

Davies (2019) expands his description of the process of a rite of passage by describing how initiates in their liminal period may be taught the mysteries of their culture. So, the dead may be given their education in the form of guidance provided in sacred texts, chants and prayers to assist their journey, and very often there are special priests or ritual experts to attend to this task. The ritual expert may also be referred to as a shaman or guide. In both plays, the ritual experts are representative of perceptual opportunity as attractors and connectors which help the characters retain focus on and guide them towards their goals to help them achieve their

rewards. Sims, the master programmer, took the role of a ritual expert in *The Nether*, as did the therapist for Jess in *Ugly Lies the Bone*. We were not told of the metaphorical death of Sims in the play, and this was consistent with his role as a guide. Sims did transform as a result of the rite of passage, but this was caused by others undergoing change, and not of his making directly. Jess, in *Ugly Lies the Bone*, had undergone a severe change in her life, nearly dying due to a roadside bomb. She was not killed but was terribly scarred, was in constant pain and was still in danger of becoming ill from infection. The people around her respond inappropriately or look away (Ferrentino 2017: 49). She is invisible to others and also to herself, as she does not look in mirrors representing a form of transformation.

The Liminal

Turner would express the Woodnut and Jess characters as neophytes having to relinquish all connections to the past, forgetting who they were to transform into something new. The two plays had a commonality in approaching the identity of the main characters. In the Hideaway no one knew your true identity, you should be anonymous, and Jess was immaterial and invisible to others and herself. Anonymity on the internet is widespread; even when we wish to be known we work behind a user ID, email address and belong to a domain that does not relate to our physical presence. Albright and Simmens see the internet as a kind of virtual mirror upon which one can draw an idealised self (Albright and Simmens 2014: 290). However, to do this, they suggest that users must have anonymity, accessibility and affordability. In other words, they should be unknown, have access to the internet and the ability to pay for the service (Albright and Simmens 2014: 291).

In *The Nether*, the issue of anonymity is raised when Sims said to Morris on several occasions during interrogation that ‘you shouldn’t even know me, I have the right to remain anonymous’ (Haley 2014: 15). Anonymity is a form of identity and is also the means by which the characters in *The Nether* gain the feeling of presence and co-presence. Towards the end of the play Sims repeated ‘We have the right to remain anonymous, it’s unethical of you to reveal her identity to me’ (as Morris reveals Cedric Doyle’s identity as the little girl Iris) (Haley 2014: 60). Unethical, he meant, in respect of assumed terms and conditions of membership which allows for anonymity. This one point raises the question of identity on the internet played out through a theatrical production. Hayley used a device of suspense; although we had met all three characters in the play, we did not yet quite know who each one was in the Hideaway. Moreover,

we are kept in the same state of suspense as the characters in the play. Lonergan describes Hayley's play in terms of issues relating to the circulation of pornography, the authenticity of online performance, and the ethical impact of web-based behaviours. Lonergan (2015:47) extends his analysis to say that Hayley also identifies the need for intimacy, for acceptance, and for power. The feeling of being there within the Hideaway and with others was so strong that the outside world was excluded and the characters underwent significant change.

Lonergan develops the argument regarding identity in digital culture by suggesting that social media is a performance space that can alter our understanding of all performance spaces: it forces new ways of thinking about authenticity, creative proprietorship, authorial intention, and the relationship between artist and audience, among many other urgent issues (2015: 5). There were social boundaries and etiquette that must be observed in both plays. In *Ugly Lies The Bone* it was the normal etiquette that was challenged by the (non) presence of Jess. Normal interactions were not observed, and Jess was ignored. She was an outcast, she was othered and therefore a danger to normative behaviour. In *The Nether's* Hideaway, you had to act and speak as though in the Victorian era, and the environment was that of a Victorian-era home providing an immersive effect to encourage the feeling of presence.

The transition from the real world into the virtual environment is the crossing of a threshold into a liminal space, which requires some specific action or ritual which the participants perform in order to transfer. For the characters in both *The Nether* and *Ugly Lies the Bone*, the transformations were given more significance and hence became ritualistic, and the form of the participants may be changed, a transformation from oneself into another self occurs. In *The Nether* the direct action by the actors was that of placing the hand on a table over a palm print image and dropping the heads, a straightforward action with no indication of how the interface to the Hideaway worked. The act of logging in or going into a VR session represented simple examples of intention and perceivable consequence where short term goals were set and the results of actions were observed. The implication was that the use of a biometric login device put the characters in a transitional state. In *Ugly Lies the Bone* there is no such elaborate transition. Jess simply appeared in a lit area of the stage and sometimes was wearing a VR headset. While within her VR therapy, Jess underwent challenges and built skills to feel a sense of presence. And, while she is not with others, she does have the co-presence of the therapist to help her.

The Post-Liminal

Morris, Doyle, Sims and Jess, the liminal characters in *The Nether* and *Ugly Lies the Bone*, all encountered the discomfort of transition to the real world. At this point, through analysis using aesthetic agency, characters were transformed and changed due to their experiences. Morris returned to her role as a detective after leaving the Hideaway. She aimed to expose the behaviours within the Hideaway and take control of the servers, which she achieved. In the process of going undercover, she had to commit herself to the extreme nature of the Hideaway. On leaving the Hideaway she had found facets of her nature of which she was not aware, which scared and disgusted her. Back in the real world, Morris had to assimilate her new understanding. Doyle perhaps had the most extreme transformation: almost bypassing the state of being a shade, he committed suicide. Unable to gain intimacy and personal attention within the Hideaway from Sims, Doyle completed his journey in a way in which he retains a level of control.¹⁸ Sims' identity was irrecoverably changed; initially, Sims behaved with self-assuredness and control in the real world, and as a guide within the Hideaway. The customary condition for a guide in the liminal is to remain in the same state. Here though, Sims is stripped of his access to the Nether, to the Hideaway, his servers and loses all status in the real world.

The metaphor for the liminal for Jess in *Ugly Lies the Bone* is the VR environment to which she is exposed. However, as suggested previously, Jess was experiencing liminality and transformation within her own mind. For Jess, it was with disappointment that the therapy finished; 'That's it...We're done?' (Ferrentino 2017: 76). But it was with a clearer perspective that Jess then re-joined her real world. Turkle suggests that the individual will experience a blurring between the self and the digital world, whether this is in the form of a game or of a digital domain (Turkle 1995: 19). How each individual reincorporates themselves back into the real world after a transition through the liminal will vary from person to person, from a

¹⁸ The interaction between Sims and Iris reveals something of the real life and purpose of Sims as Papa. Papa is running the Hideaway as a business and is not emotionally invested in the character of Papa, as Doyle is invested in Iris. Papa is using the Hideaway to generate funds to create a better real world; he has purchased a sapling which is very rare in the real world and has planted it in this garden. This is something he cares for very much, and he is tracked down by the shipping instructions which are easy to find in the real world. Sims is invested in the real world and reveals a rationale for creating the Hideaway as a way of suppressing his paedophile inclinations in the real world, Iris having been a target of his sometime before. So the Hideaway for Papa is very real in that it generates real income for him to invest in the real world, and also protects others from his own inclinations. Sims has not broken any law, but highlights the purpose of government being to control, and as such wishes to control the Hideaway, which is far superior to anything the authorities have themselves. There is no law broken so the only thing that can be done to Sims is to have what is referred to in the world as banishment. He cannot live in the virtual environment; he has to live in the real world and not have access to the virtual world. In the near future world of the Nether this is massive punishment, yet in our own world where we do not have something as compelling as the Hideaway, banishment means living as we are. Papa's secret identity in the Hideaway is all but gone, and he argues ethically that Morris should not reveal Doyle's real world identity to him, but in doing so he has shown that the Nether does have a real effect on real people in the real world, even though Papa's belief is that the Hideaway is a place with no consequences.

poor outcome to one that is more successful. The role of the therapist as a guide demonstrated a more usual unchanged state for a guide but is strangely detached in the play. When Jess asked if the therapist was done with her, the therapist responds that this was not the case and that Jess could repeat the VR therapy ‘again and again’ (Ferrentino 2017: 76). Repeating ‘again’ three times felt significant, reflecting her three tours of duty. The therapist was telling her that she had a new status and should re-join the real world to engage with others in real relationships. This was resolved for the audience in the denouement or epilogue, when Jess was able to take herself to the roof on her own and she heard the voice of her mother, played by the same person who played the therapist. Her mother said ‘If you wanna be Jess now, fine, but I like Jessica better -- why I named you that’ (Ferrentino 2017: 80). This was the literal renaming of the person who had gone through the rite of passage and had transformed into a new person, accepted back into the community of the real world with a new status.

5.4 The Portrayal of Agency and Memory

It is through liminality and perhaps with the help of a guide that agency might be expressed in rites of passage and is described in aesthetic agency as an interplay between intention, perceivable consequence and narrative potential. That is the setting of goals and being able to decide what action to take to progress, seeing the results of our actions and through the build-up and agency into meaningful patterns. Maurice Bloch in *Prey into Hunter* sees the rite of passage as much more than three different states, as described by van Gennep and expanded upon by Turner. He sees as important the visceral and violent acts of the liminal rites as key to the process. Specifically, he states that the transcendental part of the initiate’s identity, which is given in the liminal stage, will dominate the rest of their lives, and the subordination of vitality must be demonstrated through violent acts (2000: 6). Violent acts will indeed create strong feelings associated with memory. Our memories comprise the retained senses of experience; the choices we made, the sound, sights, smells and touch, and not only this but also our feelings associated with the memory.

Memory is more complicated than a simple retrieval process and complicated more so when an experience is within a virtual context. Riva and Waterworth go to great length to explain the context of the virtual experience, and then the method of memory that pertains to that experience. A simple sufficiency of memory does not create identity, while a lack of memory may be enough to lose identity. In *Being Present in a Virtual World* Riva and Waterworth

describe virtuality as a product of technology that facilitates the production of the multimodal sensory input to the user. They link the attribution of sensation ‘to some distal stimulus, or more broadly to some environment or the perceptual illusion of non-mediation produced through the disappearance of the medium from the conscious attention of the subject’ (2014: 205). The processing of the experience is not merely the retention of the sum of the sensations, but consists of more complex cognitive processing. Riva and Waterworth (2014: 208) expand by saying that when we ‘imagine, think, plan, and generally deal with information that does not only constitute our experience of things and events in the currently present external situation, we are exercising extended consciousness’. They continue by explaining that it is the extended consciousness that depends upon working memory that allows us to consider possibilities not present in the current external situation. It is in the working memory that the internal world we are currently experiencing is created.

When Morris as Woodnut in *The Nether* first experienced the Hideaway she was amazed, confused and in awe of the experience, the sensations almost overwhelmed her even though she knew in her mind that these experiences were synthetic. At that moment, Morris did not care if the experiences were synthetic; the pleasure of the sensations was not artificial. Here the Morris/Woodnut character was playing out the interaction between the real and virtual environment in the Hideaway which included all of the heightened senses, controlled by the environment. Morris, at this point, had no interaction with any other character. It was later that Morris interacted with other characters and participated in activities such as conversing with another avatar of a character while drinking whiskey. Even the simple drinking of whiskey was a choice and created a pleasurable result of this action and started to build a narrative within the virtual space.

Jess had a different and underwhelming first experience with her Virtual Reality therapy. We did not even see a representation of the VR environment she is experiencing in play; we only heard loud stock patriotic music (Haley 2014: 8) of ‘When Johnny Comes Marching Home’. Jess still felt pain, and her senses were not distracted with enough stimuli. But as the therapist said, it was only the beginning. The environment had to be built to suit Jess precisely. It was only later, when Jess had a more meaningful interaction with the environment and participated in activities, that she was absorbed in the experience. She had designed a snowy mountain with feathers as snow; she made snow angels and ran up the mountain. Figure 39 shows the amazement of Jess as she sees the rebuilt, personalised virtual environment. Jess made a choice

to fully engage with the VR environment, gained pleasure from creating snow angels and started to build a set of experiences within the VR environment. Grimshaw, Charlton and Jagger (2011) comment that attention is central to cognition, and in this environment, which is novel to Jess, she had not learnt the rules to manage the environment. Still, her focus was fully captured (2011: 6). Jess was able to control her environment only after she has learnt the mechanics. Her ability to choose activities depended upon her ability to make some actions automatic, so that controlled processing can be managed in the working memory (2011: 6). For both Morris and Jess it was not the memory of the experience which creates the meaning but the agency they have within the environment. They could imagine, think and plan using their extended consciousness. They could foresee possibilities in the environments, which enabled them to experiment with choices not present in their current external situations.

Transformations are represented in two ways; as transformation when entering a virtual environment and transformation as a consequence of being in a virtual environment. In *The Nether*, when Morris, a young white female, entered the Hideaway, she has changed gender and ethnicity. Morris becomes Woodnut and is played by a black male actor in his twenties. As Morris, she had a lifetime of memories, experiences and her status as a detective. In the Hideaway as Woodnut she had no memory of her past experience, had little or no power and also had to hide her other identity in the outside world. Doyle had a more extreme change in the Hideaway, and became a young girl called Iris in a process known as age and gender play, who interacted with clients such as Woodnut. It was later, when Woodnut interacted with Iris in intense activities, that the possibilities of the sensate environment were explored. Doyle as Iris had a virtual power that enabled him to resurrect after death in the Hideaway. The virtual sensations, the power to resurrect and the virtual environment's offer of actions without consequence left Morris as Woodnut free to choose her path within the Hideaway. Morris had agency within the Virtual environment not available in the real world, taking her choices to engage in activities, profound memories are laid down.

Jess in *Ugly Lies the Bone* did not undergo identity change as such when in the VR environment, the difference was that she was gifted powers to climb mountains and lie in snow without getting cold. However, the process of overwhelming the senses changed something else; it gave her the power of agency. Before, she was immobile and in pain; without the pain she could choose to accept challenges. The power of agency acted on her extended consciousness, her working memory could imagine the possibilities, and she chose to act upon

those opportunities. In Figure 39 Jess is shown experiencing the VR environment. We were given the illusion of being within the VR environment ourselves as audience, indicated by Jess not wearing her VR headset. Figure 39 shows the full transition from the VR world to the unpretentious garage store. However, the scenography identifies that as a smaller space in a much larger map of the city, virtualising the store. Scenographically and narratively the attractors and connectors observed by the characters in the play acted as content to which they paid conscious attention so that they retained focus upon their goals in the play. Just as Jess had to navigate the virtual world, the indication was that Jess had to navigate the real world. In an interview Lindsey Ferrentino describes his play as representing VR that is so close to home, making virtual reality very real, here and now (BBC 2019). Golder Arthur of the BBC interviews the play's director Indhu Rubasingham, who describes the VR as an immersive world to get involved in, but also challenging to portray in theatrical terms. We, therefore, saw what Jess saw in the first person: if she bends down to pick something up as an attractor stimulating a short-term goal or intention to help retain focus upon a goal, we saw the VR immersive world move at the same time (BBC 2019). Jess had very personal experiences within her therapeutic virtual world. She interacted with no one else, save for the therapist who observed from outside the VR environment. The experience of the therapy conditioned Jess to help her manage her pain, and the memories of the experience were carried through into the real world. In the real world, Jess was more able to cope with her adjustment to the regular and mundane relationships she encountered, and the range of experiences such as the shuttle launch metaphorically helped to demonstrate her increasing ability to cope.

Similarly, Morris was profoundly affected by her experience in the Hideaway; she admitted that she did not just like it; she loved it. The experience was more than she had ever had in the real world and it reminded her of her youth with her father (Haley 2014: 49), an actual emotional response. As Woodnut, her moral compass as an undercover detective was broken; she not only murdered Iris at least four times but also had sex with the image of a young girl, making Morris as Woodnut complicit in the immoral and unethical practices in the Hideaway. Morris's identity was extended, enhanced, augmented in ways she had not expected, and went against all of the moral codes that she held in the real world. All three initial characters in *The Nether*, as their virtual incarnations, had agency. They experienced the real effect of the rite of passage through a virtual environment achieving rewards and transformation. Doyle had real love and real sadness as Iris; Papa achieved real financial independence through the virtual

world, and Morris achieved enhanced experience as Woodnut unavailable in the real world. As Bloch (2000: 6) stated, it is the subjugation of the visceral through violent acts that creates the feelings which will dominate the rest of their lives. Each character took their memory and experience of the real world into the Hideaway in the virtual world, and their memory of the experiences in the virtual world back into the real world. Papa was broken but not lost; Doyle was lost and committed suicide, all memory of his experience then gone both in the real world and the virtual world, to the Land of the Dead. Morris had new memories, unexpected memories, from the virtual world that collided and conflicted with her real-world morals and ethics, but were nonetheless real memories and real experiences colouring her behaviour and attitudes forever. Doyle showed considerable understanding of the rationale behind virtual relationships. When interrogated by Morris, Doyle stated that this experience of each other in a virtual environment was the root of consciousness. Doyle becomes expansive and continues that it is the universe wanting to know itself. With insight, Doyle concluded that images and sensations were fleeting, it was the relationships that matter (Haley 2014: 25). Jess also experienced reward and transformation. Jess in *Ugly Lies the Bone* has choice: she advised the therapist about what she would like in the virtual environment, ‘the way it snowed in Afghanistan.... I’ve never heard quite like that — snow in the mountains.’ (2014: 27). The environment included the snow, her settings included her response to snow. Later we hear about the trees she wished to see and how the therapist had turned the snow into feathers and made the ice like glass (2014: 37). Later on, we saw Jess in extreme conditions with snow and wind, but able to run and jump as reward, free and graceful (2014: 60). Her choices, while not creating a visual change in her virtual identity represented in the play, allowed Jess to experiment with newly imagined space. This then helped her cope with her real life in Titusville and her real relationships with her family and friends as both reward and transformation.

In *The Nether* there is an extreme act of sacrifice, while in *Ugly Lies the Bone* there is a physical challenge to overcome, an arduous virtual mountain climb in blizzard conditions. Bloch refers to the sacrifice as subjugating the visceral through acts of violence. In religion, this might be the physical sacrifice of another species, while in Christianity sacrifice is represented by metaphorical body and blood. In *The Nether* the axe in the virtual murder of Iris, a little 12-year-old girl within the Hideaway, is used to facilitate the fluidity of identity, demonstrate agency and show multiple modes of interaction. The action is part of the rite of passage. The

act of murder is in the form of a sacrifice, both of Iris and the old identity of Woodnut. The audience becomes complicit in the morally questionable actions of the play, and are bound to the characters of the play. This was not the only action without consequences within the confines of the Hideaway; as Morris the detective points out to Sims ‘Solicitation. Rape. Sodomy. Murder. These are heavy charges, Mr Sims’ (Hayley 2014: 12). In defence Sims argues that his ‘realm is clearly designated Adult. There are adults behind the children and adults behind the guests.’ He continues that ‘This is in accordance with the statute on consensual role play’ (2014: 18).

Why the axe?

The narrative potential expressed in the content of the plays is built up through the process of the characters exercising agency and is one predetermined by the authors but appears, fictionally, to be one based on the possibilities on offer as choices. And it was the extreme choices made that inform the transformation of the characters. Both plays engage with extreme topics that appear to be a form of sacrifice; in *The Nether* there is the use of an axe while in *Ugly Lies the Bone* Jess has many difficulties in her life. In an interview, Jennifer Haley was asked about the axe. Her response was revealing, as Haley had initially conceived of the Hideaway as involving molestation. At the time Haley was first writing the play she was a web designer and talking to a colleague, it was suggested that the child should be murdered, and there was confusion about how to present molestation and murder together. Her colleague suggested the act needed to be extreme to create impact in the play. From Papa’s point of view, the use of the axe was a regime to bring people into the world, his world, one of Victorian controls. However, as an audience it made us feel uncomfortable, by the way we were complicit with the act through our voyeurism. Haley confronts the audience with a disconcerting situation and made us as audience complicit in the action. As an audience member I found the content of *The Nether* to be disturbing. Lonergan describes the play clearly as imagining that it concerns ‘the creation of a socially networked virtual world called (the Hideaway) in which (to simplify the plot) paedophiles can have sexual relations with avatars of children’ (Lonergan 2015: 44). Lonergan continues that ‘The question explored by the play is whether an action that is immoral in the real world would be immoral if carried out in a virtual space – especially if no children are hurt in reality’ (2015:44). Without having to move from my seat I was implicitly involved in the action of the play: I was not interacting, but I was engaged mentally. Sims justifies his actions in the play by suggesting that by exploring his

desires online he has avoided harm to real children (Hayley 2014: 63). Actions, such as the use of the axe, in the model of identity constitute interaction in the virtual environment. There was no embodiment to the action, but there was full engagement with the action, and the implication of the action broke through the virtual environment and seeped into the real world as feelings.

Haley continued that the real-world feelings of Doyle were that the act of murder with the axe was a way to completely dissolve into a world with no right or wrong (royalcourttheatre 2014). When Doyle thought about the world and what God was, his view was that man had created right and wrong, and when you took it away you were just left with pure being; the phenomenology, what it was to be human from the point of view of the subject of sacrifice. Haley continued explaining the other characters, where Papa's take on the act of using the axe was to make clients complicit in the Hideaway, to have a sense of community (royalcourttheatre 2014). In psychological terms, this would be viewed as being in-group. The use of the Victorian codes of conduct and dress reinforces the idea of being in-group, where no discussion of the outside world is allowed. Morris eloquently states the moral and ethical problem in response to Sims's attitude and the basis for the transformation of the character of Morris that 'Images, ideas create reality, and you have created a culture of legitimisation' (Haley 2014: 31). Morris continues 'I don't know who the first little girl was or what you did to her, but using her image revictimises her over and over again' (Haley 2014: 46).

Jess, in *Ugly Lies the Bone*, appeared to be a victim multiple times. Firstly, when she was injured on tour in Afghanistan; Jess was in constant pain from her recovery process; she was using experimental therapy; and Jess was ignored when she returned to her home town. Metaphorically, Jess was sacrificed for her nation while in service, then on her return the townspeople did not know how to react to her and ignored her. They made her invisible, as though she was to be made a sacrificial offering to the war on terror. Jess finally let herself accept the therapy and lost herself in the virtual reality experience. Transformation in aesthetic agency is expressed by the therapist when she reminds Jess that 'the virtual world can have profound, quantifiable effects on the real one. It has the power to – change your reality. But it isn't reality itself.' (Ferrentino 2014: 63). Her challenge in the virtual environment was to combat the sensory overload and move to the top of the mountain using her learnt virtual skills. In the final encounter with the virtual therapy, Jess was asked about her level of pain and Jess was uninterested. She continued the challenge with more wind and snow. The therapist asks 'What is Pain?' and continues 'living here, right now, while remembering all you once were,

all you were capable of. To get rid of pain, we let go. And when we do that... We see the world not for what it was but for what it is.' (2014: 75).

According to some reviews, the themes addressed in *The Nether* fall short of complete success. Natasha Tripney for the *Stage* says that there is interest in the way the internet facilitates paedophilic or murderous urges, but is more enthusiastic about themes of self and imagination. She continues that she is concerned we never fully understand the rules of the Nether and the mechanics of entering or exiting the environment (Tripney, 2017). However, Laura Barnett of *The Guardian*, reviewing the earlier but similarly staged version of the play, goes further to praise all involved. 'Haley's expertly crafted script, the tension ratcheted up by Herrin's hauntingly effective production, a compelling, profoundly disturbing 80 minutes of theatre, the best visuals seen on stage and superbly conceived by set designer Es Devlin and video designer Luke Halls' (Barnett 2014). The comment is impressive given the challenging nature of the content and the, at times, aggressive nature of the delivery. Barnett's comment, though, is consistent with the audience reaction after the performance, with enthusiastic applause and cheering. Challenging material similar to *Ugly Lies the Bone* and *The Nether*, such as *Cancer!—The Musical* (2016), can be received well as it is in the relationships that are exposed during the performance that engages the audience.

In *The Nether*, during interrogation Morris the detective refers to her experience in the Hideaway as Woodnut says:

'I lift the axe and do it again and again. And I want her to stop coming. It is now not just my hands covered in blood but it's my face, it's my body, I can taste it in my mouth, it's so exquisite I am crying, I have never felt so much with every nerve – But there are no consequences, there has been no meaning between her and myself, between myself and myself and if there has been no meaning then I am a monster.'

(Haley 2014: 53).

Bittarello describes other places and monsters as intrinsically different from that 'of everyday life (for example, it is a desert); time is different (myths are either set in a different time or time is different there); it is located far away; it is inhabited by strange creatures (gods, monsters, heroes) and prodigies occur there; and it is the opposite or reversal of the real world'¹⁹

¹⁹ Bitterello describes the approach to theatre in the ancient world as virtual worlds being made visible and literally brought into the real world through the use of a series of devices (exotic robes, high-heeled shoes, and voice altering masks) and "special effects" (such as machines that brought the gods on stage), such devices served to materialise alien, supernatural worlds. Otherness could also be portrayed, as in the Old

(Bittarello 2014: 88). The act of virtual murder was the catalyst for the subsequent transformation of identities and relationships. By the end of the play, all the identities of the characters in the virtual world and the real world were changing, and their own status was changing. It is much easier to compartmentalise relationships as exclusively virtual or exclusively real, but the challenge is to handle the concurrently virtual and real. It is in this complex mode of interaction that sophisticated social skills are needed. This was why Papa insists that all must strictly follow the rules of the Hideaway. Iris reveals what it was like being a virtual character in the Hideaway after she was slapped and stated that she only felt as much pain as she wanted when being attacked or abused. However, it was not the physical pain that hurt, but the emotional pain that hurt more. This emotional pain was felt severely in the virtual world. Doyle as Iris was crushed, and when Morris as Woodnut said that she did very well and that they would take care of Doyle's family, Iris did not respond, she gave a mechanical gasp and then said nothing. The last contact we had with either Iris or Doyle was the moment of Doyle's suicide.

When both Haley and Beech were asked about life without consequences and the effect of virtual environments on people as to whether they act out their virtual fantasies, both Haley and Beech said that there was no evidence to support the idea that the use of games encouraged people to act out their fantasies. Beech continued that it was only a very small percentage of people who were already inclined to act in a certain way in real life that would appear to act out their fantasies from a virtual world (*The big idea: The Nether*, 2014). The virtual environment could therefore legitimise the poor behaviour of a few individuals. In other words, violent games gave a few individuals the feeling that it is ok to act in this way, and therefore they did so in real life as well sometimes. Beech reinforced that the vast majority of people could distinguish between the real and the virtual and did not act out any fantasies in the real world.

5.5 Chapter Summary

In this chapter, I examined how digital culture informs play with identity in live theatre. Turkle (2011) and Lonergan (2016) both refer to the representation of individuals when using social

Athenian Comedy, which aimed to show that when human beings behave in a grotesque, animal-like, sub human way, by staging extravagant characters (including distorted images of the gods), situations impossible in the real world, and paradoxical reversals of the reality (2014, p.95).

media. Lonergan goes further and suggests that the analogy between online performance and actors in theatres is a useful comparison when trying to determine who we think we are and how we wish to be seen by others (2016: 28). The lens of aesthetic agency was employed as an analytical tool with which to examine the behaviours and transformation of characters within the chosen plays in the context of traditional theatre and how the methods of perceptual opportunities acted upon the characters. These methods demonstrated how attractors, connectors and rewards could be used to stimulate intention, retain focus on a current goal and rewards action taken and take a new view of performance analysis. Themes of liminality from Turner (2008) and van Gennep (2013), extended by Bittallo (2014), Harrison (2013), Szakolczai (2009) and Machon (2013), and agency and memory from Riva and Waterworth (2014) assisted in constructing a new view of the fluidity of identity (Causey 2007).

Section 5.2 described two contemporary plays that were chosen as comparative studies in identity; *The Nether* and *Ugly lies the Bone*. Digital culture and identity were examined in the plays which themselves portrayed digital culture in the form of virtual environments and avatars. Character behaviour within the play highlighted the opportunities for the application of aesthetic agency theory as an alternative lens through which to analyse live theatre. *The Nether* involved the criminal investigation of a virtual fetish site within a government-controlled internet. The three characters portrayed were seen both in the fictional real world and in the virtual fetish site known as the hideaway. It was in the hideaway that guests enacted any desire without consequence. A detective goes undercover to investigate the owner and worker within the site. In so doing, all characters undergo some form of personality transformation as defined by aesthetic agency theory. In *Ugly Lies the Bone*, Jess, an army veteran who is severely injured through burns returns home to undergo a new (and real) therapy for burns victims which uses virtual reality to help manage pain. In working through the challenges of the therapy Jess not only underwent a personal transformation but also transformed her relationships with others.

Digital liminal space is one in which we are free to explore the fluidity of our identity, and a theatrical liminal space is one in which we can present the complexity of relationships that span the virtual and the real. Turkle confirms that digital liminal space for people with online multiple identities, where people feel ‘whole’ not because they are one but because the relationships among aspects of self are fluid and non-defensive (Turkle 2013: 195). That is, it is easier to feel at one with oneself in a virtual environment than it is in the real world.

Theatrical space allows us to express feelings about those subjects which may be taboo in normal society and may be toxic to the traditional theatre (Halls, 2017). A liminoid structure was employed within section 5.3 to aid the analysis of transformation of identity in virtual spaces. The pre-liminal stage required that the characters should undergo a form of metaphorical death. In *The Nether* all the characters had to hide, or transform, their real-world identity to be able to enter the Hideaway while Jess in *Ugly Lies the Bone* was already 'invisible' to others and herself. While within the virtual environments or the liminal stage, the characters in *The Nether* gained a feeling of presence and co-presence through the anonymity that the rules of usage dictated. Jess in *Ugly Lies the Bone* must undertake challenges and build skills to feel a sense of presence and is co-present with the therapist. In the post liminal stage all the characters in both plays have had major transformations, In *The Nether*, Morris the detective is successful but conflicted by the hypocrisy of her engagement, Sims the master programmer is left destitute, loses the Hideaway and is banned from the internet known as the Nether. Doyle was so broken by the investigation and the lack of a relationship with Sims with the Hideaway that he commits suicide. Jess, in *Ugly Lies the Bone*, finds that the therapy has helped her to manage her pain and has also helped her overcome the challenges she faces in her relationships with others. This is in part that she has come to terms with herself.

Perceptual opportunities were demonstrated in the scenographic design in both plays that showed examples of attractors, connectors and rewards. In *The Nether* the set of the Hideaway showed attractors when Woodnut was able to perceive the flavour of the whiskey and see out of the windows. Attractors stimulate intentions to perform some action and Woodnut was encouraged to engage further with the sensate environment. Iris acted as a connector to help Woodnut retain focus on the current goal which later becomes using the axe. Rewards were experienced through actively being within the Hideaway. Jess, in *Ugly Lies the Bone*, was able to see the snow and the mountains as attractors which stimulated the intention to engage with the challenges. The visual content within the VR environment helped Jess focus on attaining her goals of climbing the mountain while in a storm. Her reward for taking action and exercising agency was the pleasure in the completion of the tasks.

In Section 5.4 aesthetic agency was linked to memory, specifically the memory of experience within virtual environments and how this affected transformation in the characters. Agency within the virtual environments opens up the possibilities of the extended consciousness. Riva and Waterworth say that it enables us to imagine, think and plan other experiences (2014: 208).

It is these experiences that lay down powerful memories which then tend to dominate our future real lives (Bloch 2000: 6). Identity within a continuum of the virtual and the real world is validated through the relationships in the virtual and the real world (Turkle 2013:266), whether that identity is self-identity or group identity (Turner et al 1987: 20). For both plays, the experiences of all characters in virtual reality create new and robust memories. The memories they have in the virtual world are real, and the emotions they have associated with the memories are real and exist in both the virtual world and the real world.

In *The Nether* the key experience for Woodnut is that of using the axe against the avatar of Iris. Iris feels no pain and does not suffer, but Woodnut feels it as a real sensation and comes to enjoy the experience. This is shocking for both Woodnut and the audience but it is the exercise of choice through intention and perceptual opportunities that create narrative potential and hence meaningful patterns of experience which may be carried through into the real world. For Jess in *Ugly Lies the Bone*, the key experience is the completion of her tasks within the VR therapy environment. Jess has been victimised multiple times and is ignored by the local people, she struggles with personal relationships and is in constant pain. The VR therapy provides challenges and the opportunity to learn skills which to complete the challenges. Aesthetic agency within the VR therapy system creates strong experiences of personal success and reduction in pain through transformation which helps her with her relationships outside in the real world.

6. Conclusion

This thesis investigated the idea that digital culture informs live theatre practice through gaming theory proposed by Fencott et al. The theory of aesthetic agency in computer gaming suggests that the pleasure of agency is this interplay between our intentions, what we would like to happen and the perceivable consequences of our actions and what actually happens. And it is aesthetic agency (Fencott et al. 2012: 48) and agency as choice which gives the feeling of control that lies at the centre of the gaming aesthetic. This research is located in the context of performance theory from theorists Causey, Dixon and Auslander, where Causey suggested that there was a need to investigate the performative qualities of virtual environments, and that live theatre performance theory was changing in light of an emerging digital culture which modified the nature of liveness itself. Live theatre and performance can be viewed through the lens of gaming theory, and methods can be employed from the theory to analyse, strengthen and modify new and existing productions.

The purpose of this thesis was to demonstrate the utility of using aesthetic agency as a lens through which to analyse live theatre and performance. The two topics investigated to illuminate the nature of how live theatre is informed by digital culture are immersion and play with identity, identified as among the stronger qualities derived from digital culture. The analysis using aesthetic agency was applied to two forms of live production; four large-scale outdoor immersive performances and two traditional theatrical productions where the content references digital culture and play with identity. The number and type of productions allowed for comparative analysis as recommended when using a grounded theory approach. The use of aesthetic agency as an analysis tool is a unique approach through which the outcomes demonstrated that digital culture theory may be used in live performance to examine and explain the experience for spectators and participants. In the future, the use of aesthetic agency as a dramaturgical tool then becomes a possibility that may enhance the development process and enrich the subsequent experience of spectators and participants in new productions.

Aesthetic agency according to Fencott et al. (2012) comprises intention, perceivable consequence, narrative potential, transformation, co-presence and presence. These were employed in this thesis to aid a new analysis of immersion and to suggest a new approach to the development of contemporary performance. Intention is the pleasure of being able to decide what action to take. Perceivable consequence is seeing the results of our actions (2012: 48),

narrative potential is the building of story through a sequence of actions (2012: 49). Presence and co-presence are the states of being absorbed by oneself or with others (2012: 50). The methods employed by Fencott et al. are perceptual opportunities that identify the meaning of objects within gaming, composed of sureties (objects which are expected and give understanding to context and proximity for example), surprises (comprising attractors, connectors and rewards) and shocks which break the illusion of the game (2012: 91). Further themes of illusion, proximity, discovery and experience were examined, linking the gaming theory to live theatre.

The methodological approach of grounded theory highlighted that two aspects of digital culture gaming were immersion and identity. These two qualities of digital culture could also be analysed within live theatre and led to the following proposition that live theatre is shaped by digital culture through the behaviour and agency of the participants, be they audience or performers. Aesthetic agency aids the meaning making process for the audience and links two qualities investigated, derived from digital culture, of immersion and identity. This proposition led to the following three questions:

- How does the aesthetics of digital culture inform live theatre practice?
- How do different modes of digital immersion inform live theatre practice?
- How does the identity of the digital self inform live theatre practice?

The first question ‘How does the aesthetic of digital culture inform live theatre?’ ties the subsequent two questions to the overall proposal that live theatre may be analysed through the lens of aesthetic agency as described by Fencott et al. Aesthetic agency and the associated methods of perceptual opportunities are used to help design and analyse computer games and have some common elements associated with performance studies. Intention and perceivable consequence are similar to the choices made in immersive theatre, narrative potential is similar to building narrative in participative performance but is described as the coherent build-up of agency into meaningful patterns and stories. Transformation in gaming theory is the pleasure of becoming someone or something else while in performance studies it might be described as the change enacted through the liminoid process. Co-presence and presence share the common effect of engrossment within a game or engrossment in a live performance. Perceptual opportunities in gaming theory deal with the content and suggest possibilities for interaction. Scenography and the suggestions written by authors may be viewed through perceptual

opportunities which provide content that stimulates intention, content that helps participants retain focus on goals and content that rewards the participant for actions undertaken. It had been recognised that some live performance forms contained video game-like aspects and it may be possible to make live theatre even more like video games. However, the ‘gamification’ of live theatre was outside the scope of this research. Likewise, the idea that the artefacts of digital culture, the appliances, the software, are the expression of digital culture is misplaced. The artefacts of digital culture are the vehicles through which the politics of the producer and consumer are enacted. It is the choices and behaviours of participants that create the aesthetic and aid the meaning making process.

The second question, ‘How do modes of digital immersion inform live theatre?’, was initiated through the theoretical texts of Matthew Causey, who proposed that one of the strongest effects of virtual reality was its capability to immerse a participant. The term ‘participant’ was used primarily within Chapter 4 regarding immersion and refers to an individual or member of an audience that interacts in some manner with the production or performers. The participant may interact with performers that move within the audience space, interact with other audience members or interact with the environment. It is the process of interacting with or participating in the performance with agency that creates the feeling of immersion. Causey discussed the theory and application of performance in VR and proposed that ‘the challenge is to appropriate or to develop analytic structures that will allow an understanding and discussion of these [VR] experiences and, at the same time, stimulate the development of expanded applications’ (Causey 2006: 59). Four large-scale outdoor performances were selected to investigate modes of immersion and compare these with immersion in digital culture, employing gaming theory of aesthetic agency as an analytic method. The internet presence for each large-scale outdoor event was explored, including the pre-show advertising and teasers, and the post-show feedback. Social media provided background interviews from directors and cast, and recordings of the entire events were sometimes available for review.

Intention and perceivable consequence were evident in the pre-show area and the layout of the performance area of *The Four Fridas*. A means of engaging through perceptual opportunities of attractors and connectors from the Mexican styled stalls through to the arrangement of the large scale performance provided opportunity to plan objectives of observation and meaning making during the performance. The opportunity for building narrative and feeling a sense of being there was diminished through lack of proximity and disturbed sightlines. The sense of

presence and co-presence and hence absorption was much more successful in *As the World Tipped*. It was pleasurable to be with others at the performance and enjoyable to lose myself in the illusion of the production. The effect of transformation was found to be stronger in *The Voyage* and *Wings of Desire*. Both productions used the immersive effect of implicit role play where, for the productions to make sense, the role of the audience might be changed to that of people on a dockside, ocean waves or humans being observed by angels. There was a feeling that the audience had been specially included in the delivery of the performances and there was an element of pleasure being transformed into someone or something else. More subtly, aesthetic agency in immersion can be found through qualities such as interaction and participation, discovery, the acquisition of learning skills and the understanding of social rules (within the context of a performance), proximity to points of engagement within the performance and the use of narrative or gameplay.

For the third question, ‘How does identity of the digital self inform live theatre?’, two live West End productions were selected for study, where the theory of digital culture was used to analyse the productions which themselves contained content regarding digital culture. In particular, transformation from aesthetic agency was discussed and examples of how the transformative process might be observed. *The Nether* and *Ugly Lies the Bone* both used characters who enter virtual environments and undergo transformation as a consequence of their experiences within the virtual environments. There are perceptual opportunities provided in scenography and in the delivery of the productions with which both the audience may engage and the fictional characters may express agency. Attractors and connectors are demonstrated through the complex nature of the set and video design in *Ugly Lies the Bone* for audience while the login process provides perceptual opportunities for the characters in *The Nether*. Key acts of agency within both plays are the definitive moments of transformation for the characters. In *The Nether* it is the use of the axe while in *Ugly Lies the Bone* it is the completion of the tasks, achieving goals using learnt skills. In both plays a coherent build-up of agency into meaningful patterns creates a narrative.

Approach

Having worked for many years in both performing arts and digital culture, I had already identified that the field of performing arts was changing, but the key questions had yet to emerge as to how and what was happening. This thesis takes the form of a qualitative research

project, using grounded theory and methods of data collection, coding and categorisation, field research and case studies. The initial question asked how digital culture informed live theatre; however, at that time I did not yet have more specific questions or a thesis. The longitudinal nature of observation this thesis took has allowed for a comparative analysis of digital culture and related theory as they have unfolded, shaping live theatre over a longer period of time. Technology and theory developed over the period and was even evidenced at the end of the study when a national lockdown occurred. The lockdown impacted live performance organisations negatively and in response live productions were presented through a range of online media. Individuals were able to experiment with self-representation and web-based performance using online software and much was written regarding the bearing of digital culture upon live performance. In a changing field such as performing arts, it was important that the approach used would grow with the experience gained from the research, and this was enabled using grounded theory as a framework.

Grounded theory was seen as a viable approach within the field of performing arts, as the research sought to gain insights into audience behaviours and experiences over an extended period. It is a method of comparative analysis concerned with social processes and interactions (Glaser and Strauss 2017: 1) that may assist with the generation of new theory (Glaser and Strauss 2017: 15). Charmaz supports the suggestion that grounded theory provides a systematic yet flexible set of guidelines for collecting and analysing qualitative data in order to construct theories from the data themselves (Charmez 2014: 1). Data was collected and then described in terms of concepts and categories. This was combined with research into relevant theorists in the areas of live and virtual performance, interviews, field research into live productions, the taking of field notes, and web search.

Findings and theoretical inference

Analytic evidence supports the statement that there is now more live theatre than there has ever been, with both West End and Broadway theatre rising at 5% per year consistently between 2010 and 2020, revenues in the SOLT theatres in London being at nearly 1 billion GBP, with over 14 million seats available annually. Event cinema is also on a successful rising trajectory, with an estimated revenue by 2020 of over 1 billion dollars per year globally. Counter to this assertion, web news over seven years was tracked using alerts regarding digital culture. This evidenced that the vast majority of newsworthy events reported online were concerning

business and governmental digital cultural change or initiatives, with only a minority of theatrical cultural events reported for digital culture, which is in contradiction to the financial evidence for growth in both digital usage and live theatre.

While it was relatively simple to quantify the increase in live performance, a more difficult exercise was to understand a potential change in audience expectation, in that the field research identified many very popular events which were interactive, participative, immersive and had fluidity of identity for both participant and audience member. I therefore argued that the digital effect, with the ubiquity of online video and alternative engagement, has familiarised the public to a point where they are much more accepting of alternative content formats and live performance genres. Examples of these include immersive theatre such as *Alice's Adventures Underground* and *Wings of Desire*, identity changing performance such as *Secret Cinema* role-playing, VR experience and escape rooms, and finally, live theatre presented in alternate modes such as in a cinema context or in an outdoor public space.

Key Findings and Original Contribution to Knowledge

This thesis contributes new learning in the field of live theatre and performance by theorising that modes of involvement can be derived from gaming theory in digital culture and include experiential performance, discovery, greater stimulus through illusion and proximity, implicit role play and multiple modes of interaction and participation. More importantly, it describes the role of aesthetic agency as an analytical tool in immersion, identity and the aesthetics of performance. Aesthetic agency as an analytical tool comprises intention, perceivable consequence, narrative potential, transformation, co-presence and presence and the methods employed by aesthetic agency are perceptual opportunities that aid the meaning making process, composed of sureties, surprises and shocks. Modes of involvement derived from digital culture may not take the same form in live theatre and may be nuanced but their purpose and assistance in the meaning making process remain important.

Modes of involvement in live theatre that can be derived from digital culture are:

- The role of aesthetic agency – the nature of agency modifies the aesthetic of a live performance, bringing elements of performance towards and inside the audience to the point that they become active participants in the performance. Further, their participation might be the performance and inherent aesthetic.

- Experiential performance – digital culture has encouraged new modes of live theatre experience to become more acceptable to the audience and participants alike.
- Discovery – a sense of discovery and personal achievement within the digital experience informs live theatre, so that the audience will be allowed to discover from their own point of view and perspective elements of the performance not presented explicitly in their field of view.
- Greater stimulus through illusion and aesthetic proximity – both visual and audio stimuli are enhanced to create a greater theatrical effect, with the integrated use of both digital and physical techniques.
- Implicit role-play – the simple act of being there at the live performance may implicitly transform the role of an audience member with respect to the context of the performance itself in such a way that the performance would not work without a large-scale audience.
- Multiple modes of interaction and participation – audience members are able to generally interact and participate, albeit in a fairly controlled manner, with the environment and performance.

An unexpected result of this thesis has been the indirect way in which digital culture has increased the availability of live theatrical performance. This impacts significantly on the commercial viability of many performance forms, specifically through event cinema, where on average each event cinema production in the UK generated over £230,000 in box office revenue (ArtsCouncil.org.uk 2015: 10). Other companies such as The Royal Shakespeare Company had also made their productions available online accessed through a chargeable service (RSC, 2021). At the time of writing this thesis a global lockdown due to COVID-19 had encouraged many people to use live digital applications to communicate, participate in activities, party and enjoy streamed events from live theatre productions.

This work is intended to benefit the researchers and practitioners in the fields of digital and live performing arts through the dissemination of this thesis, future presentations in digital and live performance conferences such as the Digital Echoes Symposium in Coventry and publication of articles in journals such as *The Journal of Performance and Digital Art*. The ideas presented in this thesis should expand the range of tools and approaches used by artists in the process of performance making and should enhance the enjoyment and engagement of participants in digital and live performance practice. The tools and approaches may be applied to challenge or aid development of components in the performance making process such as navigational,

choice and reward elements. The tools and approaches may be applied, not only to theatrical genres, but also to other genres such as music, dance and installation forms of performance and may modify the modes of involvement of spectators and participants at those performances.

Limitations of the research

Qualitative research is always going to be restrictive in terms of objective evidence in that it is almost wholly a subjective method. Even those methods within a qualitative approach such as observation will be affected by personal bias and whether observations can be made and recognised easily. In a thesis such as this, the sample size of those subjects, either in surveys or in the field research for case studies, will always be limited in size, and the amount of data captured will never be 100% of all the data that could have been captured. This thesis is, by its very nature, culturally limited and therefore exposed to cultural bias in that it predominantly referenced performances of the United Kingdom and to some extent the United States but did not include live performance in other international communities where there is substantial growth in both digital culture and live theatre (ArtsCouncil.org.uk 2015: 14). With regard to national cultures, this thesis was limited to the UK due to funding and time restrictions. According to SOLT (2018) and NESTA (2016) Great Britain not only has the largest concentration of theatres in the world but is also the leader in event cinema and according to Stirling and McAvoy is a centre for immersive theatre (Stirling and McAvoy 2017: 93). Future research may wish to include different cultures and different nationalities globally, which may reveal different responses from different demographics.

Great effort was taken with sampling contemporary live theatre in many forms in the field research, and where access to actual live performance was not possible, recorded performance was also used. With regard to survey candidates, the numbers are declared in the full survey reports from NESTA and others; however, the sample sizes were still relatively small, being less than two thousand individuals. The limitation of surveys for a qualitative research topic is that the responses may be limited by the researcher's bias or by the respondent's own bias and by the qualitative nature of their responses. There were naturally occurring restrictions regarding the live productions themselves, as the research could only be undertaken at one single live event at a time. Case study provides a detailed but limited view when comparative studies might provide a broader perspective. Surveys and questionnaires might have been

possible, however, NESTA surveys provided deep statistical analysis while still using fewer than two thousand people, demonstrating the difficulty of recruiting a large sample.

My own biases are culturally restricted to British western European theatre and English based language digital content. This excludes a range of content from the rest of the world, which would have provided for many opportunities within global research, as mentioned previously. This thesis attempts to provide a neutral viewpoint when opinion is given, supported by theoretical and practical evidence.

Potential for future research

Aesthetic agency was used as an analytical tool within this thesis and there is potential for the theory to be applied as a set of dramaturgical tools. The extent to which the particular results obtained might be true of other study areas points to future areas of research. The methods employed within this thesis are those commonly used in the humanities and arts in general. Further areas of research may be possible, applying the same approach within the research areas of music, dance, singing, spoken word, installation, fine art, contemporary art and sculpture. The use of a set of dramaturgical tools in the form of aesthetic agency may aid the creative team of live performance to externalise the narrative content and enhance the theatrical composition and representation. Even within the research area of performing arts and in particular live performance, there are other genres that may be appropriate for future research such as poor theatre, intermedial performance, physical theatre, telematic performance and cyborg performance. Other research areas may benefit from the research question when investigating areas such as gender in a digital context, queer theory in a digital context, postcolonial studies in a digital space, and place in a digital context. I acknowledge that there is an opportunity for future researchers to approach the research with a different method. Case study, praxis, post-performance questionnaires, online survey, observation of the creative process and performance documentation research are all methods that might have been applied

The limitations in this thesis indicate several areas for potential future research. This same research may be executed in other international contexts around the globe.

- The context of live theatre may be modified for specifics such as live digital performance, live music performance or live dance performance.
- Extending the model of identity to a theoretical model in psychological research.

- Research into the evolving aesthetic and audience etiquette in event cinema.
- Research into digital culture and ‘YouTubers’ who present video work live and also perform at live events.

Event cinema offers a new paradigm for live theatre and performance. In a large-scale survey of how arts and cultural organisations in England are using digital technologies, live simulcasting [sic] was found to be the fastest-growing technology (NESTA 2018: 2). The main purpose of event cinema from the NESTA report appears threefold; the first is as an experiment with new technology learning to understand the aesthetic and the delivery of the product. The second is to reach out to new audience members, especially those who would not normally travel to attend a live production, to build a new generation of theatregoers. The third is revenue generation. The behaviour and etiquette of the audience in event cinema appears immature, as is the aesthetic of the product delivered to event cinema. Audience response to surveys confirms that they are prepared to pay for a premium event cinema experience and value the co-temporal nature of the performance, while the successful free event cinema vehicles such as the BP series demonstrate an interactive and participatory mode of engagement with the audience who are prepared to create a new form of live theatre experience.

This thesis advances original research in the field of live theatre and performance and suggests ways in which gaming theory of aesthetic agency facilitates the distinct behaviours of people when engaged with live theatre and negotiating the digital relationships displayed in live theatre content. This thesis asserts that aesthetic agency drawn from digital culture shapes the aesthetic of live theatre and performance, and that immersion and identity are two key aspects of this process. Auslander (2018: 41) suggests that ‘what we expect from objects of our perception are culturally and historically influenced.’ This influence is reified in media, which are simultaneously causes and effects of a given historical moment’s social formations and technological capabilities.

I have proposed that that digital culture lends presence and weight to live theatre and performance, and as technologies develop further this relationship will grow, transform and differentiate. And, as artists continue to develop, new forms of performance behaviours in digital culture will continue to enrich the experience of the live performance consumer.

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8. APPENDICES

8.1 Interview Transcripts

8.1.1 Interview with Luke Halls

Luke Halls Video Graphics designer for *The Nether*

G:Hi Luke

The aim of the interview is to understand your perspective of the creative development work you did for The Nether.

My PhD concerns how digital culture informs the development and delivery of live theatre. I am looking at two aspects of digital culture; immersion and identity. With respect to The Nether identity is a really strong aspect on which I am focussing.

Your work in The Nether enhanced the minimal interrogation room and helped carry the transition for the real world into the virtual world. As I mentioned before I also think your work says something about control, isolation and surveillance which I think impacts upon the individual.

I would like to focus, if possible on the aspects which relate to identity, however I believe there is much I could learn just talking around your work.

Greg

1. Brief – were you given a formal brief, how did the initial discussions work?

G: it's got to be a few years ago that you worked on this, it must be 3 years ago you worked on this?

L: yea that's right, this is the original story board that comes with the white card model this is Ezza's design and these are the things I was given to play with and that was my brief and it shows you how loose the kind of idea is

G: That was your brief? Which is a series of storyboard pictures for each scene

L: Yes correct that is kind off what you get from a set designer I had been talking to them for a while before this just to play around with ideas

G: So it's very very high level and the specifics of what you actually provided I mean you have got a space to provide your work here

L: Then it's all about interpretation of the piece and reading the piece and having a couple of conversations with the director. Then I can show you my response to that so this is when I will start to play around with ideas and images and you will see exactly where I got to from these (storyboards) I was playing around and taking a look at different technologies and the reality and the mundanity of surveillance and how surveillance has an aesthetic so there was one route I could go which was very Iron Man which I wanted to completely avoid so this is the kind of futurism that I wanted to avoid because I was under the impression that technology is mundane ultimately

G: I agree

L: it's actually practicality it's not futurism it's actual just held together job done so I wanted to avoid all this kind of stuff which said future too much because I don't think.

G: you used a phrase aesthetic of not technology I was thinking biometrics but it was

L: yes it's that kind of stuff I think the surveillance

G: surveillance

L: surveillance and that you know that this is where people go to in this kind of high flashy designing kind of way

G: which is all meaningless

L: it's all meaningless, a friend of mine who is a product designer and he said we were talking about future tech he designs technologies that don't exist they are theoretical technologies and he said well the thing is as soon as it becomes ubiquitous or user based, I will tell you what we were talking about we were talking about a play that I did last year called Oil at the Almeida which at the end of it had a new technology involved so it was a fishing device with existing hub so a continuous power supply that came from a hydrogen fuel ??and the set designer and the writer imagined it as this kind of beautiful glowing orb that sort of sat in your home and gave your home power and so I spoke to my friend who said it just wouldn't be – it would be a beige box that sat under the sink and that's what it would end up being you know when it got to that end user that's what it would be it wouldn't be anything interesting. We didn't take his advice on board it was a similar kind of thing because I wanted the future to feel, so the real world the interrogation world was about feeling drab, mundane ordinary and synthetic actually. Then I wanted the virtual world to have all the desire all of the reality all of that so everything in the virtual world (I will show you in a minute) is actually derived from real photographs, so I re-engineered real photographs in order to create a 3D world because I didn't want it to 1, feel like a computer game and I wanted you as a viewer your desire to be in that world

G: which is exactly what came across

L: you had to line yourself with the paedophiles really

G: absolutely

L: because ultimately that's what the piece was about it's about connecting with these people who have desires that they are not quite sure what to do with. So this was kind of a couple of pages to remind myself of what I didn't want to do but this starts to get more into the world that I was interested in which is much more sort of ugly and mundane.

G: well it's something that I do in my area I use the term biometrics and we use biometrics in security and identification all the time we call it digital signature technology now and they have been around for years and it was all specialist stuff and you had to have your add-ons now you can do biometrics in Disney land on your locker, and we've been able to do that for years

L: and this was another sort of more design led, there was something about this kind of typography that I was quite interested in and especially as far as the report goes there was something about the report, so these are the sorts of references that I was pulling out and so these are the first images that I started to make so there is something about the authority of this, I sort of started to do logons but then I realised that logons were really dated and it's not about that at all

G: it's really tricky thing it's something I have come to realise as well the idea that if you do something about technology you said yourself that it is mundane technology it's self has no intrinsic interest

L: and whenever I have seen technology done in theatre it has always been done with no thought whatsoever and it feels really dated so everything that any other designer that I have seen has done technology it feels like it's the eighties and I was just not interested in doing that. I am hugely interested in futurism and also the impact on the brain and technology so I was much more interested in this kind of stuff so you can start to see the kind of images I was making this is my first pass, and then the reports started to become quite interesting and I got really stuck on microfiche so I was looking at how you might analyse data

G: ah that's where that block of images came from

L: well that's where all of that stuff comes from so aesthetically there were two things for the interrogation that I was interested in is microfiche so how would you analyse somebody how would you pressure somebody in that kind of situation, this does it really well and that's how it ended up, I would just film them and then take each frame and max it and then it looks like your properly analysing people and then the other thing is redaction so those are the two aesthetics that I was trying to get across so that the kind of sense of report it's very official but also a sense of someone watching them

G: and I like that touch as well of the redaction where it was half redaction so you could actually see underneath it and it was just lovely it was a lovely touch

L: yes so those are the kind of images that's what inspired it and I think you can see that now when you look at the final pieces so those are the things I was interested in and that's how I got into the interrogation scenes. For the Hideaway obviously it was a very specific style of house so I was starting to look at blueprints and stuff but it was less interesting, but this started to become more interesting which is basically a crime scene reconstruction

G: the 3D colour..

L: yes all of that this is about how do you extract 3D data from a photo so how do you recreate a scene in 3 dimensions

G: so I'm going to ask a question here I apologise if this is incredibly rude but I don't know where your work was applied in the Hideaway?

L: so it transitions in

G: so it transitions in I know that part, but once you're in the Hideaway?

L: so it's only when the interrogation started to breakthrough when we were projecting over the whole lot

G: right ok, I was just something thinking had I missed something

L: no that's fine, so it was about how we get the right feeling as the transitions of the world because without those transitions

G: so the transitions in and out the transition out of the Hideaway...

L: was always into the interrogation room

G: I will have to look to see the specifics I will have to watch the film to see the specifics, ok while you're looking for something I will move onto question 2

2. Any comment on the name the Nether?

L: no, not really

G: because in all the interviews nobody has ever said why the Nether? The Hideaway is sort of self-explanatory but the Nether isn't.

L: well the Nether is also errm from second life isn't it? Isn't it in second life the world called the Nether?

G: no it's actually in Minecraft

L: oh is it Minecraft I knew it was one of them

G: you can actually build yourself a Nether portal you have to build yourself a Nether portal to get to the Nether.

L: I don't know if the answer to that it was named before I came on the project

G: fine, ok I think we can spin over question 3

3. Technology – How it was done; TV desk, cameras, real time video switch, projectors, After Effects, other tools?

G: I am guessing you used a whole range of tools maybe video maybe photograph, other tools to manipulate images and then the thing that caught me out was that I hadn't spotted the real time cameras

L: I don't know about the name, cameras yes we used very cheap cameras

G: this was this stuff on the desk? And it was only the interviews that I listened to and there were cameras and I missed that I was quite high up

L: yes, there were a lot of digital zooms interfaces and stuff that were in some of the tiny little windows just to enhance some of the performance and just to really pile on the pressure on him to make him feel like it wasn't just Morris watching there were other things going on. This is the first transition into the Hideaway (describing the scene playing in background) and we sort of would reveal into that

G: there were different actors who played those different parts so you have to have different sequences

L: yes multiple versions, so this is a good example of the scenic reconstruction work to where ultimately we end in a photo but it was something about the reality in the vivid photo that work quite well and we would pick out elements from each scene and turn them into something we would talk about and we would sort of do some analytics on that so again that's how we would go from photo and deconstruct it and then working backwards so everything I wanted to be photographic so I wanted it to be somewhere I would actually like to be, so whether it was us projecting over the top you know complicating it, you really wanted it to feel like a warm place especially after you have been in the interrogation room

G: I think the whole construction was inspired – I am very sorry that it cost so much to put on (laughter)

L: I know it's just one of those things plays about futuristic paedophiles don't really sell tickets apart to a young audience all of the £10 tickets would go but not much else

G: so this bit I remember

L: so this is about you know looking at how he is being analysed and being judged and at that black and white straight out the full colour of the Nether gets you back into the right mind set

G: yes very much so, that was Sims there wasn't it? I had the younger slimmer chap playing Sims the night it was on, so did you have to swap all of those videos over, all of those pieces over for the two actors?

L: yes, so I just shot everything twice, so you can see the redaction, so the rapport was always quite a big sort of thing for both characters

G: it is in the same way performing the virtual action of paedophilia legitimism's the report legitimism's the interrogation and the surveillance, it's a very curious thing because I found myself torn with something like this which is on the face of it no worse than World of Warcraft and the first person shooters and splitting zombies in half, you know absolutely grotesque stuff, and virtualising it as a game you have that ethical question

L: yes it's interesting that that isn't an ethical question really that people are absolutely fine with that but obviously any other desires that are implicated it is a moral question why is it not a moral question for murder when it is for molestation? And I think that there are two ways to look at that one obviously the molestation side of things is taboo

G: yep taboo is a word

L: and rightly so and the one thing we learned from speaking to psychologists who specialise in paedophilia before and during the research for this project that actually no one really knows about paedophilia because there is no research because there is no money in it because it is so toxic the subject so no one would touch it as a subject which is quite interesting

G: I haven't actually talked to my brother about this he is actually a clinical psychologist in trauma and abuse

L: but no one really knows about how you can reconcile those things for somebody so it's very much seen as a lock them up and that's all there is

G: well I've just realised I should probably talk about this to my brother and get his take on it I mean a lot of this stuff I just need to underpin with psychology because this thing of the virtual world is good enough to be real enough to work – I am quite happy with that

L: yes that's kind of a given really – I don't even question that kind of stuff anymore. Have you read a book called Homo Deus human god by Yuval Noah Harari? He wrote a book called Sapiens a few years ago you might have seen this it was quite popular about the history of humanity and this book is about the future of humanity and it is interesting as a thought experiment they are talking about consciousness and how humans may intertwine with technology in the future in kind of the long future I found it very interesting the thought experiment which is kind of what we are looking at

G: there's the cyborg thing in performance art there are a lot of people doing some really weird stuff with cyborg work, the old school who is a guy called Stelarc who has been implanting himself with mechanical body parts should he actually had a prosthetic third hand or he was cabled up and controlled like a puppet across the internet and so that's kind of the old school

L: yea, but that is that's really kind of 80s/90s interpretation of human and technology and that's not what it's going to look like – nobody has any idea of what it's going to look like

G: yes I agree

L: and I think it's more about understanding consciousness and actually attributing consciousness to these things and that's where we are going to start to combine.

G: so the benevolent robot, the robot helper

L: it's more a misunderstanding of who we are than what they are

G: yes they don't have feelings – even if they are carers (laughter) but nor do we

L: ultimately when you start looking at the brain as an evolution defined series of chemical and electrical impulses then you are no different from a processor you are going through predefined processes that you have no control over so you start to think like that and there is no real backing for consciousness or freewill

G: yea I might say that's a justification for saying using the paradigm of technology to say that we are technology

L: but the conversation always goes when are they going to become like us and I think it's much more in the middle, we will change the understanding of who we are? I mean and what our brains are and what consciousness is?

G: Those people who maybe haven't learnt those skills or have fewer of them may struggle and may interpret the best there is and really never develop beyond that and get stuck in that so there are a number of dangers. Anyway that's where I am coming from in my thrust.

I think my next questions I might pick out one of two specifics, the red hand on the desk here when they sort of login absolutely agree with how you handled that

L: I was vague enough

G: absolutely and over and done with so the login was

L: I didn't want people to question it

G: yea yea

L: that was the idea

G: the problem is if you start going into it what are you going to win?

L: it wasn't about the technology it wasn't about how you logged in it was just the fact that you just did

G: so that as a technique and absolutely minimal technique just to say something very quickly get past it and move on I really appreciate the technique was that somebody saying ok red hand now?

L: yes ultimately there is no point creating interactivity where it doesn't need to be, I think there is a lot said about, I think if you've watched the interview with me and Ezz, I speak about this quite a bit about there is no point doing interactivity on stage really when it can be rehearsed because you can make it work a lot better with pre-rehearsed than you can do live unless the technology is involved in how the piece develops or how the actors perform then there is every right to have that technology but then that technology needs to be in the rehearsal process

G: yes it does, I have tried exactly this myself before where do you do things live or do you do it

Recorded? and I know exactly what you mean intermediality would be the term where you have the technology or projections or whatever it is and the performance and they have to be together but interactive intermedial stuff I wonder if there is another term that I'm missing on that so that's the answer to that

L: that was a TV and a table (laughter) ultimately and I have had so many questions about that because there was a TV and you can't do anything else on ashow.

G: I haven't got a picture of the first transition which is Morris transitioning into I think it's a bedroom, but for me the simplicity and the care of that was something I really appreciated

because yes I could see how everything was working mechanically but the performance bit to tie it together where the rendering and then bobs your uncle review and there was Morris in exactly the right position as Woodnut just delightful just delightful

L: well you had to get the connection between the two characters

G: yea but so nicely done and just as an interpretation of that my impression was that the complexity of the transitions went from highly complex in transition to much much less complex and the Hideaway set went from box screen image to something bigger to something bigger to something full stage

L: yea because I think at the beginning your setting out the scene aren't you and so you do have to do things that are slightly more complex but then as the play takes form you have to do less and that's often the way

G: I had forgotten about the projection around on the first scene just totally forgot about that. Now something is going on in this one

L: so this is where the world starts to fall apart

G: so this bit in this picture is the set revealed?

L: the set is fully revealed and I am projecting over everything so it's fully revealed and I am projecting wireframe

G: This is the second time we see the Hideaway I think and we have got the split levels and we have gone from the box to the oblong, how did you achieve the effect.

L: I didn't have the capacity to animate that so again with work in theatre you are working to set budgets so you have to try and find a way to communicate the right ideas so I wanted it to feel like they were digital so I filmed them and basically turned them into 2D parties just created a 2D effect rather than trying to do it in 3D because in 3D it would have been very very complex.

G: and time consuming and expensive

L: yes all of those things and it didn't matter so it's about communicating what needed to be communicated and I came back with the 2D effect.

G: this picture here which is the third time we see the Hideaway or thereabouts

L: yea and that's more developed and we are projecting over the whole lot err and again it's to try and convey the idea that actually the Nether is not the perfect world it once was for Sims and so there is this glitch that is sort of starting to encroach and actually the real world is coming in and it's becoming a bit more...

G: I am so glad I got that picture for you to describe that because my recollection is so poor on just that aspect there

L: so really it's about ultimately we get to a point where at the start of the play there are these two perfect worlds that are separate and by the end you realise that you take it with you you know you take the real world into the virtual and you take the virtual into the real, and nothing is that separate I think and I think that's where we got to at the end because ultimately we take all experiences with us and they all form who we are and I think that comes across if you playing a little girl in a computer game or whether you're in real life I think both inform the other that just human nature.

G: We have been through that one the redaction and the control I made a comment that in the same way that the action of going through the performance with the axe and the killing of Iris legitimises the paedophilia the report legitimises the surveillance as an artefact as an object as an action legitimises Woodnut, how would you take that sort of comment? It's the artefact that is the evidence

L: we yea I think it's more about how the report is Morris trying to make something that's quite ephemeral real in a way so it's about how she feels and her difficulty is trying to take how she feels and turn it into something solid and I think it is that solidity that I think the play is trying to get at is that actually these things aren't quite as black and white as they may seem, I think that's what the report does and it is cold.

G: it's supposed to be objective, does the reductive nature of the report really transmit the full emotional impact you know for all three people involved

L: or does it explain why Sims is the way he is, it doesn't explain any of their situations really because life is more complex than that and emotions are more complex than that people's actions are more complex than that and I think that is what we are trying to get at so I think that by the end I hope that people feel a modicum of sympathy for all characters and I think that actually demonising of that particular moral issue, it's very easy to lose sight of the fact that these are actually people that have had experiences that have driven them to this.

G: and ultimately Sims, all he really wants is to have a nice tree in his garden, all of the work is to make a nice real house and a nice real tree in the garden.

L: but I think he is also masking his paedophilic nature as well and he has learnt a way of controlling that and he has had to learn to do that himself he has had no help so the garden and the tree is his way of controlling his impulses which is quite interesting and you know you don't really know whether he built the Nether or the Hideaway for himself or just for people like him, yea I don't know

G: the implication sort of reading backwards is that yes he did and he had a previous Iris

L: yea of course I had forgotten about that

G: who he would enact this out and brought in the others who joined just like the nude theatre in 68 before it was legalised, they turned the royal court into a member's only club so that they could have these avant-garde cutting edge nude plays in the same way, subscription only very similar to the history of the royal court theatre and likewise Doyle as Iris would have gone through that process having axed many other Irises himself

L: and then run out of money and had to go on the website

G: like a gambler or a drug addict same kind of thing so you can sort of walk that backwards, a lot of highly structured text in there which I think is very well thought through, skip that one because you said there transitions going in

L: well that's projection over the top as well

G: yes I could see that there was something going on

L: there are trees there but we are projecting more trees over the top

G: are you, are you, god, I didn't know, I didn't know, so I recognise that your time is precious so I will try and keep it very limited. Your favourite bit? What sticks out in your mind that you would say oh, I am really pleased with that bit that I did

L: err, it's really difficult, one of my favourite pieces I have ever made holistically, I am not sure if there is any very specific bit's erm, I think it's the best piece that I've made as far as tying into a story and developing a story, so I'm not sure??

G: no no that's fine, you are still so engaged with the story it's fascinating

L: it's the ending, with just flashing there's a couple of little detailed moments, the end where we just flash up a picture of a girl, I am quite proud of because I think it's quite a sort of punch in the gut, so I am really happy with that moment, there are a couple of other moments, there's a moment where in this scene where the bed is coming down and actually you can see it there where the girl is projected onto the bed, there's an outline of the girl sleeping on the bed, there are a couple of little details like that that I am really pleased with, but I am unlikely to make a piece of work like this again I think because it's such a sort of perfect storm and I think you keep making work in the hope that you get to do shows like this every so often

G: Wow

L: and it had a profound effect on my understanding of theatre and my own practice, and I hope to make more work like this but it's really rare, and I think that there were many people that didn't like the play dint like the writing thought it was wooden but I have not had any criticism about my work on the show which again is quite rare

G: I have to say I am a big fan I thought the whole thing was awesome, just utterly awesome

L: thank you, but it plays into my strengths as far as futurism understanding of technology and how technology fits into performing arts how technology fits into humanity and the brain

G: I see, in the online interview, I don't think you got enough air time at all, I think what you have discussed here today has been far more detailed and far more interesting

L: yes, I think it's quite difficult taking questions from that kind of audience as well because I don't think they understand the kind of level of thinking that has gone into this work, and I probably didn't understand the level of thinking that's gone into the work until afterwards a lot of the time, a lot of it is gut instinct

G: ok, number 11 is one for me, which always cuts me up, when you put tonnes of effort into one thing and people go yeaahhso what. And then you do something that's like I've got to get some throw away like you spend a few seconds something and people wow about it

L: yea but that's the nature of what is doing what is ultimately quite difficult work in performing arts you have to move very quickly and you have to respond to what's going on on stage, so there are plenty of times where I have worked on something for a couple of months and it gets binned because it's not right and then there is a piece that took you 30 seconds and turns into the whole show, but that doesn't matter I don't see those as separate, one begets the other I think really there is no way that you can make the 30 second piece of work unless you have done the 2 months beforehand, so even if that 2 months doesn't end up in the show it does because it's about your thinking and your interpretation

G: oh ok that makes me feel better about myself, that question is really about me

L: one of the things that I try to teach animators you know animators that come through this place, is that there is a phrase that may not make sense to other people which is 'make your work good enough to throw away' so work very hard on things but don't get hooked on them you know if something is not right it's not right but there is nothing worse than something not being right and you not feeling that you did your best on it, so if someone throws something away because it's not right and your like but I could of....., that not where you want to be, you have got to make it as good as you can and then if it's not right it's fine let it go, I think that's the kind of pertinent kind of work that we do, you can work on something for 2 months and it ends up in the bin but that doesn't matter because it has enhanced your thinking about the piece so we are not looking at these as 20 different vinyats? And I spend a week on each vinyat? (46.45) we are looking at this as a show that we are designing and you end up with a show, so breaking it down into individual parts isn't that beneficial.

G: I am coming more or less to the end, just want to recap on The Tempest an arena performance which we talked about before

L: sure, the Tempest I haven't seen, I mean I know all the people that are involved in it, I will try and see it at the Barbican, and I am very aware of all the technology but I can't really comment on the sort of creative impact of it, but it's interesting that people are developing pieces like that, and they will always and there has always been those kind of shows which are defined by the technology.

G: now you see one of the things they said was that they wanted to get a really good balance where the technology didn't get in the way

L: everyone says that (laughter) whether they achieved it or not I don't know

G: it was a curious thing some of the bit's which were scenography I was very very comfortable with I quite liked some of the sprite work with Ariel but ultimately those sections which were real time actualisation the animation of the sprite became about the animation of the sprite

L: and do you think that the scale and the transparency of the rendering, do you think that gave Ariel a different character or that you wouldn't otherwise have got with just the person on the stage?

G: it was spectacle

L: and is Ariel about spectacle in the Tempest?

G: I think it was a technology led piece and I think it did get in the way ultimately got in the way more than it enhanced, I would have just taken it down a notch, because it was very effective but just down a notch.

L: yes I think that's the nature of that kind of thing, I think it would be odd for a director to say I really want to make a piece which is overshadowed by technology.

G: well they said they didn't want to do that

L: yes I know but of course they did (laughter) they are not going to say the opposite are they? But ultimately the skill of doing that doesn't come with cutting edge technology, I didn't use any cutting edge technology in the Nether because I wanted a system that was robust and simple and means we could adjust it to the piece.

G: and you had a theoretical basis for doing that which was you wanted to show the mundanity of technology when it's used in a robust and normalised manner when it's everyday surveillance, what's it like? Well it's like a lampstand, it's like a light switch it's just there or a beige box under the sink.

L: and ultimately we play with the oculus, there is a game that comes with Vibe, where you do odd jobs and there is one where you are a chef in a kitchen it's a multi-coloured cartoon kitchen and it's really poorly rendered you know it's a cartoon thing, ultimately you put the googles on and you have got the controllers and your sort of picking up virtual toast and putting it in the toaster and making all the meals and it's kind of hilarious you can smash everything and throw it around and I play it quite a lot, I remember the first time I put it on and thought well this is garish and horrible, but it's amazing once you have got the interactivity how much your brain just goes odd ball this is normal we are all good, I understand what this world is and it doesn't matter what it looks like the aesthetics of it doesn't actually matter to your brain at all and then you play it for about 10 minutes and then take the googles off and life feels really dull oh we are not in a bright red kitchen

G:

I would like to say thank you very very much Luke for your time

L: no problem thanks for coming down

G: I hope it's not inappropriate but I have a small thank you for you, hope you enjoy it.

L: thank you very much.

8.1.2 Interview with Sam Bishop

Interview with Samuel Bishop – Operations Manager, Electric Cinema, Birmingham

By Greg Marshall

Event Cinema

1. How it works for venue: distributor/direct with provider, restrictions, margin

G: I am curious about how the mechanics of how event cinema from your experience and point of view worked

S: Just for my clarification event cinema in my industry there is two interpretations of it because from an exhibitor point of view which I think is what we are talking about as in cinemas, event cinema is we would be talking about National Theatre, RSC live streaming of theatre aren't we because the distributors also use the expression event cinema to formally mean any film which its release in itself is an event like a major big film where everyone comes together like the beginning of Paranormal Activity or a major release, there are multiple platforms to encourage people to engage with the film in addition to coming to about live streaming?

G: yes it's live streaming

S: Great perfect, so what was the question again?

G: so it's really from your point of view for a venue how do you interact with the distributor or the publisher of it if its direct, are there restrictions, what gains do have on that for yourself?

S: Great, so it's reasonably easy to establish you need a satellite dish on top of your building everything is sent by satellite and it's just one input into a projector and it streams through a domestic Sky box effectively our one was called an Iscript so it has a B and C connector to the roof and you record so then you've got that content and you can stream that live or you can record it like you would anything on a Virgin box or whatever.

G: I read that it was all satellite based but I thought really? Is this not coming across an internet link or a VPN or something like that but it's all satellite?

S: it's all satellite, because it's all live so it's an encrypted signal most of it is, there are a number of different distributors if you like of event cinema the major ones being

National Theatre and the RSC they have got the lion's share of the content but there are many others there are lots of examples like Ian McKellen for example did a live interview from the London Palladium I think so things like that one offs which are sent streaming but the majority National Theatre yet they buy bandwidth on satellite channel and beam it to all cinemas which has about an hour's delay between the live performance and it going on to the screen, but all cinemas are then encouraged to record it you record that live stream as it comes in and then you play what's called encore which is not at all live but from the audience point of view is actually the exact same experience but just recorded but is often billed cheaper than the initial

2. Delivery: any technical challenges, difference by supplier/source, audio

G: so you have sort of half answered the second question in terms of delivery the technical challenge, it's via a Skybox is it?

S: a similar thing yes like a satellite receiver

G: so you've got to have specific satellite receiver and then everybody plays into that, so might you have one that comes via satellite and then another one that is streamed across the internet for example.

S: almost definitely not the internet is not yet able to do streaming in definition/resolution that is high enough to be screened, we can receive content via the internet but you have to ingest it that's what it's called like download it onto a server, but to be able to play that back whilst receiving it like you would on Netflix it's just not possible there's not bandwidth

G: because we are looking at high definition on this

S: yes definitely

G so that is actually part of the attraction for audience members that they have a large screen and its high definition. Do you have any audio I know some of the different productions play around with the audio so they might have audience audio presented behind you so that you hear clapping coming from behind you and audience response that sort of thing do you have to accommodate that at all or is it seamless to you once it's plugged in?

S: yes it's pretty seamless so there are up to 7 channels of audio that come out the back of the receivers which go into the sound processor of a cinema and that will all be mixed off site by an engineer, sometimes live, normally quite simple it wouldn't get as

complicated as cinema would be mixed but yes it's pretty straight forward, it presents problems with live of course because the actors have to have microphones and if microphones fail on stage then they fail all around the world, and there is not much you can do about that.

G: yea I have come across that in reading on some blank spots on stage you can sometimes get if it's like that, yes you do need to prepare the audio and generally what's said is that they tend to use field mics so that they can pick up everything from everywhere.

S: Yes including hecklers or coughers or anyone in the audience who is attending that performance that night it all comes across and all gets beamed around the world.

G: yea so there is some manipulation then sort of reducing audience sound during the production.

3. Benefit for venue: higher value product, different audience

G: what about benefit for venue, higher value product, different audience pulling in same people again or different people again?

S: yes it's great for us well actually you can get whole different audience you can attract a different demographic to your venues, the Electric for example there is a lot of people that these programs were shared amongst theatre mail outs who hadn't come to the cinema before they never had considered it and then they walk in and it might be the first time I remember the first one we ever did was Othello and everyone came suited dressed up in tuxes which was amazing because they didn't know what to do we had pulled them from a different demographic and they didn't have the experience it was also interesting that people clap and people stand up you get ovations a hundred people clapping at a Cotton Sheet the actors can't respond to it, but the culture of theatre is translated to cinema which I was really impressed to see.

G: so that's in answer to you do get a different demographic, a different audience that obviously an advantage to you because you can introduce your venue and other products that you are delivering on there, it's normally a higher cost than normal film?

S: yes so most of this is built into the contract so when you sign for example with the National Theatre contract you often have to commit to an entire season which is 12 months and you have to take everything which is problematic at times because lets say for example your therefore are committed to a Romeo and Juliet screening in 9 months down the line when you don't know what your public program will be and when you

come up to the time to program that you want to book a film often its written into agreement 'all shows' for example if I want to show the new James Bond I have to give Sony every single slot available if I have already contractually committed to 1 screening of Romeo and Juliet that gets muddy.

G: perfect I didn't know about that, sometimes there's exclusivity isn't there?

S: yes often these things can be rolled out exclusively on price The National Theatre dictate what the minimum price will be, part of it is making sure they make their money of course but its building the contract, it's about maintaining the value of the product, that it's a higher calibre than film, I think they want to keep that impression of the product so which is why they are normally £12-£14 something like that, so it is nice for an exhibitor and you do get an extra cut I think that 45% goes back to the distributor and everything else stays with the exhibitor which is interesting you mention about Secret Cinema which is why whenever there's a Secret Cinema screening thing like Back to the Future ends up in the top 10 highest grossing of that week because the distributor of Back to the Future for doing almost no work gets a phenomenal amount of money from the ticket split that Secret Cinema made because it's a £20 ticket or whatever

4. **Audience reception: etiquette, learning experience, feeling of 'being there'**

G: ok, so I will keep moving on to keep the time down, audience reception, so you mentioned etiquette and they came in DJs and stood up and clapped and that sort of thing, I have sort have put this down as etiquette a learning experience a feeling of 'being there', what have you seen over time that was the first one that you did which was Othello, have you seen it change have you seen people learn an etiquette or change behaviours is it still DJs?

S: I think it's not as novel to a lot of people, there is a lot of people who come will see most shows and it's starting to be treated more like a cinema audience in that they will just leave at the end and not clapping as much which is a shame but it is still very much enjoyed and accessibility is I think one of the biggest appeals.

G: National Theatre leave it absolutely bare with virtually no comparing whereas the Royal Opera House splash almost a little too much of the comparing interviews and that sort of thing. The BP open air screens are handled very very well in audience participation they really whip them up. Right so your answer to that one is that you

have seen it go down from 'I don't know what to expect' to 'I'm used to this now' and 'I'm coming because', 'I'm coming because' is the next question

5. Audience reason for attendance: cost, convenience, close enough to 'being there'

G: Audience reason for attendance I've got things like cost, convenience, close enough to 'being there' it gives a semblance of the live theatre and its close enough that I'll do that and it's a bit more special than seeing an encore or seeing a video, a CD a DVD, what's your understanding of audience reason for attendance?

S: I think exactly as you have described only the affordability thing it's not that it's necessarily affordable in the first place it makes it plausible you can't go and see Helen Mirren in The Audience unless you can get a train to London, spend the night stay over all of this content is not accessible to the vast majority of people whereas for £14 and a bus journey you can come to your local cinema and see it, so I think it's not about cost for a lot of people it not even possible if it's not live screened so this is why I was such a big advocate to get it at the cinema it makes is so much less 'Londonised' brings it out to the world it's great.

G: it's a democratisation of it

6. Add-ons: do add-ons make a difference? E.g. programs, social media links, compare, interviews, backstage/behind the scenes

G: going on to what I was alluding the add-ons, so for example the Royal Opera House will have an online programme that you can download, there will be loads of social media links you can see your comments up on the screen, there's a compere, there's interviews, there's backstage behind the scenes kind of thing have you seen any of these yourself do you think they make a difference, what add-ons do you know of?

S: including content on the screen the introduction, you will have a host it's only RSC you will often have a celebrity in the Globe to introduce it, I think that's nice I think that adds to the audience appeal of it, frequently the RSC will do behind the scenes content during the intermission which actually affords most people an opportunity to get a drink and go to the toilet, I don't see that it adding any value to the audience, some of it is nice stuff that I have seen but I do often see it frequently ignored and dismissed which is a shame. I have seen the tweets when people can live tweet their questions in, I think that's quite fun again I just think these are novelties I don't think you need it, you are not getting any extra people going because of these elements.

G: well you see reason I press on add-ons is I suspect there is a trick being missed because the likes of Secret Cinema is all about the add-ons it's all about getting your booklet or whatever it is beforehand finding out your character and it's all about the add-ons, I think there is something that can be done there and BP managed to do this really well with their large scale outdoor events.

7. What did you do to encourage uptake?

G: what did you do to encourage the uptake of Event Cinema because you said it was something that was very important to you to push for?

S: we didn't have to do much is the honest truth which what was so great about it, we only shared it on our mailing lists like we would with any other content and we were always quite fortunate enough to get great audience numbers for it, they started to dwindle as it spread out a little bit more wide stream I know the multiplexes took it on after us and now it's a bit more common place, we didn't have to do anything for it, other places would multiplexes might have to theme it a bit more but I think at the Electric particularly we were privileged that it already feels like a theatre and already feels like that highbrow sort of place and suited it well.

G: it does, that is an interesting comment you make because I have seen event cinema both in a multiplex type cinema and also in a theatre space and it's really quite unusual it gives you a slightly different dynamic it's quite interesting having the actual seating of a theatre to watch that. Well here is a comment back at you, you are now associated with Birmingham City Council, you have got 25 spaces that you have got to manage, you have got access to mailing lists there used to be about 50,000 people associated with Birmingham City Council alone all the library people you must have the most amazing potential on mailing lists, do you think you might do a bit of event cinema at the Rep or the library?

S: I think almost certainly, I think that kind of been quite a big appeal for me on paper why I was employed, I think that for the future, the commercial element of the Rep and the library who I work for now there is a big sort of prospect on being unique and doing different things and being able to explore cinema in these spaces would be a great thing that I would definitely be happy to do.

G: I think it would be very interesting I would go to it I'm already interested in doing that.

8. Current turnover globally moving towards \$1b. What do you think is the future for event cinema?

G: here is a 'what if' for the future, my current reading is that turnover globally is moving towards \$1b for event cinema, what do you think is the future for event cinema is?

S: I think with video on demand, Netflix, Amazon Film and access to content earlier and a particular pressure on distributors to release films on those platforms much much sooner from any cinema release I think event cinema is going to grow and grow, I think conventional cinema may start to struggle as a generation beneath us who aren't used to going to the cinema every weekend are just bought up on sitting at home and streaming these movies and being able to wait only 3 or 4 weeks until they are available in some cases I think cinema itself will struggle and so exhibitors will have to get creative and things like event cinema and making sure that's the only thing they can deliver that you definitely cannot get at home will be the only way to get people in so I think it will grow and grow.

G: fantastic point because what you are saying there is cultural conditioning

S: yes

G: and it's a real future threat to cinema as we see it at the moment and yes instead of doing a film I know myself that Amazon and Netflix have taken stuff that was going to be formal films or films rejected and done fantastic things with it

S: absolutely

G: so yes from a cultural conditioning point of view and also from a supplier point view there is going to be future challenge, one of the comments I read in AEA Consulting's report is that they felt that event cinema as far as they could tell to date had probably peaked in terms of saturation and audience, I think I counted something like 50 odd event cinemas things on across the year, if you look at all the different venues the multiplexes, the individuals and the larger and smaller things which are on like the Bolshoi and New York Met and all those sort of things, there's in the order of 50 or 60 event cinema pieces available and they are saying possible saturation point there, do you think so?

S: I think so to a degree it would be, we've certainly started to see that when there was so much content from the RSC for example coming out it became less unique, we learnt at the cinema that if you do a wine tasting every month people won't make a special

effort because they think oh well it might be more convenient next month so I will wait, I think the same is true with event cinema where you have got so much content it is normalised for people and they just can skip it and see the next one, there is an element of truth there for conventional event cinema that it might peak, I don't see it disappearing by any sense but I think we will see event cinema more like Secret Cinema and outdoor screenings and creative ways of exhibition and I think that will grow and grow

G: we I think you are putting together a marketing plan for the library and Rep there

S: I think so too

G: have a look at the BP live event piece because I think you have probably got all the facilities that you need to be able to put on a BP live screening event and they are always looking for new ones, the nearest one is Warwick University

S: oh I see ok that is interesting

G: the only thing that they have got is outdoor speakers and a digital screen that plays onto their plaza

S: oh I see, well we can trump that

G: well I am pretty certain you could, so have a look at the BP thing because I would really really like to have a BP outdoor event cinema thing at the library or in Centenary Square kind of area, I think it would be amazing

S: great, well watch this space

G: fantastic, the other thing on future that I can pass on from my research is while the number of events may have sort of lessened that might be if you go to 100, 200 you are not going to get any more out of it because that audience at the moment is saturated, there are many different types of event cinema that you can put on, so they put on the Cliff Richard concert, so you have got one off concerts so you have got different audiences again, sporting events, gaming – gaming is massive, I was staggered when I looked at the stats, gaming is worth 3 times the combined income of film, TV and theatre put together.

S: wow I can definitely believe it, we have screened League of Legions international finales and it sold out quicker than everything we have done, hundreds of people came we could have sold it multiple times over.

G: its massive so again look at that whole range and see for the Rep and whatever, you do a live screening of a gaming event I think you are going to get more people than for

anything else, so I think there are different audiences that you can encourage to event screening and also globally it has hardly scratched the surface in China where they are putting in something like 300 new digital cinemas a month around China it's some crazy number like that so the technology is there and I think it can grow if they start using different types of events and you look at a different demographic for that

S: I agree

G: well I look forward to seeing what happens at the library and the Rep and seeing your signature all over it

S: let me get on top of what I have got to do with the events first and yes watch this space that would be nice if we would be able to do it.

G: do you want me to send you the link for the BP stuff?

S: I have just pulled it up actually as we were talking it looks very interesting, I am certainly going to keep that with me

G: fantastic, I think you could do awesome stuff with all of that, so that's half an hour and I would like to say thank you very very much for your help, tip top comment on the cultural conditioning with Netflix and the downloads that's a fascinating insight which I had no idea about and I think this has been really valuable to support the arguments I am putting together

S: excellent glad to hear it, nice

G: so that's the end of it thank you ever so much

S: nice one, no problem at all Greg, good luck with you're the whole presentation and I hope it goes well.

G: thank you very much

8.2 Google Alerts Data

The following table represents a tally of digital culture news alerts collated between 2012 and 2020.

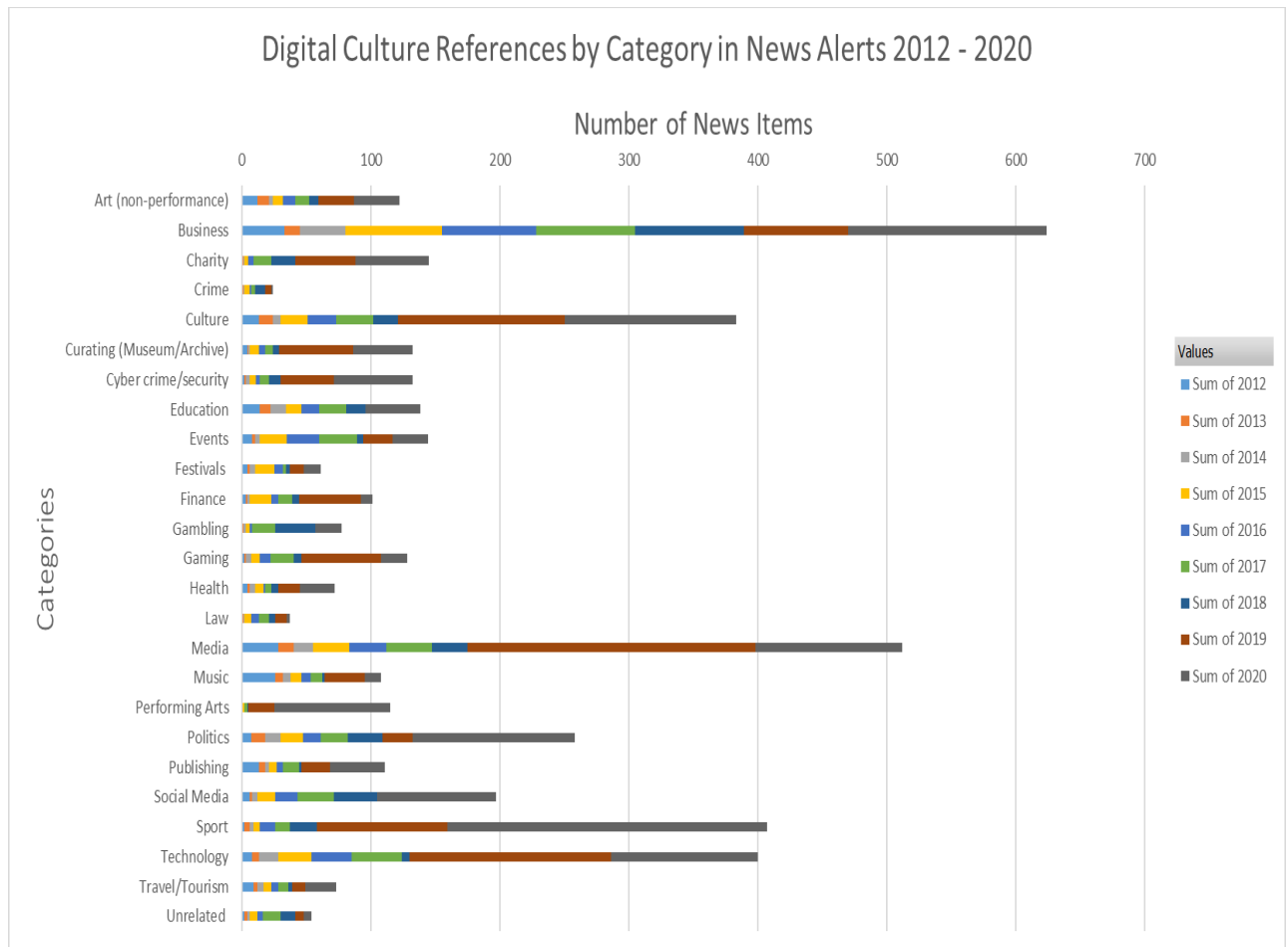


Figure 40: Digital Culture news alerts 2012 – 2020. © Greg Marshall

Analysis of the news alerts for digital culture between 2012 and 2020 indicates a consistency that business, media, politics, technology and social media create most news items. There was a change over time in the volume of results. In 2012 an alert was received every other day, with an average of 2.1 news items per alert. By 2020 there was an alert message every day, with an average of 4.5 news items per alert message. This increase was due in part to the renaming of the Department for Culture, Media and Sport to the Department for Digital, Culture, Media and Sport created in July 2017. An increase in news alerts was seen associated with this government department. Bias towards politics was adjusted for by removing

departmental specific news alerts such as ministerial placements. The department itself was involved in many arts, charity, media and technology related news items.

Categories:	Overall	2012	2013	2014	2015	2016	2017	2018
DC Performing Arts	5	0	0	0	2	0	2	1
Festivals	35	4	2	4	15	7	2	3
Curating (Museum/Archive)	36	4	1	1	7	5	6	5
Business	394	33	12	35	75	73	77	84
Media	172	28	12	15	28	29	35	28
Politics	147	7	11	12	17	14	21	27
Education	98	14	8	12	12	14	21	15
Crime	19	0	1	1	4	1	3	8
Finance	58	3	1	2	17	5	11	5
Culture	129	13	11	6	21	22	29	19
Art (non-performance)	48	12	9	3	8	9	11	7
Events	76	8	2	4	21	25	29	5
Gambling	68	0	1	2	3	2	18	31
Sport	79	2	4	3	5	12	11	21
Unrelated	47	2	2	2	6	4	14	11
Music	54	26	6	6	8	7	9	2
Travel/Tourism	38	9	3	5	6	5	8	3
Gaming	42	2	1	4	7	8	18	6
Technology	135	8	5	15	26	31	39	6
Charity	42	0	1	1	3	4	14	18
Law	26	0	1	1	5	6	8	5
Publishing	41	13	5	3	6	5	12	2
Social Media	108	6	2	4	14	17	28	34
Cybercrime/security	44	2	1	3	5	3	7	9
Health	26	4	2	4	7	1	5	5

8.3 Venue Types Visited in Field Research

- 18th Century Italian Opera House
- Backstage at a Repertory Theatre
- Brutalist Theatre
- Caravans
- Cinema
- Concert Hall
- Converted Office Space
- Converted Town Hall
- Derelict Basement of Repurposed Town Hall
- Edwardian House

- Elizabethan Indoor Candle Lit Theatre Space
- Elizabethan Open Air Theatre
- Escape Rooms
- Exhibition Space
- Live Stream Webcast
- Military Parade Ground
- Oldest Purpose Built Cinema in UK
- Open Air Riverside
- Original Music Hall
- Public Park
- Public Square
- Railway Station
- Regional Receiving Theatre
- Restored Victorian Theatre
- Studio Theatre
- University Theatre Space
- West End Theatre

8.4 Performance Genres investigated in Field Research

- Aerial Theatre
- Aerial Trapeze, Acrobats, Bell Ringers, Dancers
- Circus
- Classical Ballet
- Close Quarter Encounter Immersive
- Comedy Play
- Concert
- Conference
- Contemporary dance
- Contemporary Mime
- Contemporary Play
- Exhibition
- Hypnotist
- Immersive Challenge
- Immersive Site Specific
- Irish Dance
- Japanese Drummers
- Live Screening
- Musical
- One Person Show
- Open Air Theatre
- Opera
- Physical Theatre

- Podcast
- Promenade Installation
- Proms
- Public Open Air Immersive
- Puppetry
- Shakespeare
- WebCast

8.5 Actual performances investigated in Field Research

Date/Performance	Venue	Date
May 2012		
<i>Wings of Desire</i>	Victoria Square, Birmingham	19/05/2012
June 2012		
<i>The Voyage</i>	Victoria Square, Birmingham	22/06/2012
November 2012		
<i>Batsheva Ensemble with Deca Dance</i>	Hippodrome, Birmingham	13/11/2012
<i>La Bohème</i> – WNO	Hippodrome, Birmingham	10/11/2012
February 2013		
<i>Les Ballets Trockadero de Monte Carlo</i>	Hippodrome, Birmingham	01/02/2013
<i>Sleeping Beauty</i> – Matthew Bourne	Hippodrome, Birmingham	09/02/2013
March 2013		
<i>The Cunning Little Vixen</i> , WNO, Leoš Janáček,	Hippodrome, Birmingham	07/03/2013
September 2013		
<i>EAT!</i>	4 Squares Festival, Birmingham	07/09/2013
<i>As the World Tipped</i> –Wired Aerial Theatre	Victoria Square, Birmingham	07/09/2013
August 2014		

Edinburgh Fringe

El Britanico – Alex Brockie theSpace on the Mile, 11-16/08/2014
Edinburgh

Smoking Ban -RedBellyBlack Traverse Theatre, 11/08/2014
Productions, Kate Goodfellow Edinburgh

The Decline and Fall of Marcus Distilius - The Revolving Shed theSpace on North Bridge, 12/08/2014
Edinburgh

Jim - Spaghetti Productions theSpace @ Jury's Inn, 13/08/2014
Edinburgh

AhhGee Podcast Live - AhhGee Productions theSpace @ Jury's Inn, 14/08/2014
Edinburgh

September 2014

Avenue Q The New Alexander 20/09/2014
Theatre, Birmingham

Cats Hippodrome, Birmingham 27/09/2014

November 2014

Rambert Triple Bill – Triptych, Saddlers Wells, London 19/11/2014
Ashley Page's Subterrain, Mark
Baldwin's new The Strange Charm
of Mother Nature, Shobana
Jeyasingh's Terra Incognita

December 2014

Alice in Wonderland - Royal Ballet Empire Cinema, Bromely 16/12/2014
Live

A Picture of Dorian Grey - The Greenwich Edwardian 18/12/2014
Alchemic Order House, London

January 2015

Richard Alston Dance company Saddlers Wells, London 27/01/2015
Quadruple Bill Cantata Rejoice in
the Lamb, Burning, Madcap ,
Nomadic

Swan Lake - Russian State Ballet of Churchill Theatre, 13/01/2015
Serbia Bromley

Coppelia - Russian State Ballet of Churchill Theatre, 14/01/2015
Serbia Bromley

<i>La Traviata</i> – Opera North	Opera house, Leeds	22/01/2015
<i>The Tree</i> - Daniel Kitson	The Old Vic, London	20/01/2015
February 2015		
<i>Miss Saigon</i>	Prince Edward Theatre, London	10/02/2015
<i>The Digital Echoes Symposium</i>	Coventry University	04/02/2015
<i>Charlie and the Chocolate Factory</i>	Theatre Royal Drury Lane, London	03/02/2015
<i>Peter Pan Goes Wrong</i>	Churchill Theatre, Bromley	11/02/2015
<i>Acadia</i>	Churchill Theatre, Bromley	25/02/2015
<i>Moving Stateside, Serenade, Lyric Pieces, In the Upper Room</i> - Birmingham Royal Ballet	Hippodrome, Birmingham	18/02/2015
<i>Anything Goes</i>	Churchill Theatre, Bromley	23/02/2015
March 2015		
<i>Dreaming in Code</i> - 2Faced Dance Company	Patrick Centre, Birmingham	06/03/2015
<i>Shakespeare in Love</i>	Noel Coward Theatre, London	04/03/2015
<i>ENB Modern Masters – Petit Mort, Spring and Fall, In the middle somewhat elevated</i>	Sadler's Wells, London	12/03/2015
<i>Top Hat</i>	Hippodrome, Birmingham	19/03/2015
<i>The Nether</i>	Duke Of York's Theatre, London	11/03/2015
April 2015		
<i>Jersey Boys</i>	The Piccadilly, London	01/04/2015
<i>39 Steps</i>	Criterion Theatre, London	28/04/2015
<i>Ivan Le Terrible</i> - Bolshoi Ballet Live	The Electric Cinema, Birmingham	19/04/2015
May 2015		
<i>Yamato Drummers of Japan</i>	Churchill Theatre, Bromley	06/05/2015

<i>Oh what a Lovely War</i>	The Rep, Birmingham	08/05/2015
<i>Sister Act</i>	The Crescent Theatre, Birmingham	09/05/2015
<i>BE Festival</i>	The Rep, Birmingham	01/05/2015
<i>Innovation at work</i>	Direct Line Best Space, Bromley	20/05/2015
<i>The Curious Incident of the Dog in the Night</i>	Hippodrome, Birmingham	29/05/2015
June 2015		
<i>Lord of the Dance - Dangerous Games</i>	Dominion Theatre, London	03/06/2015
<i>Innovation and Disruption in a Vacuum Market</i> - Will King - King of Shaves	Direct Line Best Space, Bromley	10/06/2015
<i>Elvis at the O2</i>	O2 Exhibition Space, London	16/06/2015
<i>As you Like it</i> - RSC	Globe, London	21/06/2015
<i>Live Theatre Broadcast Symposium</i>	Department of Theatre, Film and Television University of York	25/06/2015
July 2015		
<i>Measure for Measure</i> - RSC	Globe Theatre, London	15/07/2015
<i>Carmen</i> - Eno	Empire Cinema, Bromley	01/07/2015
<i>The Four Fridas</i>	Greenwich Arsenal	03/07/2015
<i>East is East</i>	Churchill Theatre, Bromley	07/07/2015
<i>Barnum</i>	Hippodrome, Birmingham	24/07/2015
August 2015		
<i>Mack and Mabel</i>	Festival Theatre, Chichester	04/08/2015
<i>The Book of Mormon</i>	Prince of Wales Theatre, London	24/08/2015
The Proms - Britten, Raymond Yiu, Nielsen & Janáček	Royal Albert Hall, London	25/08/2015

<i>The Proms</i> - Danish National Symphony Orchestra	Royal Albert Hall, London	20/08/2015
September 2015		
<i>The Proms</i> – Messiaen, Mozart & Bruckner	Royal Albert Hall, London	02/09/2015
<i>The Proms</i> – Neilson & Ives	Royal Albert Hall, London	09/09/2015
<i>Future conditional</i>	The Old Vic, London	01/09/2015
<i>Absent</i>	Town Hall Basement, Shoreditch	13/09/2015
<i>Love Me Tender</i>	New Victoria Theatre, Woking	11/09/2015
<i>The autonomous customer - eight global consumer trends in 2015</i> - Dr Nicola Millard, Futurologist at BT	Direct Line Best Space, Bromley	21/09/2015
<i>Puttin' on the Ritz</i>	Churchill Theatre, Bromley	18/09/2015
<i>Best of British</i>	Symphony Hall, Birmingham	20/09/2015
<i>RB Romeo and Juliet ROH</i>	Royal Opera House	19/09/2015
<i>Maudits Sonnants</i> - Transe Express company	Centenary Square, Birmingham	26/09/2015
<i>Spurting Man</i> – Riverside Festival	Southbank, London	06/09/2015
October 2015		
<i>Matilda</i>	Cambridge Theatre London	05/10/2015
<i>Kinky Boots</i>	Adelphi Theatre, London	29/10/2015
<i>Gypsy</i>	Savoy Theatre, London	21/10/2015
November 2015		
<i>Winters Tale</i> – Branagh Theatre Live, Live Screening	Picture House, Greenwich	26/11/2015
January 2016		
<i>Horror</i> - Jakop Ahlbom Company	Peacock Theatre, London	26/01/2016
<i>Ockham's Razor</i> - Tipping Point	Platform Theatre, London	11/01/2016

February 2016		
<i>Miss Saigon</i>	Prince Edward Theatre, London	27/02/2016
<i>Single Spies</i> – Alan Bennett	The Rep, Birmingham	23/02/2016
<i>The Digital Echoes Symposium</i>	Coventry University	04/03/2016
March 2016		
<i>X</i>	Royal Court Theatre, London	30/03/2016
<i>Cinderella</i> - Vienna Festival Ballet	Stag Theatre, Sevenoaks	24/03/2016
May 2016		
<i>Political Mother</i> – Hofesh Shechter	The Rep, Birmingham	13/05/2016
<i>The Machine Show</i>	Centenary Square, Birmingham	14/05/2016
<i>Jekyll and Hyde</i>	The Old Vic, London	24/05/2016
June 2016		
<i>The Flying Lovers of Vitebsk</i>	Wanamaker Theatre	16/06/2016
<i>Seek/Find</i>	Canon Hill Park, Birmingham	18/06/2016
<i>Kiss Me Kate</i>	The Thorndike Theatre, Leatherhead	15/06/2016
<i>Guys and Dolls</i>	The Phoenix Theatre, London	28/06/2016
July 2016		
<i>Chroma, Revelations and Takadame</i> –Alvin Ailey American Dance Theatre, Encore screening from Lincoln Centre	Picture House, Greenwich	6/07/2016
August 2016		
<i>In the Heights</i>	Kings Cross Theatre, London	16/08/2016
October 2016		
<i>Snow White</i> - Vienna Festival Ballet	Artrix, Bromsgrove	16/10/2016
November 2016		

<i>Fiddler on the Roof</i>	Churchill Theatre, Bromley	15/11/2016
<i>Little Match Girl</i>	Wanamaker Theatre, London	24/11/2016
<i>A Pacifist's Guide to the War on Cancer</i>	Dorfman Theatre, London	01/11/2016
<i>The Singing Hypnotist</i>	Wilton's Music Hall, London	17/11/2016
December 2016		
<i>Art</i>	The Old Vic, London	10/12/2016
Jan 2017		
<i>The Tempest</i>	Royal Shakespeare Theatre, Stratford-upon-Avon	11/01/2017
February 2017		
<i>The Red Shoes</i>	Hippodrome, Birmingham	07/02/2017
March 2017		
<i>Ugly Lies the Bones</i>	Lyttelton Theatre, London	02/03/2017
<i>Hedda Gabler</i>	Lyttelton Theatre, live screening Electric Cinema	09/03/2017
<i>The Time Machine</i>	Escape Room, Birmingham	21/03/2017
<i>The Commitments</i>	New Alexandra Theatre, Birmingham	17/03/2017
April 2017		
<i>Copacabana</i>	Tyne Theatre and Opera House, Newcastle Upon Tyne	08/04/2017
May 2017		
<i>Concerto, Orchestra e Coro dell'Arena di Verona, Antonín Dvorák, Sinfonia n. 9 op.95 in mi minore Dal Nuovo Mondo, Maurice Ravel, Rapsodie Espagnole, Daphnis et Chloé: Fragments Symphoniques, Suite n.2</i>	Teatro Filarmonico, Verona, Italy	06/05/2017
<i>An American in Paris</i>	Dominion Theatre, London	17/05/2017

<i>The Vertiginous Thrill of Exactitude</i> , Tarantella / Strapless / Symphonic Dances – Royal Ballet Company Triple Bill	Royal Opera House, London	24/05/2017
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<i>Milonga</i>	Hippodrome, Birmingham	27/05/2017
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<i>On The Town</i>	Regents Park Open Air Theatre, London	30/05/2017
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<i>Life of Galileo</i>	The Young Vic, London	31/05/2017
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June 2017

<i>Who's Afraid of Virginia Woolf?</i> , NT Live encore – Did not run	The Electric Cinema, Birmingham	03/06/2017
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<i>Wonder Woman 4DX</i>	Cineworld, Birmingham	04/06/2017
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<i>Alice's Adventures Underground</i>	The Vaults, London	06/06/2017
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<i>Out of Order</i>	Churchill Theatre, Bromley	21/06/2017
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<i>Three Short Story Ballets: Le Baiser de la Fée, Pineapple Poll, Arcadia, BRB</i>	Hippodrome, Birmingham	24/06/2017
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<i>Space Spectacular: Star Wars and Beyond</i>	Symphony Hall, Birmingham	25/06/2017
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<i>Holy Crap, The Musical</i>	The Kings Head Theatre Pub, London	28/06/2017
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July 2017

<i>Alice's Adventures Underground</i>	The Vaults, London	01/07/2017
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<i>Mumburger</i>	The Old Red Lion Theatre Pub, London	05/07/2017
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<i>The Royal Ballet: Wolf Works</i>	Live Screening BBC 4	09/07/2017
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<i>42nd Street</i>	Theatre Royal, Dury Lane	11/07/2017
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<i>Applause</i>	Arts Educational, Chiswick	13/07/2017
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<i>ROH:LiveTurandot</i>	BP Youtube and outdoor	14/07/2017
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<i>First Night of the Proms</i>	BBC TV live Screening	14/07/2017
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<i>Road</i>	Royal Court Theatre, Sloane Square, London	26/07/2017
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<i>Angels in America, NT Live Screening</i>	Cineworld, Bromley	27/07/2017
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August 2017		
Prom 24: Esa-Pekka Salonen conducts John Adams	Royal Albert Hall, London	02/08/2017
The Wedding Singer	Churchill Theatre, Bromley	03/08/2017
Prom 40: Brahms, Berg, Larcher and Schumann,	Royal Albert Hall, London	15/08/2017
Live Stand up Comedy	The Camden Head, London	16/08/2017
September 2017		
Birmingham Weekender Events attended below;	Birmingham	23/09/17
Birmingham Royal Ballet presents Ballet in the Bullring	The Bullring	23/09/17
Harminder the puppet elephant	Walking around town	23/09/17
Lorraine Bowen Pop up performances on-board trams	Birmingham Trams	23/09/17
Orbis by Humanhood	Outside New St Station	23/09/17
Kathakali and Yakshagana dancers	Victoria Square	23/09/17
October 2017		
Acosta Danza	Hippodrome, Birmingham	20/10/17
Delayed	The Artix, Bromsgrove	22/10/17
Jack the Ripper Tour	Whitechapel, London	23/10/17
November 2017		
Guys and Dolls	The Crescent Theatre	16/11/17
Sunset Boulevard	Hippodrome, Birmingham	17/11/17
December 2017		
NT Live Young Marx	Cineworld Birmingham	07/12/17
January 2018		
Cinderella Pantomime	Hippodrome, Birmingham	06/01/18
Sam's Saloon	Escape Room, Sutton Coldfield	07/01/18
February 2018		
Matthew Bourne's Cinderella	Hippodrome, Birmingham	06/02/18

<i>Amadeus 2018</i>	National Theatre, London	09/02/18
<i>Interactive Arcade</i>	Four Thieves, Clapham	23/02/18
<i>Winter's Tale – Branagh Theatre Live, Live Screening</i>	Odeon, Beckenham	28/02/18

March 2018

<i>Lady Windermere's Fan, Live Screening</i>	Odeon, Beckenham	20/03/18
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April 2018

<i>Love Bites</i>	The White Bear, London	03/04/18
<i>Secret Life of Human Kind</i>	New Diorama	10/04/18
<i>Love Bites</i>	The White Bear, London	18/04/18
<i>Shit-faced Shakespeare</i>	Leicester Square Theatre	20/04/18

May 2018

<i>Il cappello di paglia di Firenze</i>	Teatro di San Carlo, Naples	12/05/18
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June 2018

<i>Cie Gilles Jobin & Artanim</i>	Hippodrome, Birmingham	01/06/18
<i>Atomos Company Wayne McGregor</i>	New Alexandra Theatre	01/06/18
<i>Bill Burr</i>	Royal Albert Hall, London	06/06/18
<i>Air Grande Phrase</i>	Victoria Square, Birmingham	09/06/18
<i>Dedicated to (International Weekend)</i>	Victoria Square, Birmingham	09/06/18
<i>Bolero</i>	Victoria Square, Birmingham	09/06/18
<i>Roll Up Roll Up – Simple Cypher</i>	Victoria Square, Birmingham	09/06/18

8.6 Alternative Genres of virtual reality in performing arts

Examples of A.I. in the real world include films such as *2001: A Space Odyssey* (1968) where the HAL 9000 is an intelligent control system which takes control and kills the human occupants in the space ship and further in *2010* (1984) the SAL 9000 has a similar malfunction. *Blade Runner* (1982) was the definitive film which uses human like robots with self-awareness though the catch in *Blade Runner* is that the self-aware robots did not know they were not human. Good films where artificial intelligence encroaches on the real world include *War Games* (1983), *Electric Dreams* (1984), *Bicentennial Man* (1999) and *I Robot* (2004). Of course there is the *Terminator* series (1984) which have an overriding controlling organisation called Skynet which becomes self-aware and of course wishes to get rid of human kind. *The Terminator* series, *Bicentennial Man*, *I Robot*, *A.I. Artificial Intelligence* (2001) and *Ex Machina* (2015) are interesting versions of artificial intelligence within a human form where the artificial intelligence displays further human or anthropomorphism features which includes a moral code and ethical standards. In the last five examples they were asked by the director to have an empathy with robot protagonists (IMDb, Movies, TV and Celebrities, 1990).

Popular media regularly use transformation in virtual environments or simulation in real environments. In *The Matrix* trilogy (1999, 2003, 2003) and *The Matrix 4* (2022) Neo from the real world to the virtual environment of the Matrix to become 'The One'. A religious story in reverse when the flesh becomes immaterial and man makes a superior being. In the Matrix ones identity is known as the residual self image (RSI) which is the subjective appearance of a human while connected to the Matrix. It is not made clear in the film but the RSA can be affected by the individual, the jacking in process, the station operator and the virtual environment in which the individual finds themselves. Neo's actions appear super human in the Matrix but can have consequences outside in the real world. Baudrillard's *Simulacra and Simulation* is so important to the directors of *The Matrix* that actors were given copies to read before the film and the book is even shown in the first film.

In *Vice* (2015) a futuristic resort allows guest to live out their fantasies no matter how violent or deviant without any consequences. These fantasies are acted out on sophisticated androids known as 'artificials'. However, due to a malfunction one sees all her past memories and becomes self-aware but knows she is not human. In *Surrogates* (2009) people remotely control idealised versions of themselves as androids known as surrogates and can enjoy life

free from pain and injury from the safety of their own home. Use of a surrogate becomes as common as using a mobile phone and the surrogates are put on charge overnight.

The idea of androids is not new, some are not aware they are androids as in *Blade Runner* (1989) and *Blade Runner 2049* (2017). While in *Star Trek, The Next Generation* (1987) Data is a self-aware android who wishes to be more human. He develops over the franchise much like Pinocchio becoming a real boy. In *Star Trek* we also meet a race of technologically enhanced beings known as ‘the Borg’ who assimilate other races using nanotechnology. They operate through a hive mind controlled by the Borg Queen. In *Avatar* (2009) and in planned future releases of *Avatar 2* (2021), *Avatar 3* (2023), *Avatar 4* (2025) and *Avatar 5* (2027) the remotely controlled, genetically engineered artificial bodies are used by the human characters to interact with the natives of a remote planet. In this film, the disabled human operator transfers his consciousness into the avatar he controls and becomes a native of the planet.

8.7 Digital Gaming

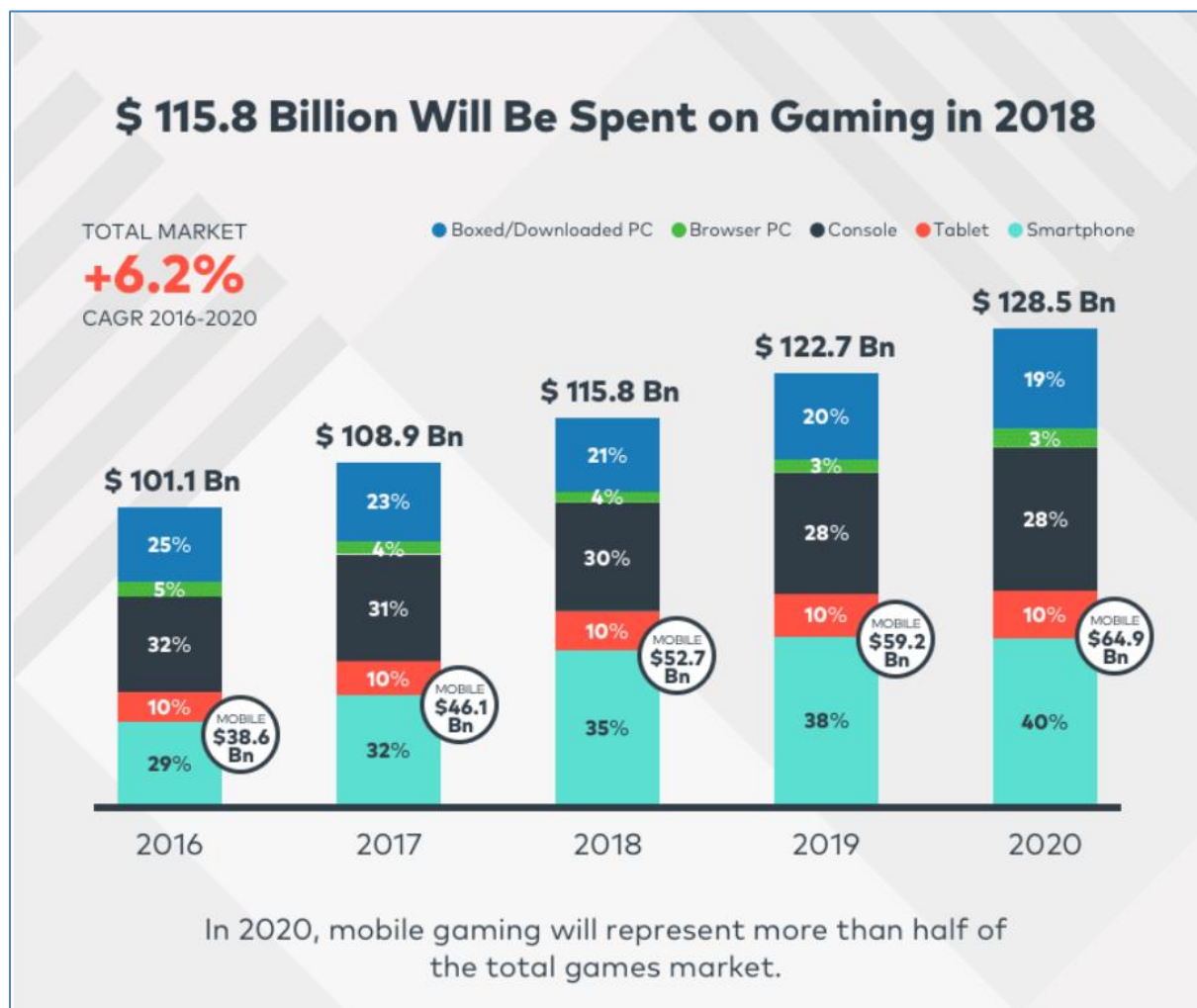


Figure 41: Digital Video Game Trends and Stats for 2018 (Brown 2018) © Liza Brown (Courtesy of Liza Brown)

Digital video games have an exceptional global revenue projected to be nearly \$130 billion by 2020 (Brown 2018). Compare this with the global film industry which show projections forecast to increase from about 38 billion U.S. dollars in 2016 to nearly \$50 billion by in 2020. (Facts 2018). Film is passive while gaming is immersive, participatory, social and interactive. It is also interesting that over 2 billion people play video games worldwide as a participatory activity (Brown 2018) while 100m users will access video on demand on a daily basis (Blog 2018).



Figure 42: Digital Video Game Trends and Stats for 2018 (Brown 2018) © Liza Brown (Courtesy of Liza Brown)

8.8 Ethical Approval Application

With regard to the procedural aspect of the ethical guidelines an overseeing ethics committee authorises the ethical approach used in this research to ensure that there is no misuse of information, permission and interests of all those involved in the study are considered, plagiarism is avoided, other forms of academic misconduct such as falsifying data or colluding with other researchers, and ethical misconduct such as failure to obtain ethical approval for or observe the university ethical principles.

The procedures for gaining ethical approval, applying ethical principles, gaining subject consent and the consequences of academic and ethical misconduct are fully declared by the ethical approval committee at the University of Wolverhampton and for this research thesis all ethical approval have been sought and gained. (See Appendix 9.8 Ethical Approval Application)

In this research particular care has been taken with the handling of personal data and storage in so far as interview material was gathered and stored. With regard to survey data anonymity was maintained using prior surveys from NESTA and others.

Intellectual property rights are an important issue when dealing with performing arts as all public material will both have intellectual property rights and copyright for video, photograph and audio based artefacts. Therefore this research used public domain artefacts and credited the source of that material.

With regard to legal liabilities and responsibilities the name and relationship to the subject material of interview candidates was collected first hand and was thus accurate, its use being fully declared and authorised using a consent form by the participant. As no information regarding ethnic background, political opinions, religious beliefs, sexual orientation or criminal records were used the data protection act of 1998 does not apply.

The Faculty of Arts
Ethics Submission 2017/18: Postgraduate Research Degrees and Staff
Research

1. Before completing this form you must refer to the latest ethical guidelines, which can be found on the Research Policy Unit's web pages <https://www.wlv.ac.uk/research/about-our-research/policies-and-ethics/ethics-guidance>
2. Please give sufficient information so that the Ethics Committee can make an informed decision. Remember that the members of the Ethics Committee might not be conversant with your topic of research, so be as clear as you can and avoid specialist jargon.
3. Once you have completed this form please Email it directly to the current Chair of the Faculty Ethics Committee – Dr Stephen Jacobs S.Jacobs@wlv.ac.uk . Indicate in the subject box of the Email 'Ethical Approval Request'.
4. Once the Chair has received your request for ethical approval it will be forwarded to the Committee for feedback.
5. You should receive a decision and feedback within three weeks of sending the request.
6. Possible outcomes are:
 - a. Approved
 - b. Approved subject to conditions
 - c. Declined
7. Ethical approval is only given for the details of the research provided on the form. If you make any major changes to the research aims or methodology you will have to make another application for ethical approval.
8. If you have any questions do not hesitate to get in touch with the relevant Departmental Representative on the Ethics Committee or the Chair of the Faculty Ethics Committee.

SECTION ONE

Date
22/05/2018

Number
2018/1

Name & Contact Details	
First name	Greg
Marshall	
University Email address	Greg.marshall@wlv.ac.uk
Student number (if applicable)	0525304

Level of Research: Indicate all relevant	
	✓
Academic Staff	
Postgraduate research student	
MPhil	
PhD	✓
Post-doctoral	

DoS or PI: Name where relevant	
Name of Director of Studies	Dr Denise Doyle
Name of Principle Researcher	

Subject area (indicate all relevant)	
	✓
Science and Engineering	
Computing	
Health and Well Being	
Education	
Business	
Social Sciences	
Sports	
Media	
Humanities	
Arts	✓
Other (specify)	

Research Centre (indicate all relevant)	
	✓
Centre for Art, Design, Research and Experimentation	✓
Centre for Film, Media, Discourse and Culture	
Centre for Transnational and Transcultural Research	
Centre for Creativity, History and Identity in Performance	
Other (specify)	

SECTION TWO

i	Full Title of Project
	Live Theatre in a Digital Context

ii	Ethical Category
	✓
	Category D
	Category A
	Category B

iii	Give a brief summary of your research project indicating your rationale and aims
	<p>This research project investigates how digital culture informs live theatre in terms of immersion, identity and the emergent aesthetic of event cinema.</p> <p>With digital culture anecdotally consuming much of our time and attention and being <u>the major focus of business and academic research</u> I wish to understand if and how this is reflected in the world of live theatrical performance.</p> <p>This research aims to highlight the gaps in performance theory, gaps in theoretical models and proposes a new model for understanding identity for live theatre in a digital context.</p> <p style="text-align: right;">Expand as necessary</p>

iv	Methodology: How will your research be conducted?
	<p>I intend to use a combination of observation and interview, field research and case study methods in my research.</p> <p>This research project will be, by its nature, interdisciplinary and qualitative rather than quantitative in form. Also due to the longitudinal aspect of the project taking a number of year's research material has become available later on in the project that was not available at the beginning. This relates specifically to the survey data now available for event cinema and live screening which replaces my own proposed survey approach.</p> <p style="text-align: right;">Expand as necessary</p>

SECTION THREE

i	Is ethical approval required by an external agency? (e.g. NHS, other HE institution, NGO etc.)		
		YES	NO
	Ethical approval from external agency is required		NO
	If YES indicate if this permission has already been obtained		

	Contact details of person from who permission is sought (if known) or obtained

ii	Does your research involve participants under the age of 18 or <u>other</u> vulnerable group?		
		YES	NO
	The research involves participants under the age of 18		NO
	The research <u>involves other</u> vulnerable participants (specify)		NO
	I have checked whether a certificate is required from the Disclosure and Barring Services (DBS)		NO
	I have obtained a DBS certificate (if required)		NO

iii	If your research does involve participants who are under 18 or from a vulnerable <u>group</u> indicate what measures you will take to safeguard them and protect their rights.		
	Expand as necessary		

iii	Does your <u>research</u> fit into any of the following security-sensitive categories		
		YES	NO
	Commissioned by the military		NO
	Commissioned under an EU security call		NO
	<u>Requires acquisition</u> of security clearances		NO
	Concerns terrorism or extremist groups		NO

iii	If you have answered yes to any of the above, please supply details. What <u>measures</u> will you put in place to ensure that your research cannot be misconstrued as supporting extremism, ensuring your own safety etc.		
	Expand as necessary		

SECTION FOUR

I have read the latest Ethics Guidance on the RPU webpages.

Yes	No
Yes	

i	<p>Give an overview of the main ethical issues raised by your research (e.g. confidentiality, anonymity, conflict of interest, sensitivity of data, potential for <u>harm etc.</u></p> <p>The only ethical issue raised is that of permission and security for one to one interview data. Only 2 interviews are planned, one with a specialist digital designer for The Nether – a West end play and another with an event cinema proprietor to gain industry insights.</p> <p>The information is not confidential, does not require anonymity, there is no sensitivity to the data and there is no potential for harm.</p> <p>An informed consent letter and form will be used to gain consent from the participants.</p> <p style="text-align: right;">Expand as necessary</p>
---	--

ii	<p>How will research participants be identified and recruited? How will you ensure that potential participants will be fully informed about the nature of the research?</p> <p>Direct contact will be made with the industry specialists and their informed consent requested.</p> <p style="text-align: right;">Expand as necessary</p>
----	--

iii	<p>How will you ensure the anonymity of your research participants? If it is not possible to guarantee anonymity what strategies have you in place?</p> <p>Anonymity is not required and request to cite interview content in the research thesis requested and signed for.</p> <p style="text-align: right;">Expand as necessary</p>
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iv	<p>Confidentiality and data security: How will you ensure that your data is secured</p> <p>Interview recordings and transcripts will be held on a secured network accessible by password and secure profiles.</p> <p>Once a transcript is produced then the audio recording will be destroyed.</p>
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	<p>The transcript data will be backed up to a secure cloud repository and the network will be triple protected by hardware and software firewalls, Server Antivirus and malware protection and email antivirus protection.</p> <p>Regarding GDPR:</p> <ul style="list-style-type: none"> • The right to be informed – The participants will receive an informed consent letter prior to participation • The right to rectification – The participant will receive a copy of the interview transcript and relevant sections from writing to approve • The right to erasure – The participant can remove themselves from the research at any time and all relevant documentation will be removed • The right to restrict processing – The participant can restrict the use of the data received in the interview • The right to data portability – The participant may receive the transcript or a copy of the recording in a relevant format for their approval • The right to object – The participant may object to any part of the interview transcript during the approval process • The right not to be subject to automated decision making such as profiling – No profiling will be undertaken and no automated processing will be undertaken with the interview data • The right of access – The participant has the right to access the interview data at any time • The lawful basis for processing personal information – The basis for the collection of the data is for research purposes only. • Data Impact Assessments (DPIAs) where high risk data is involved, or the method of processing is of a higher or unknown risk. – No <u>high risk</u> data is being collected • The issuing of Data Sharing Agreements in respect of all personal data shared with a third party. – Interview transcripts and citations will only be included in the final written research paper. No data sharing agreements are required. • The reasons why the data is collected. – the data is collected for research purposes only • Whose data is being processed, captured as a category eg. Students, Staff, suppliers. – Interview data from industry specialists is being collected regarding theatrical performances and event cinema management • What data is being collected, by type and source – Only interview data is being collected in face to face interviews. • When data is being collected – data is being collected at agreed interview meetings at the convenience of the participant • Who it may be disclosed to – The interview citations and transcripts will be included in the final PhD research paper which will be a public domain <u>artifact</u> • How long that data will be retained for – no personal data will be retained apart from the names and job titles of the participants. These will be included in the PhD research paper and held indefinitely. All research material held in other formats for the development of the research paper will be destroyed after 7 years • How the data collected will be stored. – As above on secure cloud repository and the network will be triple protected by hardware and software firewalls, Server Antivirus and malware protection and email antivirus protection. <p style="text-align: right;">Expand as necessary</p>
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PARTICIPANT CONSENT FORM

To be completed by the participant. If the participant is under 16, to be completed by the parent / guardian / person acting *in loco parentis*.

<ul style="list-style-type: none">• I have read the information sheet about this study• I have had an opportunity to ask questions and discuss this study• I have received satisfactory answers to all my questions• I have received enough information about this study• I understand that I am / the participant is free to withdraw from this study:<ul style="list-style-type: none">○ At any time (until such date as this will no longer be possible, which I have been told)○ Without giving a reason for withdrawing○ (If I am / the participant is, or intends to become, a student at the University of Greenwich) without affecting my / the participant's future with the University• I understand that my research data may be used for a further project in anonymous form, but I am able to opt out of this if I so wish, by ticking here <input type="checkbox"/>• I agree to take part in this study	
Signed (participant)	Date
Name in block letters	
Signed (parent / guardian / other) (if under 16)	Date
Name in block letters	
Signature of researcher	Date
This project is supervised by:	
Researcher's contact details: Greg Marshall University of Wolverhampton, Faculty of Arts Greg.marshall@wlv.ac.uk	

TITLE OF STUDY

Live Theatre in a Digital Context

PRINCIPAL

Greg Marshall

University of Wolverhampton, Faculty of Arts

Greg.marshall@wlv.ac.uk

RESEARCHER

PURPOSE

OF

STUDY

You are being asked to take part in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information.

The purpose of this study is to investigate how contemporary digital culture informs live theatre in the areas of immersion and identity

STUDY

PROCEDURES

A combination of observation and interview, field research and case study methods will be employed in this research.

Interviews will be with informed consent, you will receive a list of questions in advance regarding your field of expertise. You will receive a copy of the transcript and a copy of relevant parts of the writing which includes your citations for approval.

Interviews should take no longer than 1 ½ hours and an audio recording will be made to allow for accurate transcription.

RISKS

Only reference to the participants opinions will be included in writing and any reference to the opinions of others will not be used.

You may decline to answer any or all questions and you may terminate your involvement at any time if you choose.

BENEFITS

There will be no direct benefit to you for your participation in this study. However, we hope that the information obtained from this study may lead to the body of knowledge regarding live theatre and digital culture and to further research.

CONTACT

INFORMATION

If you have questions at any time about this study, or you experience adverse effects as the result of participating in this study, you may contact the researcher whose contact information is provided on the first page. If you have questions regarding your rights as a research participant, or if problems arise which you do not feel you can discuss with the Primary Investigator, please contact the Ethics Review Board at S.Jacobs@wlv.ac.uk, +44 (0)1902 323578

VOLUNTARY

PARTICIPATION

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign a consent form. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect the relationship you have, if any, with the researcher. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

CONSENT

I have read and I understand the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study.

Participant's signature _____ Date _____

Investigator's signature _____ Date _____

8.9 Event cinema historical background

David Fisher has usefully developed a website which chronologically identifies events in the mediums of TV, film, radio and video with a special section he refers to as Cinema-television (Fisher 2017). Ranging from 1875 through to 1964 there is a long history of presenting live images on a projected (film) or illuminated (TV) screen. Many experiments have been run and some large scale commercial enterprises initiated.

The point raised by this chronology is that the interest in what is now referred to as event cinema is not new, but is enabled through new technology and means of communication. Event cinema really begins in the modern era in 2003 with the David Bowie presentation and follows through to the Metropolitan Opera, NT Live and beyond. The chronology also highlights that there is a wealth of experience in the medium over a long period of time which makes it a surprise that the aesthetics of event cinema are still emerging and developing²⁰.

8.9.1 Event Cinema Timeline

- 1878 http://www.terramedia.co.uk/Chronomedia/years/Edison_Telephonoscope.htm December 9 'Edison's Telephonoscope (transmits light as well as sound)' shows a wide-screen videophone conversion
- 1924 'Broadcast Listeners' Year Book forecasts 'The Wireless Musical Cinema' within two to three years.
- 1927 April 7 First public transmission of television pictures over telephone lines, Picture Telephone is made by American Telephone and Telegraph Company (AT&T)
- 1928 RCA begins work on large-screen television.

²⁰ From 1931 through to 1954 Baird and his successor company Rank presented special broadcasts to large screen starting with a Derby horse race and finishing with the coronation of Queen Elizabeth II.

Baker picks up on the technological problems that the new form of presentation had and this was of getting the image to be big enough. Live events could be presented on small screens such as televisions but to get a larger image it needed the power of a cinema projector. The RCA Kinescope and Baird's Scophony system (Baker 2013: 6) did work but produced a maximum of 15 by 12 foot images.

Prior to digital projectors Fisher highlights the Eidophor which could create large images initially in black and white and then later in colour. These were used in cinemas but were very expensive and bulky but in use for large screen projections until the 1990's when cheaper solutions were developed.

- 1930 January 16 RCA demonstrates large screen television at RKO-58th Street Theatre, New York.
- 1931 January 4 Baird demonstrates 'zone television',
- October 24 [Ulysses A Sanabria](#) gives a cinema-television demonstration at the B S Moss Broadway Theatre in New York.
- 1932 June John Logie Baird transmits pictures of the Derby horse race at Epsom to a large-screen television display at the Metropole Cinema, London.
- 1935 March 22 Germans begin regular television service of Reichs Rundfunk from studios in Berlin on 180 lines using only telecine transmission of film and an intermediate film system
- 1936 January 4 Live television programming is shown on a screen 8ft x 6ft 6ins at the Dominion cinema in Tottenham Court Road, London from the Baird studio.
- 1936 August 1-16 High-definition television broadcasts from the Berlin Olympic Games are seen by 150,000 people in 28 public television rooms in Berlin
- 1937 May 12 R R Law and Dr Vladimir Zworykin of RCA give a demonstration of large-screen television to the Institute of Radio Engineers in the USA. The projector uses a Kinescope tube, the designers having recognised that a different type of tube is needed for projection television than for domestic receivers.
- 1938 February 4 First UK public demonstration of large-screen colour television. Presented as part of a variety show to an audience of 3,000 at London's Dominion theatre by Baird
- 1939 January Direct projection television with a 15ft x 12ft screen is installed at the 1,190-seat Marble Arch Pavilion by Baird Company. February 23 BBC live boxing television transmission is screened at the Marble Arch Pavilion in London.
- 1943 December 31 Television pictures are first projected successfully by the [Eidophor](#) large-screen system. The technology has been under development since 1939 at the Technical Physical Department of the Federal Institute of Technology, headed by Dr Fritz Fischer.
- 1945 March Hankey Committee recommends temporary revival of a 405-line television service in the UK but advocates exploration of 1,000-line technology suitable for cinemas and of colour and 3-D, to replace 405-line monochrome as soon as possible. June 10 Baird demonstrates large-screen television at the Classic Cinema, Baker Street, London. His company is now located at 466 Alexandra Avenue, Rayner's Lane, Harrow, Middlesex. Four days later, Baird dies of pneumonia.
- 1947 April RCA demonstrates its latest version of projection television at the National Association of Broadcasters (NAB) Convention in Atlantic City, New Jersey.
- 1948 April Surprise public exhibition of a 15-minute newsreel using intermediate film large-screen television at the Paramount Theatre, New York. Television pictures—re-photographed on 35mm film from a 10-inch cathode ray tube and fed through a machine which develops, fixes, washes and dries it before entering a conventional projector—reach the 18ft x 24ft screen in 66 seconds. The screen used is larger than the average cinema screen at this time.
- June Direct projection large-screen television is installed by Twentieth Century-Fox at the Fox Philadelphia theatre to show instantaneous pictures of Louis-Walcott fight relayed from New York over 100 miles away.
- 1949 April RCA-Fox-Warner large-screen television system is demonstrated to the Society of Motion Picture Engineers convention, New York. The projector system uses a 12-inch cathode ray tube with a 21-inch spherical mirror and correcting lens capable of throwing the picture between 45 ft and 80 ft.

- 1951 May 4-September As part of the Festival of Britain, the Telekinema [right] shows live large-screen transmissions of interviews from a nearby studio. As its name implies, the 400-seat cinema is equipped for large-screen television projection as well as conventional and stereoscopic 35mm film.
- 1952 September 23 Heavyweight boxing bout between Rocky Marciano and Jersey Joe Walcott is screened to paying audiences on large-screen television in 49 cinemas in 31 US cities.
- 1953 June 2 The Rank-controlled successor to Baird Television, shows the Coronation coverage on large screens to capacity audiences in a number of cinemas around the country, including the Gaumont Haymarket, Marble Arch Pavilion, the New Gallery in London and the Gaumonts in Doncaster and Manchester.
- 1954 December 2 Coverage of an England v Germany football match is shown by Cinema-Television on large screens in eight cinemas around England, five of them outside London, including the Gaumonts in Manchester and Doncaster.
- 1955 Two Eidophor television projectors are installed in a New York cinema as part of a deal that will see the machines being manufactured by General Electric at its plant in Syracuse, New York.
- 1964 March 14-15 First US concert by The Beatles (supported by The Beach Boys)—'filmed' on 11 February at the Coliseum in Washington DC—are shown on 'closed circuit' cinema screens across the US by CBS.
- September 23-24 Electronovision's recording of Richard Burton as Hamlet is shown twice daily for two days only in 991 US cinemas, with a reported box office gross of \$3m.



(Fisher 2017)

8.9.2 Event Cinema web sites

All the major cinema chains provide an event cinema program and advertise these events on their websites

The Odeon Cinemas (Odeon.co.uk 2017) had 47 events advertised between August 2018 and June 2019. Each event is linkable and can be opened to find out more information and to book a ticket.

Showcase Cinemas (Showcasecinemas.co.uk 2017) had 39 live presentations between August 2018 and June 2019 and has a similar site to the Odeon with a full listing and drill down events for booking. No additional graphics help with the idea of prestige or offer any explanation of what event cinema is. Many of the events are the same as for the Odeon chain but there are some individual events that the Odeon does not include such as musicals and likewise for Showcase. Again no explanation of what event cinema is or what to expect from the experience

Vue cinemas (Myvue.com 2017) take a different approach to how they present event cinema; there is no single listing of events but instead a list of categories. These are Theatre, Opera, Dance, Music, Gaming, Sports, TV, Comedy, Knowledge, Innovation, Classics and Anime.

Theatre, opera and dance are as would be expected with play from NT Live, opera from the Royal Opera and Sydney Opera House and ballet from the Royal Ballet and the Bolshoi.

The initial graphic indicates that this is not cinema and infers that it is something more, an event. Vue Cinema are taking this form very seriously and embracing all the possible forms including gaming, a new comer to the genre, including exhibition presentations under the Knowledge banner and a section called Innovation where interactive presentations are included.

Vue cinemas make the effort to explain what event cinema is and what the experience will be like. They state ‘This is not a cinema – this is the world's greatest stage. It’s a front row seat, the royal circle, a bird’s eye view. It’s the rustling of programmes, the thunderous applause on opening night. It’s the sword fights, the death scenes, the ill-fated lovers. It’s bold, flawlessly executed drama, comedy and tragedy captured in the highest definition. This is theatre how it was always meant to be seen.’ (Myvue.com 2017)

The genre of event cinema at Vue has been extended to include otherwise unshown productions on large screen of TV programs.

There is a refreshing sense of purpose with the Vue cinema website and explanation of the types of events. The explanation is useful and encourages a feeling of an occasion where it is something special to go to the cinema. Likewise each other category has its own specific explanation to help understand what the genre is. As another example in the innovation section Vue helps by describing it as;

‘EXPECT THE UNEXPECTED. OPEN YOUR MIND.
BROADEN YOUR IMAGINATION.

This is not a cinema – this is whatever you decide it to be. It’s a journey into the rabbit hole of virtual reality. It’s an edible cinema experience. It’s an interactive film where you choose the ending. It’s unexpected. It’s thrilling. It’s breaking all the rules. This is Big Screen Innovation.

NORMAL RULES DON'T APPLY

Expect the unexpected. You’re in the driving seat, so how your experience pans out is completely up to you. Bring an open mind,

a fully charged phone (you never know) and your imagination.’

(Myvue.com 2017)

Extra instructions about mobile phones give clues to the type of interactions which may be possible and that it is a special experience, not just another visit to the cinema.

The National Theatre (Ntlive.nationaltheatre.org.uk 2017) offers quite a lot on their web site with the inclusion of many behind the scenes videos of rehearsals, interviews, set design and vocal warm ups. Additional links to facebook, Twitter and mailing lists are also available.

8.10 Glossary

Artificial Intelligence (AI)	Artificial intelligence (AI) is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans. Artificial Intelligence (AI) is a technology which enables much interaction with our digital applications such as Facebook, Amazon and Google, with much investment from the tech giants being poured into AI research. AI will help fill our newsfeeds, suggest new connections and purchase options and aid with completing search requests.
Avatar	A user's visual representation of themselves, usually a photo, but can be an animated form.
Cyberspace	Cyberspace refers to the virtual computer world and is synonymous with Virtual Environment, and more specifically, is an electronic medium used to form a global computer network to facilitate online communication also known as the internet or world wide web
Digital Culture	'Digital Culture' refers to the behaviour enabled through digital technology, and is not the technological artefacts themselves but how the technological possibilities are negotiated by people. Digital culture derives its status from the premise that we are able to create an alternate aesthetic using the ubiquitous communications of the internet with the many digital devices available to us such as computers, mobile devices and wearable devices, and through the suite of application software.
Digital Technology	The hardware and software used to enable digital devices and communications.
Event Cinema	A broadcasting of live theatrical, sports, musical or other events in a cinema context

Live Streaming	Live broadcasting through social media. This is expected to grow in 2019, especially between social media platforms and television broadcasters.
Presence/immersion	Both presence and immersion are used interchangeably to describe the sensation of feeling physically present within a virtual experience, as opposed to the detachment experienced through experiencing content via a conventional screen-based medium.
Real Identity / Real Self	In the real world we have our 'Real Identity' or 'Real Self' which is how we choose to present ourselves to those around us. This identity may be contextualised and can vary depending on relationships and the situation, though we tend to retain our physical aspects such as body, voice and disposition. This is different to 'Virtual Identity' (Virtual Self) where there is much fluidity with how we choose to present ourselves to others. This self, sometimes represented by an avatar (an image of ourselves in a virtual environment), may be a close representation of our real identity or may be fabricated. Or our virtual identity may be formed by the posts we and others make within social media, often presenting the best we can be through words and pictures.
Real World	The physical, tangible environment which we inhabit and perceive through our senses. 'Real World' refers to everything experienced that is not technologically augmented, enhanced, enabled or facilitated. This is where we as humans exist and interact with each other face to face, where we are able to breathe, touch and live out our lives, whereas the Virtual World has to be accessed electronically and we experience the illusion of existing in another space which is generated digital facilitated.

Virtual Environment	A general term for all technologically enabled networked space or place that can be accessed through digital devices, typically for interaction with others.
Virtual Identity / Virtual Self	A representation of oneself in a virtual environment which does not need to be the same as the real self in the real world. This might be how a person presents themselves on social media through photographs and commentary.
Virtual Reality (VR)	‘Virtual Reality (VR)’ is a generic term used to indicate alternate environments created wholly with digital technology. VR is normally, but not exclusively, accessed using immersive devices such as visual headsets, headphones and motion tracking devices. Virtual Theatre is performance which could be created entirely within a VR environment. While Cyber Space might refer to VR it can also refer to the generic internet and web enabled digital environments. These are electronically connected spaces used for everything from security, email communication to VR and gaming.