

The Theatre of Gaming: An Investigation of the Theatrical Quality of games.

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Abstract

While theatricality is a medium with a long and extensive history the study of digital games is relatively new, yet there are many parallels between the two that are both inherent and fundamental. This research aims to produce a theoretical synthesis between the two media by providing an analysis of the ontology and process of meaning making in both media. The role of the player in a digital game is a complex and ambiguous one where they perform a dual function as both audience and performer. The creation of narrative and meaning for the game's player and the theatrical audience is often similar, relying on the creation of fully established and functioning fictional worlds to engage with. Primarily this is done through design and mise-en-scene strategies. Drawing from existing texts as examples, this research aims to explore the extent to which games adopt and have evolved from theatrical conventions of storytelling and aesthetics.

Declaration

I declare that this dissertation/thesis is my own unaided work. It is submitted for the degree of Master of Arts in Digital Arts in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination in any other university.

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Chapter 1 - Introduction

“I can take any empty space and call it a bare stage. A man walks across this empty space whilst someone else is watching him, and this is all that is needed for an act of theatre to be engaged”

- Peter Brook (1996, 1)

To understand the fundamental and inextricable conditions necessary for theatre, teachers, practitioners and academics often frame it in terms of the opening sentence of Brook’s revered book, *The Empty Space*. It is from his lead that I also begin my own research into the ‘act of theatre’.

This research aims to address a single fundamental question and expand on the intricacies that arise from it: to what extent can digital games be considered theatrical? The complexities addressed in this [dissertation](#) offer a comparison regarding various aspects of both digital games and theatre: the ontological function; role of the player, the actor and the audience; how narrative and meaning is created, and what considerations in design¹ processes are similar to both media.

Before moving into the specifics of each element it is important to raise a particular concern with this type of research. As Henry Jenkins, an eminent media scholar, notes “the application of film theory to games can seem heavy-handed and literal minded, often failing to recognise the profound differences between the two media” (2004, 119) and there seems to be no reason why a comparative study of digital games and theatre could not fall into the same traps. Both Janet Murray (1998) and Espen Aarseth (1997) (leading literary theorist of digital media) preface their studies with warnings of this ilk. Murray suggests that digital media, or rather ‘new media’, is in the ‘incumbular²’ phase and it would be a “mistake to compare the first fruits of a new medium too directly with the accustomed yield of older media” (28).

Despite Murray’s evocative metaphor of new vs. old, Jenkins and Aarseth discuss the problem of overt comparative studies on a more fundamental level. They argue that the problem lies in not understanding that new media is not a ‘means’ for transposing older media, nor should the focus of these discussions be on the values of old and new media. These approaches often lead theorists to fall into a fundamental and didactic comparison. Rather

¹ I use the term design because of its relationship to digital games. While there are many aspect to the theatrical experience, design being but one, I am suggesting that what should be examined is the designing of the participant’s experience.

² The incumbular is a term that was originally used for books published before 1501. They were called this because they were made during the infancy of the technology required to make them. Murray thus adopts the term for digital media that is still relatively speaking in the infancy of its artistic development.

“emerging new media technologies are important in themselves, nor as alternatives to older media, but should be studied for what can tell us about the *principles and evolution* of human communication” (Aarseth, 17) (my italics). This suggests that one media can evolve into another through technological improvements or general paradigm shift, and also that each media potentially has embedded in its form the roots of what will follow. The fact that these *evolutions* suggest more about the ‘principles’ of human communication than the inherent value of the media removes value judgments and the notion that new media are simply a means for transposing older media.

Murray suggests that filmic devices (‘flashbacks’, ‘crosscuts’ and ‘panoramas’) existed in the literature of Bronte, Dickens and Tolstoy long before they could even be considered in the visual language of film (29). In “The Work of Art in The Age of Mechanical Reproduction” (2007) Walter Benjamin suggests that each new technology of communication ‘foreshadows’ the next (219). Therefore it is important not to try and grasp what a new media does or doesn’t do in isolation, nor should one attempt to classify media by means of a ‘heavy handed’ comparison. Rather the evolution of media as a whole family of artistic endeavours should be understood.

Perhaps then it makes sense to rephrase the question of this research. Instead of ‘to what extent can digital games be considered theatrical’, the question could be: ‘in what ways have digital games evolved and adapted from the theatrical’? This question in itself has problems. It too may fall into the trap of presuming the superiority of the older theatrical over the newer digital games. It also suggests that digital games are derived almost exclusively from the theatrical, which is clearly not the case.

To avoid assigning superiority to theatre or over emphasising its primacy in development of digital games my research aims to examine ontological and experiential similarities between the two media in order to better situate digital games in the broad spectrum of artistic expression. Though a comparison between the two does not provide a fully fleshed understanding of digital games, it helps to elaborate future study into a relatively new field. At no point do I aim to provide profound new insights into the well-established and comprehensive understanding of theatricality as a medium. As Aarseth mentions, the purpose of his research into cybertext (a category which digital games fall under and is discussed later) is to, as Barthes proposed, illuminate “a deductive method, leading to a “hypothetical model of description”” (1997, 9). So the motivation behind this paper’s question is to expand this ‘hypothetical model of description’ for all digital games by illustrating strong ties to the existing medium of theatre. In order to reach these conclusions, specific attention needs to be drawn to aspects of both media that play a fundamental role in their individual construction and function.

In both media, arguably in all media, role of the player/audience is primary. As Brook suggests, an act of theatre can only be engaged in when someone is watching someone else perform. This definition is very loose (as it should be) and therefore encompasses all performance-based media under the wide umbrella of the theatrical. So it is the audience who creates theatre by their physical presence and by viewing events and actions in a set space. This

quintessential relationship between a performer and an audience that necessitates theatre, gives an agency to the audience that is not found in many other forms of art. Although Aarseth will argue that this agency present in theatre is not true agency but rather participation (4), the fact that theatre cannot function without the audience provides a type of agency that is not found in, say, film or literature. Both games and theatre only exist as activities. These activities can only exist with the participation of the audience or the player.

In theatre while the audience may have no influence over the narrative, they encourage, diminish, accept or reject the performance: the actor cannot deny or shy away from the audience's input. Rather they accept and adapt their performance depending on the input they receive. This input is often direct: laughter, jeering, clapping or booing. Sometime though it is a more indirect: shifting in seats, coughing, scratching, and leaning forward. So while Macbeth is destined to be corrupt, on one night he may do so with a charm that the audience demands. Another night he may spit and scuff the stage in a rage the audience loves to hate. The audience will always 'decide' how the actor will perform their given roles/characters, or they will leave unsatisfied and discontent. Susan Bennett, an eminent scholar on audience reception theory, draws from Vsevolod Meyerhold, Keir Elam and various other theatre practitioners and theorists in order to provide an understanding of the audience's active role in the production of theatrical events. Jerzy Grotowski (2002) even went so far as to suggest that the relationship between the actor and the audience is 'holy'. The formal relationship and the functioning of digital games is similarly dependent of the receiver but in a more ambiguous fashion.

Katie Salen and Eric Zimmerman synthesized a definition of games from various existing definitions and concepts, and finally proposed a definition of their own: a game is "a system in which players engage in artificial conflict, defined by rules, that result in a quantifiable outcome" (2003, 81). Though Salen and Zimmerman have admitted that the definition is not perfect and that certain games escape particular clauses, they offer it as working definition that they follow throughout their book, *Rules of Play: Game Design Fundamentals*. In order to further this particular research I will also provide working definitions for both theatre and games and explore Salen and Zimmerman's definition further. For the time being I would like to draw attention to the necessary 'player' and 'system' in their definition.

It is obvious, even without relying on their definition, that a game cannot function without the player. A game without a player is just code, or bits, that do nothing. It is an incomplete circuit. It is through the players 'interaction' that the game exists as more than just a collection of parts, as a *game*. Like the actor the player must accept and adapt to feedback of any kind. In this way the 'act of gaming' is intrinsically linked to the efforts and participation of the player, mirroring Brook's 'act of theatre's' dependency on the actor and audience. But if we consider this in theatrical terms is the player the actor or the audience? The player does progress the narrative and is essential to the creation of a finished project. Therefore the player will have to be the actor. But games are also works of art that are to be received, interpreted and enjoyed by the player. Therefore the player will have to be the audience. This question, and questions revolving around participation, agency, and interaction explores the ambiguous and challenging Role of the Gamer. Though this question of the role of the gamer is the most

important aspect in understanding the theatrical qualities of games, this will only be discussed later as a broad definition and understanding of both theatre and digital games needs to be established in order to investigate these more nuanced aspects of their similarities.

As foundation I begin with the definition provided by Salen and Zimmerman. They mention a 'system in which the player engages' that is a prerequisite for games. The idea of such a system (especially when based in code) is often linked to coding practices and scientific practice (take for example mathematician Norbert Wiener's feedback loop (Salen and Zimmerman, 214)). Yet in an artistic medium such as games what does this system come to mean? All forms of art work through a relationship of reception and subsequent interpretation. Viewing the "Mona Lisa" creates a direct and necessary relationship between the art object and the viewer who is interpreting the work and creating meaning. However it would hardly be accurate to describe viewing an artwork or reading a book as a system³. There is no opportunity for direct feedback from the viewer/reader into the system of the work. Yet, as Salen and Zimmerman suggest, for games this system of feedback is absolutely essential for the 'reading' or activation of a game. Brook's 'definition' of theatre, though he does not directly mention it, also calls for a similar system.

Thus there is a commonality in the functioning of both media that involves a system dependent on what has been created by the artist(s) and the audience reaction. This commonality is not all encompassing and I do not mean to suggest that it is. The agency that the player has that Aarseth points out is more active in ergodic literature (a category that games fall under) and is mostly not present in theatre (4) (though there are strong examples of experimental theatre that do include this type agency that will be explored later). However, in theatre there is an agency or participation required from the audience, even if this is just their presence (Bennett, 13).

An important aspect that the philosopher Samuel Weber, in his discussion of theatricality as a medium, offers is that "one of [theatricality's] indispensable preconditions, [is] some sort of real, immediate, physical presence" (2004, Introduction). Brook's definition also has the implication of the actual and very real physical presence that is necessary for theatre. This obviously cannot be the case in a digital game. Yet there is a physical presence in the form of the player. The screen displays an avatar, however, the fact that that avatar can only move or function with input from the player suggests a dependence on an actual physical presence. Both Murray's vision of 'cyberdrama' and Aarseth's ergodic literature are dependent on, and invite this kind of input. Much of the meaning that they derive from these art forms comes from the participant/user's active physical engagement with the work. This can be anything from the click of a mouse to the turning of your body in a virtual reality headset.

As a starting point to this paper's comparative study, I will address these concerns of systems

³ This is perhaps reductive of other art forms and that this does not investigate in enough detail reader-response theory or any other systematic readings of the work of art. However those more complex relationships cannot be investigated in the scope of this research, nor do their nuances affect an understanding of these two media.

and presence by examining both media from an ontological level and then to interrogate the similarities between them before investigating the more intricate and nuanced comparisons between the two. Part of this discussion will revolve around unpacking Salen and Zimmerman's definition in terms of 'quantifiable outcomes', 'conflict' and 'rules'. Some of these have direct correlations to theatre. For example Aristotle proposes that theatre, or more specifically drama, revolves around conflict. Outcomes could be perceived as also relating to this unpacking of plot. More complexly, the rules of theatre could be considered the script, which the actors react to and engage with. To this end this research provides working definitions of both media and in doing so finds entrenched similarities.

While there has perhaps not been such a specific ontological comparison between digital games and theatre, many have tried to understand new digital media as a form of theatrical art. Murray (1998), Laurel (1993), Noah Wardrip-Fruin and Pat Harrigan (2004) and various others all explore the potential of 'cyberdrama', 'computers as theatre' and 'new media as performance'. But much of this research concerns potential and perhaps unrealised goals of digital media and games. The tendency in this kind of research is to focus on narrative and how digital media can create narratives that expand our canon of narrative experiences. This often limits the scope of digital media.

Traditional media are temporal and visual, generally not spatial. Games are visual, temporal and spatial. This combination of traits makes games rare in artistic media and makes a discussion and examination of the narrative qualities (and capabilities) of games difficult. In a game you are responding to visual stimuli while navigating through constructed virtual spaces (as Weber suggest the gerund here is indicative of the temporal quality of the medium (Ch. 1)). Juul explores in great detail the idea of the fully functional fictional world or hetrocosm⁴ that games create when played. What separates these hetrocosms from other media is that they can be actively explored (to the degree that the designer has constructed them). This exploration breaks narrative control that the author of the work may wish to establish as the player can engage in unforeseen ways with the environment.

The discrepancy between the narrative and gameplay (in this case specifically exploration) has nearly lead to what Jenkins describes as "a blood feud [that] threatened to erupt between the self-proclaimed Ludologists, who wanted to see the focus shift onto the mechanics of game play, and the Narratologists, who were interested in studying games alongside other storytelling media" (118). Again this debate seems not to understand that games could be considered an *evolution* of storytelling. But what Jenkins manages to do, after providing insight into the debate, is situate the discussion within the spatial realm. The 'narrative architecture' that Jenkins describes prompts the Narratologists to understand narrative through a

⁴. Hetrocosm (as defined in this discussion): Is a fully functioning fictional world. It is functioning in the sense that it has rules, laws and means of creating meaning that are mimetically accurate to the fiction of it. This definition is taken from Halliwell in his book on mimesis and is a term that he draws from Baumgarten

spatial construction of meaning, and the Ludologists to understand that narrative need not be a linear unfolding of a story.

Most relevant in terms of the theatrical are Jenkins' notions of the 'enacted story' and the 'embedded narrative'. For Jenkins the enacted story is the spectacle or the improvisation. So certain rules and basic structures are suggested and then the performer enacts around those rules. The performer in this case could be the clown in a play or the player in a game. Enacted moments are pleasurable moments for viewing which forward the narrative or story but have much more freedom for the unexpected. This is what most of theatre is. Because theatre is live and the actors are following roughly the rules of the script, there will always be moments for play. The embedded narrative is storytelling not focused around plot but rather the construction of the *mise-en-scene*. In games the level designer includes details that suggest much about the *hetrocosm* that we cannot engage with (this would be parts of the environment that we cannot enter). This notion draws strong parallels to theatre practitioner Antonin Artaud's (2010) notion of "theatre of cruelty" or 'virtual reality of theatre', where much of what the audience receives is through a "triumph of *mise-en-scene*".

Jenkins also proposes that "not all games tell stories. Games may be an abstract, expressive, and experiential form, closer to music or modern dance than to cinema. Some ballets (*The Nutcracker* for example) tell stories, but storytelling isn't an intrinsic or defining feature of dance" (119). It is interesting to me that he turns to dance - a theatrical form - here. In dance and, in Jenkins' argument, abstract games, it is expressions and gesture that create meaning and a type of 'narrative', if we accept that narrative can be a broad term expressing meaning, tone, feeling and mode.

Weber's own understanding of theatricality proposes that in the theatrical the '*dramatic*' elements of plot and narrative do not, in and of themselves, hold as much importance as the *way* in which a story is told (Introduction). This elevates 'means' of expression above content itself. Because theatricality is about the relationship with the audience it is the crafting of actions, movements, set pieces and their function that are important rather than each audience member's subjective interpretation and response to the story being told. Weber calls this the 'how' (how something is done) of theatre that is valued over the 'what' (what is being told) (Introduction). The same can be said for digital games, enhanced by the agency of the player. This is how Murray is able to argue that Tetris can be seen as "perfect enactment of the overtasked lives of Americans in the 1990s" (144).

The final part of this paper seeks to explore how narrative functions in games and to what extent this draws on theatre. Here the paper will rely on the ontological similarities explored before in order to understand and comment on meaning and narrative. Much of this concerns the spatial environments of digital games and theatre and how similar narratives draw from these environments. Particular attention will also be paid to what narrative as a term entails and whether the gestural expression of theatre and digital games has similar ways of creating meaning. Essentially here we are investigating what role linear narratives do, or need to, play

in games and, if we abandon traditional imaginings of narrative, how is meaning created through a broad sense of fictional worlds or hetrocosms, and how an understanding of theatricality could help unpack this.

Watching theatre and playing a game are fundamentally different acts. The one is digital, the other corporeal. However, as an evolution of artistic media, digital games find many roots in the theatrical. The systemic nature of both media, both dependent on the input of the audience, links games to theatre in a much more formalised way than to other media. This also raises some concerns around the role of the player in such a system. The player functions in a duality of actor and audience, an ambiguous position that can productively be examined through theatrical conventions that define audience and actor. As the audience the player is therefore the receiver and interpreter of meaning. The types of narrative that can be achieved by this positioning of the player again draw from theatrical conventions where the gestural language and the 'how' take primacy over the structured plot.

| The purpose of this research is not to merge the media and position games and as a subset of theatre. Rather, accepting that this 'new medium' is an evolution of older artistic forms, to uncover to what degree games have evolved from the theatrical, and to what extent an understanding of the theatrical can expand the vocabulary of games. Through this research we can offer the following definition of the act of gaming: 'a player controlled avatar moving across an empty screen while being watched by the player is all that is needed for an act of gaming to be engaged'. We can also analyse to what extent this is true. If it is, then is digital gaming the obvious and necessary evolution of the theatrical?

Chapter 2 - Defining the Media

In order to create or find a “deductive method, leading to a ‘hypothetical model of description’” (Aarseth, 1997, 6) mentioned in the introduction we need to define both theatricality and digital games on an ontological level. Using these working definitions we will be able to compare the two media in a productive manner. However, before moving onto the specifics of each media, it is important to note how I have situated these two discussions and why.

The broader and older field of study is the theatrical. As Weber and Stephen Halliwell, an eminent semiotician, discuss in their respective books the notion of theatricality and its branches stems from the writing of Plato and Aristotle. There have of course been numerous nuanced analyses of these two philosophers and they have been adapted and incorporated into many contemporary practices of theatre and all performance based art forms. I use the term theatrical, as defined by Weber, as means for exploring that which is live and involves an audience. This means that the term can encompass traditional drama such as Aristotle and Plato discussed, as well as more contemporary ‘interactive drama’ or performance art. Theatricality, unlike drama, relates specifically to performance and how performance impacts the audience. Included in this notion of performance is the all-important aspect of the spectacle.

Such a broad understanding of the theatrical allows us to imagine a lecturer in front of their class as an act of theatre, or a rock band performing in a concert. The broadness of this definition of the theatrical is necessary when analysing and comparing theatre to digital games because the concept of the theatrical does not limit the topic to traditional *narrative based drama*, but rather examines the ontological functioning of the performance based art forms as a whole. While the term could be conceived as quite problematic and possibly reductive of the forms such as performance art or live music, when examining the theatrical in more detail, the use of this definition will reveal why this term could be considered so inclusive.

It is almost the direct opposite with digital games. Unlike the broad concept of the theatrical, digital games falls under various umbrella terms as a specific form or genre. So when we consider Aarseth’s notions of ‘cybertext’ or ‘ergodic literature’, this is much broader than just digital games and will also include hypertext narratives and many other forms of digital media. Also Murray’s definition of ‘cyberdrama’, while often referring to games as part of this concept, is a much broader field of narrative and literary investigation than just games. Digital games are very specific, and as Salen and Zimmerman’s definition suggests, have strong characteristics that are necessary for them to be qualified as games. Digital games fall

under the umbrella term of 'new media'.

The reason for comparing an *umbrella term* and a *subcategory* is difficult to fully locate. The most obvious is that this paper is a digital games study and therefore will not serve itself by discussing in great detail all of new media. But more than that, the theatrical is an ancient field that is well studied and investigated whereas digital games are still a relatively new field of investigation. As mentioned, the problematic umbrella term 'theatrical' is broad; this also serves to move it away from very specific means of creating narrative and meaning. So the discussion can then branch into a more ontological research as opposed to the very specific ideas of traditional drama (Shakespeare, 'straight plays' or musicals), which are entrenched in narrative studies. Also, it is in defining and investigating a specific subcategory of new media or ergodic literature that one is able to understand how it fits into its own umbrella category.

A game is "a system in which players engage in artificial conflict, defined by rules, that results in a quantifiable outcome" (Salen and Zimmerman, 81). This definition is not limited to the digital and is applicable to all types of games. Jesper Juul's definition of games, which is also a synthesis, suggests that "a game is a rule-based 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 emotionally attached to the outcome, and the consequence of the activity are negotiable" (36). This definition is far more elaborate as it tries to encapsulate far more nuance. However, what is important to us - the system, the outcome, the rules and the player interaction - are present in both definitions.

Both Juul and Salen and Zimmerman highlight the importance of understanding games as a system. Salen and Zimmerman define a system as:

1. A group of interacting, interrelated, or independent elements forming a complex whole
2. A functionally related group of elements, especially:
 - A. The human body regarded as a functional physiological unit
 - B. An organism as a whole, especially with regard to its vital processes and functions
 - C. A groups of physiologically and anatomically complementary organs or parts: the nervous system; the skeletal system.
 - D. A group of interacting mechanical or electrical components
 - E. A network of structures and channels, as for communication, travel or distribution
3. An organised set of interrelated ideas or principles.
4. A social, economic, or political organizational form.
5. A naturally occurring group of objects or phenomena: the solar system.
6. A set of objects or phenomena grouped together for classification or analysis

7. A condition of harmonious, orderly interaction
 8. An organised and coordinated method; a procedure”⁵
- (Salen and Zimmerman, 50).

As Salen and Zimmerman point the first definition sets out and includes all others. That is: ‘interacting elements forming a complex whole’. What is important is that the system only works through interactions and connections. We cannot have the solar system (number 5.) without the sun exerting force on the planets, and a circuit is easily broken if one part is removed or damaged.

Salen and Zimmerman set out three distinct ways of imagining the system of the game (51 - 52). The first is the ‘logical or mathematical’ system that includes the rules, the created environments and avatars/agents. Each element is programmed to respond in particular ways to player input and the programming allows them to be engaged in specific ways. Considering games in this ‘closed system’ does not allow enough discussion of how a game functions as a work of art. This is because, as Juul points out, games could be considered both ‘static objects’ and ‘activities’ (43). Framing games as a logical system implies that it is a static object and not an artwork.

The next two systems that Salen and Zimmerman offer are ‘experiential’ and ‘cultural’. The latter is how the game is received and contributes towards the cultural understanding of games. This framing examines aspects such as the design of the game in relation to culture and context of its creation. The history of the game and its design process is therefore a major part of this discussion. However, what is most relevant to this research is the experiential system. The experiential system is the framework through which we can examine chess when it is played and the systematic relationship between the player and the coding⁶. In this instance the game is activated aesthetically by including players in the system, an inclusion that both Salen and Zimmerman and Juul suggest is essential for a game to exist. It is this relationship, the input from the player and the feedback from the game, which makes a game a game. It is important to note that Salen and Zimmerman suggest that while these 3 systems have to “exist simultaneously, it can be useful to focus on just one of them when making an analysis or solving a design problem” (55). This establishes that these ways of framing digital games’ systems act as tools that help the designer figure out if the game works or is broken (the logical system), helps the player understand what is happening in the game (experiential system) and will help the academic or reviewer understand the game in context (cultural system). It is

⁵ It should be noted that they drew this definition from dictionary.com . However, this has subsequently been updated.

⁶ Coding here refers to the programming of a digital game or in a very loose sense the structuring of rules and mechanics in an analogue game.

important to recognise that no systems function without the experiential, which is the most important part of game.

The above understanding of the systematic nature of games is at its most fundamental. There are many other ways to understand the system and how the system works and functions. For Salen and Zimmerman these understandings relate variously to games as 'systems of semiotics', 'systems of emergence', 'systems of uncertainty', 'cybernetic systems' and 'systems of conflict'.

Games could easily be considered cybernetic systems especially when considering the role of the player and how important they are to the functioning of games. The cybernetic system has three essential elements: *a sensor, a comparator and an activator* (Salen and Zimmerman, 227). These three components function by measuring certain aspects of an environment (*sensor*) then comparing the findings to a predefined criteria and deciding if an action should be taken or not (*comparator*) and the *activator* making changes to the system (the classic example being an air conditioning system) (214 - 215). Salen and Zimmerman use this to examine how rules function in games. For example in certain first person shooters (FPS) when you get hurt the sensor detects your health, the comparator decides that your health is too low and you should walk slower and the activator makes this change to your movement abilities. The suggestion here, and it relates directly to programmatic language (*if this, then that*), is that embedded in the game are many feedback loops that determine what will happen in the game as the player progresses. Essentially the *sensor* is detecting the decisions of the player.

There is a suggestion that the *controller* (console controller, mouse and keyboard, touchscreen etc.) can act as the comparator in the cybernetic system of the game (Salen and Zimmerman citing LeBlanc, 218). However, this is limiting of the role of the player in the game, and just leaves the decision making with the player. But surely the visual representation that the players view makes their eyes the sensor? Then the decision to act, i.e. their thoughts, is the comparator. And finally the activator is the effort exerted by the player on the controller. Essentially the player can perform all three functions in a much larger interconnected series of feedback loops, so that the player's actions activate a feedback loop that has been already programmed. That then alters the game state and the player must again sense, compare and act. Considering all the intertwined feedback loops that are present in a single game can be daunting and unnecessary. However, we see that one reason that games require players in order to function as a game is because they activate the feedback loops embedded in the programming of the game.

Games as semiotic systems is a complex notion and relates primarily to meaning and nar-

narrative. However it is useful to provide a basic overview here. Games work on two semiotic levels. “First, *games can represent*. Second, *games are representation*” (Salen and Zimmerman, 364). This means that games have both an internal system (can represent) and an external system (representation). To illustrate the point let us examine how some contemporary FPS’s such as *Halo: Combat Evolved* (2001) and *Metro 2033* (2010) illustrate the health of the characters to the player. When you are being shot your screen starts to turn red (bloody), and sometimes you have a red arrow indicating which direction the damage is coming from. These indications work within the hetrocosm of the game, they make senses as directions of how to play. This “complex internal system of meaning” (364) is defined by the rules of the game and needs to be clearly established to the player (this could be through anchorage or through direct designation given in a tutorial). This internal representation allows the player to play the game in a meaningful way. Essentially the system conveys meaning of the game-play to the player through an internal semiotic system. But this is not part of the meaning that the player garners in terms of general representation and narrative. The external meaning, what the game is a representation of, is created through another system of semiotics which is influenced by context and the cultural system of the game. In FPS’ the game is a representation of a *character* involved in a violent conflict of some nature but the bloodying of the screen is a representation of the *information* the player needs to play.

There have been various attempts to examine a semiotic system that is directly related to games. Some of them are discussed and refuted by Aarseth (31). In particular Anderson’s semiotic model of games (as described by Aarseth) attempts to define semiotic values to each aspect of the game (from avatar to weapons to enemies). The problem with this is that games are emergent systems, meaning that they are never the same and are played in different ways each time. This means that a didactic semiotic approach is difficult as games are played and thus constantly reinterpreted. This paper however is not such a semiotic discussion and I will not attempt to provide a semiotic approach that is particular to games. What we do need to consider is that games can represent and games are representations.

Juul and Salen and Zimmerman’s definitions of games suggest that all the systems in games are ‘defined by rules’. On a basic level all programming is a series of rules. The rules are written in code but when they are activated they ‘do’ things: they perform actions. Those actions can have an effect on the player, the environment or the system as a whole. We have already discussed the idea of the cybernetic system and the programming ‘if’. Essentially all computer software has a similar quality to games. The code is activated by the user and becomes something more than just code. The rule responds to input, but the parameters of that what that input can be is also defined by the rules themselves. In Microsoft Word the user types on the keys of their computer. The rules have limited each key to a particular character, so when we press the ‘C key’ a C appears on the screen. We can also press the CTRL-C and

a selected portion of text is copied to the 'clipboard'. These functions are the rules interacting with our input. However, we are also aware that the rule states that the C-key will produce a C and not an F. The user's range of inputs is defined by their knowledge (however they came to it) of the rules.

The same is true in games. In Monopoly the players roll the dice and if a seven is rolled then the players know that they must move their avatar seven spaces on the board. Analogue games graphically illustrate the player's awareness of the rules and how their actions are defined by those rules. The rule states move the number of rolled dice and not more or less. The player does this, but also intrinsic in that rule is that in order to move your piece you must roll the dice. The rules need to effectively describe what results from a particular action but also, even if not directly, what actions are possible within the game. The implication here is that there needs to be feedback given to the player when interacting with the rules. This feedback is necessary for the creation of "meaningful play" (Salen and Zimmerman, Ch. 3).

Juul explains that in digital games a 'state machine' is created by the rules (56). This machine is what responds to the player's interaction. He also suggests that the rules allow for the creation of various different outcomes. Because the rules specify the win condition they also have implicitly established what the losing conditions are. This duality of the win condition creates the conflict that is present for the gamer as it offers a win condition that has embedded in it the conditions for losing. It also means that the way that the player uses the rules will allow the player to get a rich experience as they "exert effort in order to influence the outcome, the player feels emotionally attached to the outcome" (36). Essentially rules not only dictate what a player can or can't do, they define what the outcome should be and in doing so provide the player with the satisfaction of potentially accomplishing something.

It is this sense of accomplishment and progression in the game that Salen and Zimmerman call meaningful play. "Meaningful play emerges from the relationship between the player's action and the system outcome" (37) and is most successful when it is "discernible and integrated". By this they mean that each action that the player takes needs to receive feedback in the form of an immediate response from the system (discernible). The action and feedback also need to make sense within the game system as a whole (integrated). This integration should relate directly to the rules and internal logic of the system, but it should also make sense within the hetrocosm of the game. For example in when the player moves the joystick or presses left on a keyboard, they expect that their avatar will move left. The rules (code) stipulate that if the player puts in an input of 'left' the avatar will move left and not forward. This makes sense within the internal structure and the response from the games system makes the player feel like they have taken a meaningful action within the game.

Juul explains that part of the pleasure of these ‘meaningful’ choices is that they create differences (19). The decision to move left is within the scope of possible actions but is different from moving right. Both of the possible moves are created and allowed by the rules. The fact that the rules allow these different moves creates interest when playing the game. The player is seeking an outcome that has been described by the rules of the game and they are trying to do so by using the rules to arrive at that outcome. Therefore the multiple options, even just movement directions, means that the player needs to make choices in order to reach the outcome. This implies that the meaningful play that Salen and Zimmerman discuss is created by rules that essentially provide choices and routes to your outcome. Juul mentions that Sid Meier, a game designer of numerous successful games, describes games as “a series of interesting choices” (19). Juul goes on to discuss the idea of interesting choices and mental challenges and whether they are necessary in games. Juul points out that the player needs to make decisions but they need not be ‘interesting’ or ‘challenging’. I think that this distinction is not necessary. The point that both Juul and Salen and Zimmerman are making is that the rules of the game allow the player to make meaningful choices (whether they are interesting or not), and that that makes a game a rewarding and fun activity. Thus “gameplay is not a mirror of the rules of a game, but a consequence of the game rules and the disposition of the player” (Juul, 88).

To turn briefly back to the semiotics of games, while still examining rules and meaningful play, it is important to be aware of a fundamental quality of games: representation changes - rules remain the same. Throughout the playing of a game, and no matter what the fictional or visual representation of a game may present, the rules will always remain constant. This means that in some ways rules fall away, or attempt to, from a semiotic framework of interpretation. Juul makes use of chess as an example to illustrate this point (57). He suggests that no matter what you do to the visual representation of the pieces of chess the game of chess will always be played in the same way, by the same rules. So whether the rook is made to look like a castle or a rhino it will still be able to move only vertically or horizontally. The meaning of the game for the player may have shifted and instead of battling in a medieval war the players may imagine themselves part of the warring animal kingdom. The various available strategies will also remain the same. This is important when considering the unfolding of narrative and meaning in a game and how fiction and rules collide.

A final point on rules, and thus the event of playing a game, is that “rules are repeatable” (Salen and Zimmerman, 139). As an activity, as an event, games can be played over and over again. By using the same static structure of rules a person is able to play a game an infinite number of times and each game will be *fundamentally* the same but entirely different in terms

of *gameplay*. This is why when we watch a soccer match we can call it *a game*. *The game* of soccer is the rules that will be used and played in *a game* of soccer. This is what, in some ways, makes games so exciting and fun. The rules are known and repeatedly used by all players but the outcome is not guaranteed and the gameplay will change depending on the players and the situation. This relates to Juul's notion of "negotiable consequences" that he proposes in his definition of games. The reason that consequences can be negotiable is because each game will have variations; therefore the winner is not predictable. So a chess tournament is possible, not because of the strict rules of chess, but rather because of the unique gameplay arising in each game. The tournament can be won because of how a player uses the rules and what 'real world' outcome of the game has been decided upon (i.e. being crowned world champion).

It is important to note that the degree of variation depends on the game and how the rules produce gameplay. Juul has described two models for understanding rules: emergence and progression (56). The suggestion is that emergent games that have rules that are "*easy to learn but difficult to master*" (56). Chess is again the prime of example of this type of game. The rules are static but deliberately allow for many ways of playing. Some games that are emergent are less successful than other. Tic-tac-toe, for example, has only so many moves that are possible. This limitation of numbers can be quickly learnt and the game will therefore cease to be of interest to a more mature player (Juul, 60). The newer model is the game of progression. In progression based games there is a set sequence of events that the player must go through in order to win the game. Early adventure games were the first to use this model and could only really be played once because there is no possibility of variation. This model gives the game designer more control and is useful for storytelling and narrative but can become tedious for the player (73). However, Juul suggests that the combination of the two models of games is starting to become prevalent. Games like *The Walking Dead* (2011) or *Mass Effect* (2007) have a series of events that have been created by the designer, however there are moments when choices can influence the outcome. The rule states that if the player inputs X then for the rest of the game X will be true. In these cases this relates to the narrative. *Mass Effect's* gameplay is also emergent in terms of strategy and style of play. The player not only makes narrative choices but they have options in terms of weapons, combat skills and combat strategies that are used between narrative points. This means that gameplay emerges between the progressive plot.

I would like to end the discussion on a working definition of games with one final thought that relates to the playing of games. Play is a subject of research on its own, but of course it is an essential one to digital games studies.

Salen and Zimmerman

“[borrow] from the following passage in Huizinga’s Book *Homo Ludens*: ‘All play moves and has its being within a play-ground marked off beforehand either materially or ideally, deliberately or as a matter of course...The arena, the car-table, the magic circle, the temple, the stage, the screen, the tennis courts, the court of justice etc., are all in form and function play-grounds, i.e., forbidden sports, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart’ the idea of the ‘magic circle’” (94).

They note that the magic circle is only one example that Huizinga suggests but they use it as a “shorthand for the idea of the special place and time created by a game” (94). Salen and Zimmerman separate play as an activity that exists within its own time and place. If *play* is separate then *playing a game* must also be separate. Some of the suggestions that Huizinga makes for these ‘playgrounds’ are quite real spaces (the stage or the tennis court). A digital game does not have such physical demarcations but the activity of playing a game invites the player to create these demarcations for themselves. Therefore the meaningful play and any psychological connections with the game happen within a ‘magic circle’. In this ‘magic circle’ the rules of the game become all-important and give meaning to our actions.

The idea of the ‘magic circle’, a place where play happens, does however raise a question about the physical space of the screen, or rather the player’s interaction with the screen in a physical space. Does the ‘magic circle’, in the broad sense of a playground, incorporate, or come in to existence, when the player switches on their screen and sits down to play? Salen and Zimmerman do not explicitly examine the relationship between the player and the screen. Murray and Aarseth have suggestions about the role of the machine or technology in the creation of cyberdramas or cybertexts (both using the ‘cyber’ prefix to illustrate this). I am suggesting that when the player plays the game they actively move to their screen (of course with mobile gaming we move the screen towards them) and for the duration of the period of play is fixed to this position in the space created between the eyes and the screen. Though this may seem like a minor detail in the act of playing a digital game, it will become important when we look at the structure of the theatre as a place or ‘magic circle’. It also situates the ‘magical circle’ as a physical space like the stage and removes it from a purely conceptual level.

The discussion above is a very simple understanding of games. Many books have been writing about the nature of games and how they function. This paper does not have the scope to examine every aspect of digital games, or to examine them in further detail, nor would it be productive. I have attempted to highlight aspects that will be important when comparisons to

the theatrical are drawn.

Defining the theatrical is perhaps more difficult than defining games. This is in part because it is a much older media, with many branching concepts. As Halliwell calls mimesis a “family of concepts” (2002, 5), so too is theatricality a family of “concepts”. As mentioned earlier, theatricality could be used as an umbrella term that includes all performance based arts. I will briefly examine this point when exploring the definition and how it may encompass such a wide range of media.

It is important here to situate the definition in great detail. Because games are in some senses a narrative experience, or at least many contemporary games are moving in that direction, numerous parallels will be drawn to ‘traditional drama’. The term drama, as Weber argues, should not be confused with theatre and theatricality. Drama is based on Aristotle’s *Poetics* and is at its core narrative. In drama the plot and action holds primacy over everything else. Weber suggests that conflating these terms is dangerous because theatricality as a medium is much more complex and intricate than just plot and action (Ch. 1). But traditional drama does have a role in creating our understanding of the similarities between games and theatricality. As the semiotician Keir Elam proposes in his book *The Semiotics of Theatre and Drama*:

‘Theatre’ is taken to refer here to the complex of phenomena associated with performer-audience transaction: that is the production and communication of meaning in the performance itself and with the systems underlying it. By ‘drama’, on the other hand, is meant that mode of fiction designed for stage representation and according to particular (‘dramatic’) conventions. (1980, 2).

The majority of the ideas about theatricality I will be using comes directly from Samuel Weber’s seminal book *Theatricality as Medium* (2004) which examines exactly how theatricality can be considered a medium and how it functions or is ‘conceptualised’. In the text he resists providing one solitary or direct definition of the term. Rather, he suggests that theatricality is a concept that unfolds over a “vexed and complex history” (Introduction). He traces the concept’s historic journey⁷ from Plato’s Cave to Aristotle to Brecht and Derrida. His core interest is in theatricality in “an age increasingly dominated by electronic media” (Introduction). This is useful as it is not my intention to provide a single and definitive definition

⁷ Weber limits his history to a Western European history as I will in this discussion. He does not advocate that Western traditions are more important, or that Non-Western traditions are not important to theatricality’s conceptualisation. For the purpose of this research I will also limit my investigation to Western theatre and gaming. This is in part because of the scope of the research, but also because there is a direct link in terms of theoretical understanding of western theatre and the way that this has been adopted in games, particularly the link between Aristotle and the dramatic narrative often used in games.

and as it situates his study very closely to my own - digital games.

It is useful to return to Brook's definition of theatre in order to examine how it differs from Salen and Zimmerman's definitions of games. Brook defines theatre as follows: "I can take any empty space and call it a bare stage. A man walks across this empty space whilst someone else is watching him, and this is all that is needed for an act of theatre to be engaged" (Brook 1996, 1). This definition is a different sort of definition from that of Salen and Zimmerman, but it is helpful when we are considering theatricality as a broad concept, as opposed to a single medium like digital games. It needs to be more 'philosophical' because theatricality and performance has undergone such radical transformations throughout its existence and has become deeply entrenched in philosophical thought and language.

Weber discusses the etymological background of theatre in his introduction. He notes that "the term theatre has the same etymology as the term theory, from the Greek word *thea*, designating a place from which to observe and see" (Ch. 1). This 'valorising' of sight over other senses troubles Weber, as it is clear that the theatrical encompasses much more than just sight. However, the favouring of sight could "[result] from the desire to secure a position, from a distance that ostensibly permits one to view the object in its entirety while remaining at a safe remove from it" (Ch. 1). This desire though, according to Weber, is threatened by theatre because it is not such a straightforward medium. The active participation of the audience means that the medium is not so easily controlled or controlling, nor is it passive.

Like Salen and Zimmerman do for systems, Weber turns to the dictionary in order to understand the common perceptions of theatre:

"the.ater or the.atre n [ME theatre, fr. MF, fr. L theatrum, fr. Gk theatron, fr. theasthai to view, fr. thea act of seeing; akin to Gk thauma miracle] (14c)

1 a: an outdoor structure for dramatic performances or spectacles in ancient Greece and Rome b: a building for dramatic performances c: a building or area for showing motion pictures

2: a place or sphere of enactment of usu. significant events or action (the ~ of public life)

3 a: a place rising by steps or gradations (a woody ~ of stateliest view—John Milton)

b: a room often with rising tiers of seats for assemblies (as for lectures or surgical demonstrations)

4 a: dramatic literature: PLAYS b: dramatic representation as an art or profession: DRAMA

5 a: dramatic or theatrical quality or effectiveness b: SPECTACLE 1a c: entertainment in the form of a dramatic or diverting situation or series of events (their public feud made for good ~)

6: THEATER OF OPERATIONS theater adj (1977): of, relating to, or appropriate for

use in a theater of operations (~ nuclear weapons)” (Ch. 3).

From the above definitions he draws particular attention to the fact that the most common trait is that “it [theatre] entails a place in which events take place” (Ch. 3). He is also interested in the consistent use of ‘dramatic performances or spectacles’ to define the theatrical. But what most is exciting for Weber is the scope of theatre which can even include ‘nuclear weapons’. This relates to the notion of enactment and spectacle. What makes this ‘theatre of operations’ a spectacle and theatrical is that it provides a space for the audience to engage in an event of power relations that has very little direct impact on them (Ch. 3). Almost all theatrical events allow the audience to view ‘real’ enactments that signify or represent something that exists outside the theatrical event.

Within the scope of this research it is difficult to provide a working definition that would effectively cover what is considered theatrical. Instead I will provide a discussion of certain features of theatricality that correlate to the definition of digital games in various ways.

While there are ways in which the theatrical works in systemically it is important to note that not much research has been done on the systems of theatre. As Elam notes: “little has been done by way of investigating theatrical systems...The present state of our knowledge regarding the internal laws of scenic, costumic, cosmetic and most other systems is too scanty and impressionistic to allow anything resembling formalisation” (50 - 51). Elam’s project is that of [a semiotician’s](#) and the ‘scant and impressionistic knowledge’ he refers to semiotic theory. But what Elam does identify is that there are various systems working in theatre (costume, scenic, cosmetic) and that the ‘important tasks’ of semiotics will lead us to fully explore how these systems work. He also identifies a “trans-systemic syntax of the overall theatrical system” (51) that needs to be developed. For the purpose of this paper it is not the ‘syntax’ that is important but rather the ‘trans-systemic’ nature of the theatrical event.

Susan Bennett claims that “dramatic theory has largely neglected the role of the receiver, the process of audience response” (4). This means that there has been little study of the system that the audience enters, and projects their input, into. However, she does note that the theatrical experience and theory on theatre has been always acknowledged and respected the audience’s importance in creating meaning in the theatre. She proposes that “examples of awareness by the playwright of the spectator’s central role can be located in the earliest drama” (1) and she draws samples from the very social nature of theatre in ancient Greece. Thus the systematic nature of the audience and the theatrical event has been evident throughout the history of theatre, even if very specific investigations into their function had not been conducted until Bennett’s seminal work was published.

The most obvious aspect of audience reception in theatre is the systemic relationship between the actor and the audience. In Brook's definition this relationship is essential to the creation of theatre. Any such relationship creates system as both the audience and the actor become parts that are required to make theatre work. Bennett discusses the acknowledged importance in ancient Greece and she refers specifically to the social role that theatre had with its audience and how it was "clearly inseparable from the social, economic, and political structure of Athens" (2). She argues that the whole Greek social structure was focused around the theatrical event. These plays were attended by everyone in the city-state and they were the primary form of entertainment and, perhaps more importantly, were religious festivals. But Bennett believes that it is the social awareness of the theatrical event that makes it so important in the Greek community. In this sense the social system enables and is essential for the theatrical event. Its prevalence and importance may also be why Plato considered the theatrical so dangerous.

Aristotle also considered the audience an important part of the system in his model of the theatre. The point of the theatre, as he considered it, was to tell the perfect story through the theatrical, through the play. The audience was needed purely as a receiver of this information and story, much like in other media except that it was live. Essentially the audience were supposed to be told the story and then experience Catharsis. Weber describes it as such: "What I will...designate a "mythological" approach to theatre, epitomized in the *Poetics* of Aristotle—a theatre that is understood to be essentially a vehicle for the presentation of a coherent, meaningful story" (Ch. 1). In this approach the audience function in a static manner and allow the coherent story to exist by their presence. The audience is essentially there to be 'purged' through their recognition of various truths in and excellent crafting of the play (Weber, Ch. 1). Shepard and Wallis, drama theorists, describe catharsis as a "therapeutic discharge of strong emotions" and that after a 'good' play the audience is "calmer afterwards, emotionally purged" (2004, 175).

Later in the history of theatrical thought and practice the audience became, or was recognised, as a more important part of the theatrical system. Like Brook, Grotowski asks "can theatre exist without an audience? At least one spectator is needed to make it a performance" (32). Bennett suggests that post-naturalism there was an effort by theatre practitioners to include the audience in more active role. She cites Fillippo Marientti's 'Variety Theatre' as an extreme example as he would put powder in the auditorium to make the audience sneeze and itch. Meyerhold is "less extreme, but more important for his immediate influence" (8) and he challenged the authority of the text by creating free theatre in derelict building where the certain actors mingled with the audience, a strategy we also see in Brecht. These are cases of an

active attempt to illustrate the audience's engagement and often exaggerate the audience's agency. What these productions have however lead to is a shift in the theoretical conception of the audience. In more recent theatrical writings the "communication model of script-actor-audience with the communication operating bi-directionally" (Bennett, 13) has become more of a norm for theoreticians. This means that "it is clearly as important to know what is being returned by the spectator to the actor, and the actor to the script, as to know the intentions of the script in the first place. Arguably, intentions are of no consequence whatsoever" (Bennett citing Esslin, 13).

A new understanding of the system of theatre is clearly needed. This would be an external system, where the mechanics of theatre (the mise-en-scene, the script and the actors) are activated only by the external input of the audience. This means that these systems do not function without the audience, and the audience directly impacts their functioning. This works on both a semiotic level, where the audience allows physical objects to become representations, and on an operational level where the audience influences the performance. Part of the reason that this interaction and influence has not been discussed in too much detail is because it is difficult to pinpoint in a concrete manner. The audience's reactions are the inputs given to the actors in ways that are only perceptible to the actors themselves, and this happens throughout any performance and not just at the applause or boos at the end of a show.

What is also interesting about this external structure of theatre is the communication that happens within the audience as a collective. Elam neatly describes this communication:

"Audience reaction...exerts a double influence, on the performance itself and on its reception. Spectator-performer communication will affect, if nothing else, the degree of the actor's commitment to his work. Spectator-spectator communication meanwhile, usually ignored as a semiotic factor, has three main effects, important to an overall homogeneity of response: stimulation (laughter in one part of the auditorium provokes a similar reaction elsewhere), confirmation (spectators find their own response reinforced by others) and integration (the single audience member is encouraged, in consequence, to surrender his individual function in favour of the larger unit of which he is part). It is with the spectator, in brief, that theatrical communication begins and ends" (Bennett citing Elam, 24)

This means that the audience at once create a collective meaning of the theatrical event though communicating amongst themselves, and create meaning by influencing the performers.

A play is itself a system that has many pieces working together to create a complete artwork. In every play or theatrical performance there is a text (this need not be a full script, it could be a guideline which the performer improvises around) that is performed on a stage of some kind. This stage could have an elaborate mise-en-scene or simply the lights in a rock concert. All these parts need to interact with each other in order to create the performance. This system is the internal system, the logical system that is required before an audience is present. Everything needs to work within a coherent hetrocosm and function in a systemic fashion. This internal logic of a play exists in order to be interpreted by the audience, but it is still a functioning system that needs to be considered when examining the theatrical. This internal system of the theatre is given primacy in Aristotle's *Poetics* as he believes that this, the author's construction of a functioning story, is the true value of theatre (Weber, Ch. 1).

There is also a cybernetic quality within this internal structure. Roland Barthes described theatre as follows: "What is theatre? A kind of cybernetic machine. When it is not working, this machine is hidden behind the curtain. But as soon as it is revealed, it begins emitting a certain number of messages. These messages have this peculiarity, that they are simultaneous and yet of different rhythm" (Patrice Pavis citing Barthes, 210). Barthes did not extend this theory of theatre very far and it was of course deeply embedded in his semiotics, nor does it seem he developed this conception of theatre any further. However, he does start to introduce some interesting ideas. The 'hidden machine' suggests an internal system that exists without the audience (though in that state it is not 'working'). The 'differing rhythms' is also an important part of theatre and how the systems interrelate and all contribute to the overall meaning.

In theatre the actors are constantly involved in an active cybernetic system. Much like the suggested cybernetic system of a game that the player engages in, the actor does the same for theatre. They take in the audience's responses, or their fellow actors' (acting as a sensor) and analyse what to do next (acting as comparator) and then do so. This relates to many of the models of acting that focus on active decision making based on the script and what you are being presented by your fellow actors. Constantin Stanislavsky, one of the founding fathers of modern drama and actor training, suggests that motivation is what should drive the actor and inform their every decision (1989). Stanislavsky's 'method' of acting was adopted by psychologists Dyer Bilgrave and Robert Deluty (2004) and applied to an existing model of cybernetics that related to human behaviour. This model aimed to express how human behaviour inherently functioned in a feedback loop similar to the model proposed by Weiner.

Bilgrave and Deluty created their own model that related to 'will', 'action' and 'outcome' (Stanislawskian notions of acting) considered as negative feedback, reference values and environmental changes. Essentially they situated this particular model of acting within the broad spectrum of psychological and social cybernetic systems. The actor is engaging in simultaneous systems at once, as Barthes suggests of the theatre itself. They are engaging with the script, the set, their fellow actors and the audience by making decisions and taking actions depending on environmental changes they sense.

Returning to Weber we notice a more philosophical and detailed discussion on theatre. He defines theatricality as a medium about action and enactment. This means that the dramatic elements of plot and narrative do not in and of themselves hold as much importance as the way in which a story is told. This elevates 'means' of expression above content itself (Introduction). Because theatricality is about the relationship with the audience it is the crafting of actions, movements, set pieces and their function that are important rather than each audience member's interpretation and response to the story being told. Weber calls this the 'how' (how is something done) of theatre which is valued over the 'what' (what is being told). Theatricality has deep roots in creating a spectacle for the audience. The spectacle essentially involves all *mise-en-scene*, including the human body and the enactments that the body engages in. Spectacle, Weber warns, is closely linked with the theatrical and with drama but is too often confused as a substitute for the two (Ch. 1). This means that the spectacle, which is created primarily through '*mise-en-scene*',⁸ is a theatrical device that creates the relationship between audience and performer effectively.

Weber suggests that what makes the theatrical experience unique, or part of its defining features, is the gestural nature of what is happening on stage (Ch. 2). This he relates to Benjamin and his writing on Brecht's Epic Theatre. Theatre relies on the gesture of the performer. The gestures used are often what Weber calls 'citations' (Ch. 2) because they use known conventions of the human body and of natural movement to create meaning. Gestures are, while confined to the stage, always recalling a world outside yet never directly claiming they are of that world (Ch. 2). He relates this idea to Plato's cave where the audience, practically prisoners, see the shadows on the wall of their cave. These shadows are representations and are the only thing visible to the audience. In Plato's cave the audience is not aware of the existence of what is outside the cave, but we are. It is this existence on stage as a suggestion of the outside world that makes theatre unique as a medium (Introduction).

Weber goes on to say: "theatricality resists the reduction to a meaningful narrative by vir-

⁸ Weber gives the wonderful example of televised nuclear explosions. People at home are invited to witness the beautiful mushroom cloud as a spectacle, detached from the destructive nature of the bomb.

tue of its ability to signify” (Introduction). Of course any media signifies, but the real body has multiple signifying functions. In Umberto Eco’s *The Limits of Interpretation* he discusses the theatrical semiotic process. He uses the anecdote of a drunken man “exposed in a public place by the Salvation Army in order to advertise the advantages of temperance” (102). Eco surmises that:

As soon as he [the drunken man] has been put on the platform and shown to the audience, the drunken man has lost his original nature of ‘real’ body among real bodies. He is no more a world object among world objects - he has become a semiotic devise; he is now a sign, something that stands to somebody for something else in some respect or capacity - a physical presence referring to something absent (102).

Again this has similar undertones to Weber’s analysis of Plato’s Cave where the representation is a stand-in for something that exists outside in the ‘real’ world. But, perhaps more interestingly, Eco notes that the drunken man is “something that stands to somebody for something else”. Here, though he does not directly deal with it, he is suggesting that the audience creates the signification. Essentially the audience permits and forces the drunken man to become ‘a sign’. This is true of all theatricality. The audience is involved in the creation of representation because only they change the real into a representation.

Working from the above working definitions of theatricality and digital games some of the deep ontological similarities are already evident. For the remainder of this chapter I will provide a synthesis of the similarities in order to consider how games have evolved from the theatrical.

Both games and theatre are fundamentally systematic. Digital games, like theatre, have an internal static structure that operates according to the will of the author(s). This system has numerous parts and each is open to an elaborate discussion about how they function. What is perhaps unique in theatre is that the moving parts of this internal system involve real people (actors). Both media are immensely collaborative in how they are constructed and the internal system requires the work of multiple people⁹. But when operating or considered as a static system the theatrical requires the input of the actor at all times. This destabilises theatre as a closed system that can function on its own. Input is inherently required for it to work. This also means that the theatre is always temporal as the rehearsal or the run-through requires the actors to perform their actions in real time whereas the programming of a game exists outside temporal constraints.

As Bennett (1988) and Raymond Williams (1987) suggest the ‘naturalist’ theatre was an attempt to affirm the authority of the text and author. Perhaps then the early stages of digital

⁹ Of course you can have both a game and a theatrical production that is created by only one person. But this person would have to adopt many ‘roles’ in order to create the game.

games, in which the other ‘actors’ are programmed entities (NPC’s) we see a similar attempt to affirm this authority of the text. As we can see from sales records and the types of games being released now, there has been a definite movement to online games and online playing (John Gaudiosi, www.forbes.com). Here the absence of NPC’s¹⁰ and the involvement of other players makes the static logical system of the game less stable or complete, much like the basic theatrical internal system.

What is more pertinent to this discussion is the inclusion of ‘outside’ input (by outside I mean not involved in the creation of the artwork) participation in order for the work to function. Therefore the open system of both media works only through the input of the player or the actor. This is why Brook’s definition refers to the ‘act of theatre’ and Juul discusses the ‘activity’ of playing a game. The importance here is that it is not just the creation of meaning that is dependent on a reader.¹¹ Meaning in any media requires a reader to interpret and activate. But both of these media cannot operate at all without the reader.

Part of this system that involves the reader also relates to the ‘magic circle’ and the spatial configurations of both theatre and games. As discussed, the theatre is necessarily a set space, a stage. The game is also played on a set platform that allows and disallows certain means for playing the game. What both media have in common is that they function on two spatial levels. The first is the space that the reader is invited to enter in order to engage with the artwork and the second is the fictional world that is created within that space. So in the same way that the audience obeys the external conventions of a theatre¹² (silence, seated, respectful, eye-sight) the player observes the functional conventions of their platform (touchscreen, mouse and keyboard, joystick). These external conventions form the system of the spatial and determine how engagement with the media will take place. Essentially both media have rules for behaviour and participation; these will of course vary from game to game and from production to production.

The external spatial system invites, and allows, the formation of meaning and the comprehension and creation of the fictional world. In both theatre and digital games the creation of this internal world is incomplete without the participation of the reader. As Bennett cites from the writing of Rothenberg, “the audience enters the performance arena as participant - - or, ideally, the audience disappears as the distinction between doer and viewer,” (18) and it is this disappearing and Meyerhold’s suggestion that the imagination of the viewer is more important than the mechanisms of theatre ([Bennett, 11](#)), that makes their role so integrated. The

¹⁰ Not all online games lack NPC’s entirely. Rather I am suggesting that the NPC’s form a much less substantial and important role in online gaming.

¹¹ I use the term ‘reader’ here because it is a neutral term. It can encompass both the audience and the player.

¹² Because theatre has so many branches and so many feature it is difficult to isolate a few conventions that are inherent to all.

'bi-directionality' between actor and audience functions in the same way the player's input on the rules of the game does. The participation creates the event and therefore creates the meaning.

The notion of the cybernetic system is also one that bears similarities between the two media. Both digital games and theatre position the active agent (player and actor) in a position where they are constantly engaging in numerous cybernetic systems where their actions influence how the system works and creates meaning. This is important because not many other media position the reader in such roles. We can also consider that playing a game or adopting an avatar in a game is an evolution of acting. This can be seen in the embodiment of characters, the active decision making and motivations and the way that actors and players interact with the system.

There is also something interesting about Weber's suggestion of the gestural nature of theatricality. As he observes the beauty and meaning in theatre can be something as small as woman balancing on an imagined boat (Introduction). What we are attracted to is the body, the movement, and the repeatability of what we are seeing on stage and yet at the same time the fact that we are witnessing something that will only happen once. For Weber what is indispensable to this pleasure is the body. In digital games we are not responding to the body in motion and all conceivable gestures of a game are already pre-programmed by the designer. In this sense the digital moves away, almost deliberately, from the power and fallibility of the gesture. Yet at the same time games succumb to the 'how' something is done. Narrative is not a defining feature of games, fiction is. Therefore it is the way the visuals are created and, more importantly, the way that the gameplay operates that we are interested in. Meaning lies in the present, in the activity. In this way games are similar to theatre. Meaning is not reliant purely on visuals nor narrative. The constant and real time activity, the choices that occur from instance to instance presents opportunity for meaning. So meaningful play that is discernible and integrated bears the same value as the performers choices in front of the audience.

In both media the performer is reacting and engaging with scripts and rules in order to create meaning and representation. The script (in whatever form it takes) could in many ways be considered the rules of the game. Various choices that the actor makes around how to transcribe the script relate to the player's choices around manipulating the rules to achieve their goals. Many methods of acting, ranging from the more traditional Stanislavsky's Method Acting to Keith Johnstone's Improvisation, revolve around how choices create feedback and assist the actor in reaching their goals. If we refer back to Juul, both media are about 'a series of interesting choices'.

It is also interesting to consider where authority lies in the creation of meaning. If we are suggesting, or accepting, that the script is directly similar to the rules of the game, then the

author can only control the activity so far. There are various ‘progressive games’, like the early adventure games, that absolutely prescribe the nature of gameplay. In the same way Naturalism controls the representation absolutely. The absurdist playwright Samuel Beckett also controls the actors and audience with his enormous set of stage directions and legal rules around how his plays will be performed. On the other hand *Minecraft* (2011) and other ‘emergent games’ favour a multitude of game plays, and improvisational theatre or immersive theatre invites very spontaneous and loose plots.

The idea that games ‘can represent’ and ‘are representation’ is similar in many ways to the semiotic approaches that have been discussed regarding the theatre. Though we have to accept that the avatar in a game is not a real body, it is an actively controlled agent of the player. This means that it can function in a similar way to Eco’s drunken man. It comes to stand for something that is absent. In games this takes on a unique quality because it comes to stand for the performer as well as the ‘sign’ that it has been transformed into. The difficulties in drawing parallels between the media are so heavily influenced by the lack of corporeality in games.

In this chapter we examined both digital games and theatricality in some detail, while not being exhaustive. This discussion served as a starting point for a comparative analysis between the two media to explore where they are fundamentally and ontologically similar. The majority of these similarities relate to the systems that are involved in both media. Games and theatre function through a variety of system types and interrelated systems. Both are bound by rules (scripts or code) and have active agents interacting in a cybernetic fashion with these systems. Games and theatre could be considered an “informational polyphony, which is what theatricality [and games are]: a density of signs” (Patrice Pavis citing Barthes, 210). This ‘density’ relates to the complexity of semiotic functions of both media. Because both games and theatre have audio, scenic, costumed, narrative and experiential semiotic systems they become difficult and complex media to analyse.

Many theorists on theatre (Brecht, Meyerhold, Weber, Beckett, Stanislavsky to name a few) believe that necessarily theatre is a media of machinery (the stage, the set, the costumes) it makes sense that the complexity of the media needed an equally complex and technological medium to evolve. In this sense the complexity of games seems a logical step for theatrical evolution. Games are performative and exist as an activity that is engaged in specific time and place. Huizinga’s ‘magic circle’ is a useful way to consider where both theatre and games exist, as cousin perhaps.

Chapter 3 - The Role of the Gamer

Much of the relationship between digital games and the theatrical rests in what experience the reader will receive from the artwork. In theatre this is the audience and in digital games it is the player. The other 'human factor' in the activity, which is the live event, of theatre is the actor and how they produce and receive meaning regarding their own actions and choices. In digital games the player is also the actor. This ambiguity of the role of the player is the central discussion for this chapter.

I would like to begin by drawing particular attention to the activities that the player is engaged in when playing a game. This relates directly to Espen Aarseth's notions of 'ergodic literature' and 'cybertext'. The agency that is enacted by the player allows them to create and carve their own narrative, meaning and experience of every game they play. This creation of meaning is achieved through meaningful play, interesting choices and motivational gameplay and rules. "The player's pleasure of influence" (Aarseth, 4), which encompasses all of the above, will be explored alongside that of 'the actor's pleasure of influence', which *potentially* covers all of the above.

Part of understanding this pleasurable influence on the artwork's system is to understand the responsibilities and limitations of interaction. By responsibilities I mean: the degree to which the actor needs to be responsible to the audience for the creation of coherent meaning. The same applies to the player and to what extent their play needs to be guided in order to be a satisfying experience. Both actors and players also have inherent limitations that are put on them by the author or designer. These limitations have varying degrees of restriction and choices depending on the project and *how* the player or actor chooses to engage with it. The limitations are essentially the rules in a game and the script and staging in a theatrical event.

As theatre needs both the actor and the audience it is also important to examine how the audience has agency, or to what degree they have agency. Though Aarseth denies that the theatrical audience has any real agency (3 - 4), I would suggest that the limited influence that the audience has over the actor, discussed in detail by Susan Bennett, can be considered nothing but a form of agency. Whether or not the nature or extent of agency that the audience has is agreed to, they are engaged with the semiotic and narrative systems of theatre, and therefore create meaning. The player is also creating and receiving meaning from their engagement with the game. Perhaps in this way digital games are an evolution of the theatrical because of the agency that is allowed the person receiving meaning. Murray suggests that participation in the same manner of the player in theatre breaks the illusion and we as audience would not be able to immerse ourselves fully if we were on stage (101 - 103). Yet if we look at the evolution of theatre and performance art we can see more active attempts to give the audience the 'pleasure of influence'. Murray does propose that the screen creates a fourth wall and allows the player to both control the avatars in a game but also be distant from them. In this way the player can very much be separated from the 'psychological assimilation' of

acting or performing.

In this discussion on the role of the player I will also briefly touch on Plato's notions of mimesis and the dangers of the theatre to the actor (this will be done by using Halliwell's analysis of Plato's work). This is important because theatre is very much linked to digital games in that games have gone through the same criticism and fear that theatre has been subjected to. Because both games and theatre are performative there has always been scepticism around what is happening to the player and the actor when they embody characters that are not their own. This links the two media closely. It also links games to acting in general and to the process of filming a movie where the actor embodies a character.

What is different about theatre and digital games from other media is the fact that they are live events. There is less ability to craft the perfect moment and piece of acting because the theatre and the game happen in real time and represent the 'here and now' (Weber, Ch. 3). This idea of presence, both physically real and happening in real time, is a primary concern of theatre. Weber suggests that what the digital does is "transform[s] traditional experiences of space and time, of distance and proximity, and hence of bodies" through the speed and 'velocity' of information transfers (Weber, Ch. 3). The transformation, which he says can 'abolish' or 'relativize'¹³ the 'experience of space-time', means that electronic media becomes devoid of the 'presence' that is essential¹⁴ to theatricality. Though this denies games from being theatrical, it does not mean that this lack of physical presence is not a necessary evolution of theatre. It is also a limited and reductive understanding of presence in digital media.

The discussions above illustrate some of the complexity of the role of the player in the gaming system, especially considered in relation to the theatrical. During the course of this chapter I hope to examine these questions in order to understand how they contribute to our understanding of digital games as an evolution of the theatrical.

Ergodic¹⁵ literature is a term coined by the Espen Aarseth in his book *Cybertext—Perspectives on Ergodic Literature* (1997). He suggests that:

in ergodic literature, nontrivial effort is required to allow the reader to traverse the text. If ergodic literature is to make sense as a concept, there must also be nonergodic literature, where the effort to traverse the text is trivial, with no extraneous responses placed on the reader except (for example) eye movement and the periodic or

¹³ Weber suggests that while this is perhaps destructive to certain aspects of theatre/theatricality, it is a point where new understandings of spacio-temporal encounters could be created.

¹⁴ Weber does acknowledge that the discussion is more complex and unusual than just this but maintains that theatricality is at odds with electronic media and therefore has to find its own 'role' or 'place' in an electronic virtual world'.

¹⁵ Aarseth also discusses the etymology of his term: "[Ergodic] derives from the Greek words *ergon* and *hoods*, meaning "work" and "path"".

arbitrary turning of pages (1).

Therefore in order for meaning to be created in ergodic literature the reader needs to do something, they need to make meaningful decisions. This relates directly to games where the activity is only possible through meaningful play which encompasses decision making.

Aarseth points out that ergodic literature relates to the process of reading particular texts and is not medium specific. So there are examples of 'paper-based' texts that Aarseth does accept as ergodic (Aarseth mentions Marc Sporta's novel *Composition No. 1, Roman (1962)*). This is because he proposes that ergodic is a phenomena of 'reading' a text where the "user will have effectuated a semiotic sequence, and this selective movement is a work of physical construction that the various concepts of 'reading' do not account for" (1). Cybertext then becomes the mechanical functioning of any media where ergodic activities are necessary in order for meaning to be created.

The person playing any game is exerting a 'non-trivial' effort to play the game (clicking the mouse, moving the joystick, making choices and decisions), they are by definition engaged with an ergodic literature. Games also fall under the concept of cybertext because they are potentially considered a cybernetic system where feedback is an essential part of engaging or reading the text and 'extranoematic responsibilities' are thus expected. According to both the pretexts for ergodic literature and cybertext, games qualify. This means that the reading of the text (by reading I mean the creation of meaning) is a direct result of the actions of the player.

What is important to Aarseth is the concept of the "player's pleasure of influence" (4). He proposes this motivation for reading a text in opposition to that of traditional media (including sports which is a theatrical event) where the "the reader's pleasure is the pleasure of voyeurism" which is position of 'safety and impotence' (4). In a game, or in any ergodic literature, there is a belief that the actions of the reader will allow them complete narrative control, which Aarseth accepts is often 'illusory'. Here he is hinting at the author's control that is still necessarily present in the creation of the cybertext. The player, rather than creating meaning from nothing, is "invited to 'complete' the text" (20) with the agency that a cybertext allows.

Aarseth's understanding of the internal and external systems discussed earlier relates to how they are performed and the various material levels that they operate on. He proposes that painting is signification that only has one level (the painting itself) whereas film may have two (the material film and the projection of the film) (40). These levels however are 'trivial' as the 'transformation' is 'deterministic'. However, in the cybernetic system the first level, in the case of games the coded level, "can only be fully experienced by way of the external, expressive level" (40). This analysis of Aarseth's is followed by a dismissal of the play text as such a coded level because of the "*extrinsic* status of a performance vis-a-vis the play script"

(my italics) (40). Though in some sense the dramatic script is in many ways a form of traditional literature that does not intrinsically require performance, Aarseth's understanding of script is limited and he seems to be dealing with the dramatic as opposed to theatrical. In the theatrical the performance text¹⁶ is not a structured internal form that exists on its own. It too is an *intrinsic* part of the performance that is only fully experienced when activated by the actor and read by the audience.

If we accept difference between performance text and dramatic text as a means for analysing theatre, then the performance (regardless of the audience) would fall into a similar cybernetic system that Aarseth is proposing. The actor would become the user and their active effort would create the meaning of the artwork. In order for the actor to 'traverse' the various systems that make up the script or text and create a performance text, they must exert at all times an extranoematic effort. In this way the player could be seen as similar to the actor. Both are engaged in real time activities in order to create a text. But in theatre there is a then a third level, that of interpretation, which the audience engages in (even if this is more complicated than just observation and interpretation).

The audience does not have the same kind of agency of the user of the cybertext. This cannot be denied, at least not in traditional theatre. Bennett discusses how the audience in many ways is engaging with actors, spurring them on and encouraging them, or demeaning their performance (12). Aarseth dismisses this from the ergodic because it lacks control over the narrative and the outcome of the theatrical event. Again I think that his view of the spectator is somewhat limited. The implication of Aarseth's 'powerless reader' is that the outcomes of cybertext need necessarily be in controlling the narrative. It is true that the audience cannot ask "let's see what happens when I do *this*" (4). But the outcome of the theatrical event is not only determined by the narrative or decisions on what can and can't be done within that narrative. Instead, based on the 'how' of theatre that Weber proposes and the gestural nature of the theatrical, the audience's influence on the actor can be considered to be a type of agency. The implications of Bennett's study into theatre is that we accept that the actor's choices, which have a direct influence on meaning and narrative, are determined to a degree by the audience that is present at any given performance.

A final note on the ergodic perspective relates to the aesthetics of cybertext. Aarseth does not believe that adequate models exist in literary theory for analysing aesthetics and interpretation in cybertext. Here he refers to Umberto Eco's discussions on "works in movement" (Aarseth citing Eco, 51) as a possible example or the closest to what he envisions. These works have "unplanned or physically incomplete structural units" (51). What this means is that in the interpretation or traversing of the text there are places where choices that the user

¹⁶ The performance text is the semiotic means for analysing a live performance. Notions about the performance text can be seen in both Weber and Elam.

makes allows for many interpretations. Aarseth proposes that central to the idea of the cyber-text is that it is open to various interpretations. What is perhaps more interesting is the idea of the 'physically incomplete unit'. Within most systems the various units or components need to be independently fully functional in order to create a working system. But games and theatre do not have that. The user, and the physicality of the user's choices and actions, completes these structures and therefore completes the system. All theatre is necessarily a work in movement because of the body of the actor and there will always be room for the unplanned as the body is inherently fallible. The actor makes different and unique choices with each performance, no matter how rehearsed the production is. The example that Eco gives is of operas where the "performer must choose a sequence from several alternatives" (52). Here the author provides the variety of structures and alternatives, in theatre and games they are created by the player/actor.

An important way of analysing and understanding the role of the actor in the theatrical event, and in the game, is to look at the workings of mimesis. Drawing particular attention here to Plato as he has established much of the thinking around mimesis, I hope to examine means for considering what the actor and the player is doing during a game of performance. This analysis will in many ways be a synthesis of Stephen Halliwell's excellent examination of Plato's *Republic* which has been one of the foundations of much thought of mimesis.

The primary reason for Plato's ultimate dismissal of mimesis from his 'perfect republic' is in relation to education, primarily of the 'Guardians'. Socrates¹⁷ accepts that many people rely on poetry for wisdom and knowledge, it is the 'most influential forms of discourse in the traditional life of the polis' (Halliwell, 49). The idea here is that poetry is always performed and, as discussed earlier, this reciting of poetry was a very influential social aspect of ancient Greek culture. Yet Plato, when examining mimesis, concluded that mimesis is a subclass of *logoi*. This means that all mimesis is essentially a 'falsehood' or 'fiction'. Therefore Plato considers the 'quasi-propositional' nature of poetry, or at least in the way it was regarded, as concerning. For him the belief in poetic wisdom can ultimately lay too many impressions on 'malleable minds' that regard it as knowledge. This cannot be allowed especially for the guardians of society. Though this is an extremely dated mode of thinking about mimetic arts, it does still hold some value today where people believe that games and television influence the young (or future guardians) into committing crimes.

Because this sort of mimesis was performed, Plato believed that this "narrative through mimesis" (Halliwell, 51) was problematic for the performer. When a person is 'acting like' or performs 'self-likening' to characters in a story they ultimately start to form 'psychological assimilation's' with the characters (51-). This means the reader/performer steps imaginatively into the role of the character. This application of imagination on an art form that de-

¹⁷ This is the Socrates that Plato used as his protagonist in *The Republic*.

clares itself as a source knowledge and wisdom is dangerous for Plato as the reciter becomes 'like' the character. This would be problematic for his republic if those that are supposed to be moral pillars (the guardians) start to '(re)enact' imaginatively characters that are potentially immoral or flawed. Yet beyond the moral implications, in Plato's *Republic* every person has one assigned role. A carpenter is a carpenter for example therefore the duality of a person performing and assimilating the behaviour and function of another role is problematic (51).

An interesting aspect of this assimilation is 'character formation through habituation' (Halliwell 54). Plato here suggests that even through gestures or behavioural qualities a performer starts to divide himself into the 'character' and his true nature. Plato makes the suggestion that engaging in 'dramatic mimesis' should be a 'rehearsal for real life' (54-). This means that what people learn, or do, when reciting poetry will become habits that affect how they behave in the real world. I would like to engage an example from contemporary thought that emphasises this position and illustrates how Plato was hinting at questions that would last throughout the history of art theory, at least in the West. In *The Myth of Sisyphus*¹⁸ Camus talks about the 'absurd man'.¹⁹ One example of such a figure is the actor. For Camus the actor is a person who adopts other characters and makes them part of himself. This division of self and adoption of habits and gestures is exactly what Plato feared. Camus praised it. The player in a game is an example of The Absurd par excellence as you become the character in the mimetic world for as long as you are playing.

Discussing games and the skills that are needed to play them, or needed to progress through them, Juul suggests that the player learns habits and behaviour patterns within the game (95 -96). For Juul the game changes the player because of the repertoire of skills that the player uses and that many games are constructed on. Though he does not make any claims that this is transposed to behaviour outside of the hetrocosm, there is an interesting link to acting and to Plato's idea of mimesis. If we look at many proposed methods of acting and training, we notice that there is a similarity in the idea of learning, adoption of characters and progress. Stanislavsky relied on sense memory where the actor trains extensively to create a repertoire of gestures that they can use in their performance. Misener (1987) and Grotowski (2002), though they have completely different goals, structured their training as an ever more complex skills based model. Though this line of argument is drifting away from the mimetic, what is important is that the theatrical, according to Plato in a negative way and to later actor trainers in a positive way, relies on 'formation of habituation'. The same is true of the player, thus linking the player and the actor in how they behave within the game and

¹⁸ This book is considered the founding manifesto of Absurdism, a philosophy that has been incorporated excellently into dramatic art (mimesis) by writers such as Beckett.

¹⁹ The Absurd Man is a complex idea that would be impossible to sum up in this essay and still be true or fair to Camus' idea. However one could consider the absurd man to be someone who is aware of life's meaninglessness and instead of seeking a comprehensive meaning rather he consciously engages in creating his own meaning or value in life and living.

the theatrical and in the functions this behaviour has.

This application of imagination in any art form is dangerous for Plato as the performer begins to become like the character. We have seen in recent years the media attacking digital games with the suggestion that players embody their characters outside of the games they are playing. Discussing the merits of these attacks or counter arguments will not be useful here. It is important to understand how mimesis is similar in both media and therefore they induce the same fears. Because games are particularly immersive, the creation of a character other than oneself is easier and more appealing than in theatre. It is much easier and much more accessible for any player to become a character than it is for an actor. It takes only a few minutes in RPG games like *Skyrim* (2011) to create your character (this includes the appearance, the characteristics and the strengths and weaknesses). The process for the actor is much longer. Misener and Stanislavsky's methods for example take months of training to create a single character. Therefore Plato's fears of the psychological assimilation are probably better suited to the easy character creation of digital games than to that of Homer. However, what the ease of character creation and the subsequent psychological attachment suggests is that digital games, especially those that are narrative based, could easily be considered an evolution of the actor's job and function.

The evolution of performance that is inherent in games can be examined or justified in various ways. One of the easiest is that of the rehearsal. When rehearsing the actor is continuously trying to improve their performance for the final viewed event. Here again it is useful to return to Salen and Zimmerman's notion of 'repeatable rules' (139). Because the rules of the game are repeatable, playing a game in some senses always includes the act of rehearsing. Of course often the rehearsal and the actual performance of a game are the same thing, which again adds an ambiguity to games as a model of performance. But because the player can repeat the game, and repeatedly use the same rules to different effect, they are essentially, like the actor, preparing themselves. It could be said that every time you try and get a top-score in *Pac-Man* (1980) you are essentially rehearsing for when you do get the top score. To refer again to soccer, training is using the repeatable rules of the game for the game event.

The history of games has progressed like the history of theatre in certain ways. The early actors did not rehearse, and if they did it was only once on the day of the performance. In early games like *Pong* (1972) the player(s) did not have an introduction to the game and they did not have a rehearsal period. Rather they played the game and either won or lost. This changes with the invention of the 'save-game' function. In numerous places Juul (2004; 2005) has discussed the issue of the invention and the use of 'save game' function. He argues that the ability to save games disrupts the player's immersion in the game by radically altering the sense of game time (2005, 111). However, he does concede that the scope of current games does mean that the player cannot sit for the length of time that is required to play a game in its entirety. Theatre rehearsal processes have also grown considerably. As mentioned above Stanislavsky (1989) and Misener (1987) introduced months of rehearsals and training.

Grotowski's (2002) training was excessive long and laborious, where the actor would repeat exercises daily in order to be physically and mentally skilled. The save game, along with the repertoire produced by playing various games, means that the player is essentially rehearsing a game as they can return to a particular point to repeat it in a better fashion in order to complete the game satisfactorily.

In addition to the ambiguous relationship of rehearsing and performing at the same time, , games have also introduced another function to allow their actors a rehearsal period. Contemporary games generally have a tutorial or introductory level that does not count substantially towards the progress of the game as a whole. These introductory levels allow the player to become familiar with the rules (script) and how they can use the rules and, if we accept Salen and Zimmerman's definition of games, also to understand what goals the rules have created for the player. This can be seen as a similar evolution to that of the theatrical and is also suggestive of the fact that the player is an actor who needs to rehearse in order to produce a good performance.

Artaud, in *The Theatre of Cruelty (First Manifesto)* (2010), suggests that the actor is the "prime factor" in theatre but that they have been "rigorously denied any individual initiative" (76). This is because the actor has been "raised to the dignity of signs" (72) and therefore is no longer representing himself, rather he is a tool to be used in the theatrical performance for the audience's benefit. Artaud suggests that the actor works in "spatial expression" that mobilises the "powers of action" and is caught somewhere between thought and action (68). What Artaud wanted to achieve in his lifetime was to create "ways of recording" (72) the gestural language of theatre. He wanted to create a shorthand that would be able to assist actors in understanding which ways to use the body to affect the audience. The game designer's creation of rules that allow the player to do certain actions has, in a way, completed what Artaud had hoped to. The rules describe the potential gestural language and the actor chooses which ways to enact them.

Considering this we can illustrate some examples of how the gestural actions have become learnt by gamers. Ways of playing games have become a familiar technique, a means of crafting much the same way that an actor learns to project or control their voice. Games of the same genre all have particular ways of being played, ways of exploring their fictional world and developing your character. The term 'WASD controls', for example, is a seemingly meaningless one. However, it relates to the keyboard keys that are used to control your character/avatar's movements. To the player it gives an immediate knowledge about how the game is played or how one is supposed to perform in the game and even an indication of the type of gameplay that is to be expected from the game. This codification of controls for avatars then is another way that performance becomes embodied in the gamer. This language and accompanying technique gives the player the same level of control as the performer, they are aware of how to achieve their goals using the techniques known to them. It is part of the

game's linguistics which, as in theatre, are an important part of creating meaning and it could be conceived that programming a player's potential performance is equivalent to Artaud's notion of recording gesture.

The performative quality of games, or players adopting the role of the actor, can also be seen in much more obvious ways. For example gaming has become a sport. In Korea *Brood Wars* (1998), and more recently *StarCraft 2* (2010), both real-time strategy (RTS) games have become a widely televised sport. Big events are hosted where gamers compete against each other and the performance is televised to a paying public. The World Cyber Games is a tournament including multiple games that has been hosted each year since 2000. In this way the player most certainly becomes a performer as much as a sportsman is a performer. They are also playing for monetary gain. In this instance there is no ambiguity about the role of the player. The game now functions as a sport and not as an art object for the individual's interpretation. In this instance the player is just the actor. The spectators (whether at the event or watching it televised) become the audience for both the art of the game and the performance of the player.

Performance and theatre demands a public audience and a performer in a literal sense with a shared space and time. Even theatrical pieces that test or push the boundaries of theatre and performance art have both an actor and an audience. How then can a medium where the spectator becomes the performer be considered theatre or performance? Marvin Carlson (1996) argues that a 'performance' can have an audience of one (i.e. self watching the self). This would of course instantly make digital gaming a performance. But Carlson's definition relates to performance in a much larger phenomenon. For Carlson all human activity could "potentially be considered as 'performance', or at least all activity carried out with a consciousness of itself life is a performance" (4). In such a way all play is performance and playing a game to be better at it, or to beat your high-score is to measure your own performance. However, as seen from our definition, this is not considered theatrical.

In performance art and contemporary modes of theatre, Marina Abramovic's *Rhythm 0* (1974) is a prime example of exploring the participant as performer and audience. In *Rhythm 0* the artist presents an art object, or site for meaning, that the audience is able to interact with in order to create meaning. In this case it is Abramovic's body. She presents the audience with a series of objects and allows them to carry out whatever action they wish on her body. The artist becomes passive and the audience is given agency to create meaning on (or in) the offered site. Digital games work in the same way. The designers create a site for meaning, admittedly a more crafted one than Abramovic's, and allow the audience to experience it. The game designers create fully-fashioned fictional world, a 'heterocosm', and invite the audience to become active agents and assist in the creation of meaning. In this direct comparison it is obvious that in both *Rhythm 0* and digital games the audience becomes situated in an ambiguous role (the one is deliberate and the other inherent).

To refer back to Eco's notion of the theatrical where the performer's body becomes "something that stands to somebody for something else" (102) we can see that there is a separation for the performer between what *they represent* and what *they are*. In some ways this *separation* is what allows the performer to be an audience member as well as the performer. Weber describes theatricality "not as a medium of representation, but as a medium that redefines activity as reactivity, and that makes its peace, if ever provisionally, with separation" (Weber, Introduction). This way of viewing the theatrical is entrenched in the work of Walter Benjamin, whom Weber cites extensively. Here separation relates to the gestures of the performer and how these gestures create a distinction between the body, representation and "muthos" (plot) or meaning (Ch. 1). What it does allow however, is for a clear distinction then between the player as an actor and as the audience. Because there is necessarily a distinction between the actions of the avatar and the representation that is produced from the action, the player can invest in the actions while still creating meaning or interpreting the game's representation. Like in *Rhythm 0*, there is a separation between the actions of the audience and the meaning they derive, a distance from the performance.

What is also important regarding separation is that the characters we play are not ourselves. Murray, citing the psychologist Sherry Turkle, suggests that what is interesting about cyberspace is that it creates a liminal space, or a transitional spaces (99 -101). These liminal spaces are important because they are never actual representations of ourselves and rather remain characters through which we can express ourselves. Acting works in a similar fashion where the character has elements of self-expression but is always outside of the self. Quoting Winnicot, Murray suggests that important to "'transitional' experience [is] fact that 'the real thing is the thing that isn't there'" (100). This "paradoxical' experience of keeping the "virtual world 'real' by keeping it 'not there'" (100), is important because it allows us to maintain a separation from the heterocosm while still participating. This is reminiscent of the theatre where the sign, the human body or the object, and what it represents is 'something' that is 'is not there'. The human body and the set are 'real' but through the representation of theatre they become unreal compared to what they represent. This allows the audience distance and also allows the player to become the performer and still maintain a distance from themselves.

Both Murray and Laurel suggest that separation in digital games is enabled by the screen and the 'fourth wall' that this creates. Murray proposes that the only way that participatory digital narratives work is because of the "discovery of the digital equivalent of the theatre's fourth wall" (103). The digital fourth wall is a relationship between the creator and the participant where the creator leaves clues that the digital is always an artifice (105). The example Murray draws is from *Taz in Escape from Mars* (1994) where if the game is paused for a period of time the lead character (the avatar you control) "glares out from the screen and begins to tap his foot and wave impatiently" (105). Here the separation between the player as actor and audience is clearly defined. The avatar is both "a puppet controlled by the player and [a] written character" (105). The digital fourth wall is an awareness of the artificiality of the digital and an acceptance by designers and players that the player is ambiguously situated

as both the actor and the audience.

Murray goes on to discuss various other ways of structuring digital games and experiences that invite the player to be the audience member and actor. She suggests that one way to structure an experience is as a “visit” (106). Her primary example is that of an amusement park ride, but she also discusses “screen-based electronic environments” where “the screen itself is a reassuring fourth wall, and the controller (mouse or joystick or dataglove) is the threshold object that takes you in and leads you out of the experience” (108). This allows “the participant’s actual movement through real space [to] bring corresponding movement in the fantasy world” (108). This creates a direct gestural relationship between the player and the avatar making the player the actor. The use of a piece of hardware and the screen also allows and actively promotes distancing from the game’s character which allows the player to be in a position of control and reception.

Finally regarding immersion Murray suggests that the avatar becomes like the mask used in the spectacle (112). Because “in digital environments we can put on a mask by acting through an avatar” (113) we are able to limit our investment or our belief in the reality of what we are doing. This creates anonymity and allows the player to actively engage as a character and therefore actor. Murray calls this “collective participation with role[s]” (115). She suggests that the mask is particularly useful in online role playing games as it allows you the opportunity to talk in character but also to comment as the player. The mask is then able to be worn and taken off at any moment, helping to iron out an understanding of the functioning of the player’s ambiguous role. Role-playing games generally have ‘character sheets’ that are either presented to or created by the player. These character sheet will have attributes and goals or objectives that are presented to the player, they must then use the rules to try and attain these goals. In this way it is similar to an actor playing a character. Most acting training is goal orientated. Your character is given an objective and you must ‘act’ to achieve it. As Weber suggest of Aristotle’s vision of theatre is that ‘character is action’ or rather it “links praxis to bios, ‘action’ to ‘life’...the association of the two seems designed to bring out their unifying function” (Ch. 1). Then it could be concluded that whenever a written character with a goal is presented to the player they are asked to act and through the choice of action reveal the character fully and inevitable the plot.

Laurel, discussing dramatic representation through Aristotle’s causality model, notes that:

In the Aristotelian view, the object of a dramatic representation is not character but action; Hamlet represents the action of a man attempting to discover and punish his father’s murderer. The characters are there because they are required in order to represent the action, and not the other way around. An action is made up of incidents that are causally and structurally related to one another. The individual incidents that make up Hamlet—Hamlet fights with Laertes, for instance—are only meaningful insofar as they are woven into the action of the mimetic whole. The form of a play is man-

ifest in the pattern created by the arrangement of incidents within the whole action.
(Laurel 2003, 57)

On this basis she proposes that in games that rely on dramatic representation we do not know where agency lies. That is, are we controlling the avatar or is the avatar controlling us? Who is the agent for whom? In *Pac-man* it is clear that the player is the only controlling power as Pac-man has a very limited 'written character', one that has been given few internal or external traits. There is only one action that Pac-man can complete: eating. But in *Mass Effect* the character has so many traits, 'internal and external' that are described and forced on the player. No matter the route that the player wants to take in terms of character, in *Mass Effect* you are a soldier and you are a violent man/woman. This internal trait defines the actions the player can take, and thus how the player represents Commander Shepard (*Mass Effects* protagonist). The question becomes, based on the structured plot, does the player become an actor who completes certain actions because they are embedded in the action defined by plot or do they complete actions defined by internal traits of the character? This is a complex matter that I do not have the scope to discuss fully. But it does present an interesting way of thinking about games. The player, in this model, is the actor who is being directed by the game designer(s) whether that is through plot or through the construction of character.

There have been many new theatrical experiences that have a similar principle to that of games. Some of these arose before digital games grew into the complex medium that it is now and some of these could be considered factors that aided digital games in evolving from the theatrical. As mentioned the Abramovic and many other performance art pieces deliberate challenge the role of the audience. Murder mystery evenings, which are in many ways role-playing games, invite the audience and actors to occupy the same space and the non-trained audience are given character cards and a role within the mystery they must act out. More recently Punchdrunk, a UK based performance group, staged *Sleep No More* (2011) a site specific piece of immersive theatre. A warehouse in New York City was used as the site and every room had set decoration. The audience were made to wear masks and allowed to explore the fictional world as they saw fit. The actors were the only people not wearing masks and the audience could follow these performances or they could ignore them. This immersive experience gave the audience agency in how they explored the hetrocosm, but they still had no agency over the plot. The ability to 'traverse' the site of meaning, which in this case is the set *and* the performance²⁰, makes this type of theatrical experience almost ergodic. Experientially only the theatrical and digital games allow for quite the same exploration of space. The readers are given agency (to varying degrees) and thus become performers while still being the audience. Laurel proposes that "we can see ways in which human-computer activity has evolved, at least in part as drama's attempt to increase its sensory bandwidth, creating the technological siblings of the kind of participatory theatre described above" (47).

²⁰ Bernard Dort proposes that "the performance is the actual site of meaning" in a theatrical event (63).

In 1941 Mukarovsky proposed that:

[T]he roles of the actor and the spectator are much less distinguished than it might seem at first glance. Even the actor to a certain extent is a spectator for his partner at the moment when the partner is playing; in particular, extras who do not intervene actively in the play are distinctly perceived as spectators. The inclusion of actors among the audience becomes quite apparent, for example, when a comedian makes a co-actor laugh by his performance. Even if we are aware that such laughter can be intentional (in order to establish active contact between the stage and the auditorium), we cannot but realize that at such a moment the boundary between the stage and the auditorium runs across the stage itself: the laughing actors are on the audience's side. (Bennett citing Mukarovsky, 21)

This notion of the 'internal' audience is useful for understanding how digital games position the player as an actor. The player may encounter NPC's or other characters that they actively respond to as individuals. The idea of 'sides' of a performance that Mukarovsky is suggesting is also interesting as the player can't help but shifting from the character's side²¹ to the audience's side. What then is challenging is the question of where the player places their ultimate allegiances. Returning to Aarseth's interpretation of Anderson's semiotic model for games we see how the NPC's are put into a category titled 'actors' (32). The model defines the 'actor' as having 3 out of 4 possible traits (permanence, transience and activeness) which is the same as the 'interactive' (which is the avatar or player character) except without 'handling' (33). This means that the context of the game and this model the interactive is an actor with player agency. The 'handling' suggests that this is one of many actors in the game, but it also means that interpretation is actively required (as opposed to programmed which is AI) and thus situates the player as the audience.

It is also important to consider how online gaming affects the position of the player, or reinforces the theatrical quality of games. To begin with the suggestion that theatrical requires a ~~psyphysical~~ presence is inherently challenged by games. Though I have suggested that this is counteracted by the activity of the player and the feedback, which can only exist with an active presence, games are still a solitary affair, especially if the player is one actor sharing the stage with NPC's. Online gaming, especially MMO's or²² MMOG's, allows the player to have feedback from the system and from other players. The NPC's are replaced²³ by other players who have their own set of goals and strategies. This then starts to resemble an ensemble and the work of the actors combined. Interestingly Murray identifies the theatrical and ambiguous nature of gaming in the example of analogue role-playing games (which share

²¹ It may be better to call these 'sides' perspectives.

²² Massively Multiplayer Online (Game).

²³ In many MMO's there are both NPC's and players.

a similar gameplay model to MMO's) when she says "players are both actors and audience for one another" (42).

With the creation of multiple audiences a complexity arises in that have very differing desires and expectations. Beckerman's writing on the theatrical suggests that this is inherent in the theatrical event as it is a "three-way communication: between the play, the individual and the collective audience. The play projects doubly, to each member of the audience as an individual, sparking his or her private memories, and to the audience as a whole, in that distinctive configuration that it has assumed for a particular occasion" (Beckerman, 133). In the online game the player ultimately performs to make a memorable experience for the collective, but they also perform to complete their own goals. The 'distinctive configuration' in this instance is from anywhere in the world, but as Weber suggests this "experience of space-time" is "relativized if not abolished" by the digital and this impacts on the "opposition between presence and absence as well as to that of proximity and distance in the situating of bodies, especially living bodies" (Ch. 3). Thus the digital, inherent to its speed and technologies, creates a new configuration for the collective audience that come to experience the theatrical of a game online. Yet this means that the audience is still situated in a position of collective reception of the meaning of the game.

Salen and Zimmerman's study of the systems of games and the three levels they propose also implies that the player is situated as the audience. Salen and Zimmerman suggest that there are three ways of looking at the systems of a game. The first is the logical system (the rules) and this belongs to, and is created and activated by, the game designers. The experiential system is what happens when the player plays the game, when they are in the position of the actor, engaging with the logical system. Finally there is the cultural system. By establishing a third system, a system that is influenced by the context of the player and the event of the game, Salen and Zimmerman are establishing the player as an audience member. As with a reader engaging with any medium, the context where they read the work and the context of their own background influences the reading and the possible interpretations of the work. As Salen and Zimmerman make clear, this model of three levels is a way of thinking about particular aspects and none of the systems should be considered to be fully functional without the other. So the context of gaming affects the player's actions as actors and interpretation as audience.

The agency of the player and the role of play within the activity of a game warrants a whole paper in itself. The same could be said about the theatrical and the audience. This chapter focuses rather on highlighting some of the ways that the theatrical and digital games are similar and, more importantly, how in the event of playing a game the player's role is that of both an actor and the audience. In this way, and through examining some of the similarities of development between theatre and games, conclusions can be drawn regarding how digital (and analogue) games have evolved from the theatrical experience.

In many ways this evolution (within theatrical experiments as well) is about creating an equality between the arts and the role of creation in art. As Benjamin suggests in *The Work of Art in the Age of Mechanical Reproduction*, “at any moment the reader is ready to turn into a writer” (2007, 232). Benjamin was talking about the printing press and how it made equal the art of writing. Digital technologies of games allows for or creates a spaces where ‘at any moment the audience is ready to turn into an actor’. The boundary between the actor and the audience has been challenged by performance art and these roles have been deliberately blurred. The technologies of the digital games (and the anonymity it provides) allows anyone to become an actor and explore fictional worlds as characters that are separate from themselves.

The systems of games encourage and promote a necessary duality of position for the player. The screen, the digital fourth wall, creates separation that allows the player to collaborate in the creation of meaning while still receiving and interpreting the artwork. Both theatre and game events are live and meaning is created in front of an active audience. Digital technologies and the speed of unfolding data means that the player can be actively involved with many players from around the world. Playing a game is then always live, but it lacks a physical presence. Perhaps in order to make equal the role of the reader, and to allow them to become an actor, the human body had to be abandoned. The cybernetic system and the constant feedback from game systems or other players means that there will always be a presence (this could be the individual player or the collective of the online game) even if it is not physical. But maybe this could mean that necessary to the evolution of theatre is newly conceived space-time relations that develop from the speed of the electronic. Presence is now made through engagement with machines, not by the visibility of a body in action.

Games, which are a form of ergodic literature, position the reader as ‘unsafe’ (Aarseth, 4). This means that they are not passive receivers of meaning rather they create meaning as they ‘traverse’ the text. In traditional theatrical forms the actor is not safe, they are traversing the text and creating meaning. The audience is passive in that they have no influence on what is happening, but they do influence the performance style and quality and they are a witness to the performance thus making it possible. Witnessing the live theatrical event, and indirect influence the audience possess, begs for more and the audience want to cross the boundary onto the stage. In many ways digital games are ergodic theatre where the audience takes a step onto the stage in order to have more impact on meaning and narrative. Games are the moment that the audience seize creative control (even if it is shared) in order to be an audience to the narrative they desire. They no longer want to be safe and digital games allow them to position themselves in such a way.

Chapter 4 - Narrative and Meaning

The previous chapters, focusing on the ontological functions of games, theatre, audiences and players, place us in a position to analyse and examine how narrative and meaning is constructed in both games and theatre. Again the purpose is to examine what similarities may lie between the two media. This becomes more difficult in this chapter because of the many genres of both theatre and games. Rather than trying to accomplish a full and definitive understanding of meaning in both media I will attempt to use examples from a range of genres to provide samples of similar meaning and narrative devices. Necessarily there will be some broad statements and suggestions of what the two media do and how the reader will create meaning. Though some of these statements or ideas will be reductive or simplistic in that they do not cover every genre of games or theatre, the scope of this paper allows only a broad overview of how meaning is created.

Previously I have separated dramatic representation from the theatrical, it is important in this section to occasionally return to the stability of dramatic representation especially as understood by Aristotle. This is because digital “games incorporate notions about character and action, suspense and empathy, and other aspects of dramatic representation” (Laurel, 566). Especially when looking at “progressive games” (Juil, 56), which follow stricter narratives, it is important to understand their evolution from dramatic texts. The main reason for this evolution and adherence to the conventions of the dramatic is precisely because the player is *an actor* in the game. Therefore the way that the player engages is often defined by the pre-existing conventions of dramatic texts that the player has already understood or learnt.

The spatial consequences of both media is an important aspect in the creation of meaning or narrative. In some sense these two media are the only two that allow navigation through the spatiality of the mise-en-scene. This navigation operates in different ways and serves different purposes for each respective medium. But it is only in the theatrical and games that narrative can be embedded in the mise-en-scene to such an extent. Film is of course a visual medium set in ‘real’ space (at least in the case of studio and location shots). However, the audience is not invited to participate in any exploration of this space. This exploration of space will be examined in both traditional theatre and more experimental theatre where the boundaries are shifted. Also various game models allow for exploration of different modes of narrative using digital environments. This will give scope to explore what Jenkins calls ‘narrative architecture’ (118)

Juil’s book *Half-Real: Video Games between Real Rules and Fictional Worlds* (2011) focuses on how rules and fictional worlds (including narratives) collide and enable the other to function. Juil believes that games are primarily rule based and that the fiction of games must play second fiddle to rules. Yet he acknowledges that the potential for storytelling and narratives in games is an essential subject for study. I will also explore Murray’s *Hamlet on the Holodeck: the Future of Narrative in Cyberspace* (1998), where she investigates and pro-

poses how digital media will enable new forms of narrative²⁴. It is interesting to dwell briefly (when we are embarking on a similar project to Murray) on the fact that she uses language of the theatrical throughout her book. She turns first to Hamlet before any other form of literature and praises games for their ability to have “an evocative theatrical experience” (53). Though Murray’s aims to investigate narrative in games and cyberspace, the types of narratives she identifies are mostly dramatic in nature.

Going back as early as Plato’s Cave, Weber acknowledges that theatricality is primarily a medium of spatiality (Introduction). Theatre has multiple spatial aspects that need to be acknowledged and explored. As with those ‘imprisoned’ in Plato’s Cave, the audience is always in some sort of spatial structure and seated in a particular configuration. To return to the definition of theatre Weber draws from the dictionary we see that a theatre could be “an outdoor structure for dramatic performances or spectacles in ancient Greece and Rome [or] a building for dramatic performances” (Ch. 3). By definition then the theatre is inherently different from a digital game. The audience in a theatrical performance is forced into a particular space and into defined seating but “to be situated before a television screen—even more, before a computer screen—is of course something very different from being situated in a theatre before a stage” (Ch. 3). In this sense there is no escaping for the fundamental differences between theatre and games, playing a digital game takes place behind a screen and screens are portable. Weber does however infer that the digital experience is similar to the theatrical as “all these [digital and theatrical] situations are determined by a tension between anticipation and reflection, storytelling and interruption²⁵, they participate in a long history, which reaches back to the emergence of theater itself, as practice and as theory” (Ch. 3). In other words, the audience of both media have the same expectations.

The theatre as a building is only one aspect of the spatial structure of the theatrical. We can see this in the fact that a cinema is often called a movie theatre. In this sense then the theatre as a building is a space for dramatic narrative whatever the medium. However, the spatial structure of the fictional world on stage, the *mise-en-scene* that contains the ‘storytelling’, ‘anticipation’, ‘reflection’ and ‘interruption’ is the space of the theatrical. The stage is a 3-dimensional space that is transformed into a fictional world that is *not real* but *represented*. Murray’s notion of the spatiality of games works in the same way. For Murray “digital environments are characterised by their power to represent navigable spaces...[and] the computer’s spatial quality is created by the interactive process of navigation (79 - 80). This means games work on two levels. The ‘interactive process of navigation’ is fundamental to the space of the digital in that it applies to websites, software, games etc., ‘whereas the power to represent navigable’ is expressed through graphical technologies that are inherent to games.

²⁴ It must be noted that Murray was writing the book in an early stage of the use of narrative in games. Much of what she proposes has already happened. However, her book still offers interesting ways of examining theoretically what has happened in games.

²⁵ We would need to follow Weber’s full argument in order to address the implications of the notions of ‘anticipation’, ‘reflection’ and ‘interruption’ that this paper does not have the scope to do so.

However, both understandings of space in games imply that something is happening *on a stage*. The user then is not necessarily situated in a structure, but they are faced with a stage of meaning and narrative that, unlike in theatre, they *can* navigate.

The ability to navigate is not inherently theatrical or dramatic, though as mentioned above many new forms of experimental theatre are attempting to incorporate such navigation. Murray's understanding of this navigable space and of the navigability itself is that it is an event "happening *now*, and, unlike the action on the stage of a theatre, it is happening to *you*" (81) and she describes "these very dramatic moments...[as] the beginning of a process of artistic discovery...[where] the interactor's navigation of the virtual space has been shaped into a dramatic enactment of the plot" (83). Let us focus on particular aspects of this vivid and revealing description. First, there is an acknowledgement of the separation from our understanding of traditional theatre, but all theatre is embedded in the present, the live event. The fact the event is 'happening now' implies that it is a form of theatrical experience but changed by the virtues of digital environments. The 'artistic discovery' is a process of being involved in the shaping of the 'site of meaning' and is a process the actors and performers are involved in in theatre. Most important though is the fact that the player's actions and decisions are 'shaped into a dramatic enactment of the plot'. Weber's definition of theatre implies that theatre is a 'sphere of enactment' and Aristotle proposes that plot is defined through action. Though Murray does not discuss it further, her statement has implications that the space of the game, like that of theatre, is a sphere of enactment and that the plot or narrative is defined by the user/player/actor's actions or enactment. This makes the space of the game a very similar space to that of the theatrical, a site of meaning (in a live event) that holds enactment in order to create and develop plot or artistic expression.

In terms of the overall narrative and the hetrocosm of games' and theatres' fictional worlds similarities can be seen in the limitations of construction. In a book the scene and the world is set and created in its entirety by the author, or what is not set is deemed irrelevant. In film the audience is exposed to establishing shots that illuminate the world in a holistic fashion and if the director chooses to they can show us someone travelling through a city and every street they turn on (the limitations in film are only budget). In theatre the set becomes suggestive of a world outside (Weber, Introduction). The characters enter and exit as if they were doing something in the 'outside world' and there is no means for showing this to the audience. The confined space needs to suggest and make the audience believe in what exists outside. The same can be said of the digital. Murray proposes that in *Zork* (1980) the dramatic action is partly dependent on your situation in relation to the outside world (80 - 82). So being trapped in a dungeon implies that there is much that is outside of the dungeon. Even in much larger games like *Skyrim* (2011) and *GTA V* (2013), which have massive open world scenarios, there are characters that come from other lands. Indeed your character could (and does in *GTA*) come from another part of the world and in this way brings news or changes to the dramatic action from outside the player's scope of vision. In other games like *Mass Effect*, there is suggestion of a universe that is explorable. Yet you can only land on certain planets and while on those planets only travel down certain paths. Generally the player is not

upset by this limitation because it increases the dramatic tension of the hetrocosm as the suggestions, and threats of what could happen outside the player's limited scope of vision and interaction is enticing. The difference here between film and literature is that the space in theatre is real and in games navigable. Therefore games and theatre offer the audience a notion or expectation of *completeness*.

As noted, the theatrical, from its etymology to the present has given a primacy to sight as the main tool that the audience use to determine meaning (Weber, Ch. 1). In many ways games have followed a similar tradition where constantly improving graphics have become a major selling point²⁶. Even the UI (user-interface) which provides the player with all necessary information, privileges sight above all else. The audience for both media is therefore constructing meaning through the spectacle ("everything that is seen" (Laurel, 565)). What the games and theatre offer to the audience that film does not, is the choice in engagement. Films present a fictional and visible hetrocosms in the same way that games and theatre do. But the film denies any autonomy of sight by prohibiting experience to the choices of the camera. The theatrical offers audience the opportunity to examine the environment in any way that they choose, however it is the *scope* of the environment that is limited by the spatial structure of the theatre and the set that has been installed. Games offer the idea of fully realised environment that is limited then by the *scope* of the programming. Thus all three media have their own limitations but the film dictates more stringently to the viewer. The viewer watches and engages with the character they are *meant to* at all times because they can only view through the camera. Thus it becomes, if we are equating old media with new, more like the novel - the author has full control. The digital game is more like the theatrical, a space is created where the audience can view what they please and engage as they see fit. The creation of narrative meaning and interpretation, obviously noting the seated position of the audience in theatre, is therefore a much broader visual experience in games and theatre.

Much of the discussion on meaning in games comes from a convoluted argument around narrative in games. The ludologist, a particular sect of theorists in game studies who believe that games should be examined only as games, violently resist the idea that games could be a narrative based form. Juul makes a point of stressing that "*fiction is commonly confused with storytelling*" (122) and that his definition of fiction is about imagined worlds or hetrocosms. In this sense the theatrical, a gestural and visual means of expression compares nicely to the fiction of games with is also visual and gestural. In this sense both media are fictions and offer the reader a means to explore some sort of world that may or may not contain impactful meaning to them. Juul also separates games into two primary types in order to concede that some games *are* a form of storytelling while others are not. These are 'progressive and emergent games'.

'Progressive games' are games that follow a set sequence of events and therefore can

²⁶ Though we see now with the Indie Game movement a shift to what could be considered 'dated' or retro graphics. Though this is embedded in nostalgia it still does hold sight as the primary means of interpretation.

and generally do tell stories. Let us look at the table below to taken directly for Juul’s book that examines narrative in games. The table is meant to be a “straightforward comparison of video games and narrative” (157).

Table 1.

	Novels/movies/general storytelling	Video Games
1. Narrative as the presentation of stories	Yes	No: Games are activities and rules - games are not just <i>representation</i> of events, they <i>are</i> events Yes: Games as fictional worlds
2. Narrative as a fixed and predetermined sequence of events	Yes	Generally: No Yes: In progression games as the predetermined sequence that the player has to perform to complete the game, but not as all the failed attempts of the player
3. Narrative as a specific type of sequence of events (story)	Yes	Generally: No Yes: Progression games can contain this
4. Narrative as a specific type of theme (human or anthropomorphic actors)	Yes	Depends on the fictional world
5. Narrative as any kind of general setting or fictional world	Yes	No: Games as activities and rules. Yes: Games as fictional world, with caveat that games uniquely tend to present incoherent worlds
6. Narrative as the way we make sense of the world	Yes, like everything else in the world	Yes, like everything else in the world.

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The definitions of narrative in the left-most column are assembled by Juul from a variety of sources and are meant serve²⁷ as conceptual ways of conceiving games. It also illustrates, to some degree, Juul's resistance to the idea of narrative in games. There are problems around the media that Juul suggests contain narrative. Film and literature are picked quite deliberately, but there is vagueness about what exactly 'general storytelling' entails. Where does the theatrical fall? Theatre is an event but Juul would probably define it as just a *representation* of events. Theatre is also not always a progression of events as the second definition of narrative suggests. Like Juul's acknowledgement of progressive games, it is genre specific as to whether or not theatre does have a progression of events. For example interpretative dance does not necessarily have any sequence to events, nor does a rock concert. Juul is even weary of accepting games as fictional worlds and must provide a 'caveat'. Theatre and games inevitably, whether they are activities and rules or not, present some sort of fictional hetrocosm even if this is not a narrative.

Progressive games, which often have traditional three act structures, are games that deliberately attempt to invite the player into a narrative. The above definitions (table 1) of narrative illustrate exactly where and how narrative could take place in games. Examining it further we can see that games of this kind generally adopt an Aristotelian approach to the structure of the narrative and use the inherent position of the player as actor to create meaning. Laurel's analysis of Aristotle's model of drama's causality is effectively applied to narrative in games in this sense. She establishes Aristotle's 'six elements and the casual relations among them' (564) as important for understand dramatic structure as an 'organic whole' and also 'human-computer activity' (Laurel's project is to examine human-computer activity as a whole, games only form a section of that). Below is the table (table 2.) that Laurel presents about the elements of dramatic narrative. She suggests that Action is the *formal cause* of Character, Character the formal cause of Thought and so on going down. Yet Spectacle is the *material cause* of Melody and Melody the material cause of Language and so on.

The table (table 2) is useful in considering how the player engages with narrative in games and for examining the similarities to that of the actor. The actions of the player inform the character, which in turn informs the thought that presents emotion and reason. Though this thought can be expressed through language (either gestural or verbal) often this thought is "inferred by the audience and other characters (agents)" (567). Melody in this case Laurel has substituted as pattern. She applies this to all sensory phenomena in human-computer activity, yet ignores this same generous interpretation in theatre. Either way, pattern recognition is a pleasurable part of theatre for the audience because of the gestural language of theatre that is inherently pattern based. So in a dance piece the pattern, which originates from the

²⁷ This table was partly drawn by Juul to try and alleviate some of the tensions in game theory and criticism between Narratologists and Ludologists. The table is meant to illustrate that when discussing narrative in games we need to be clear on the definition of narrative and the type of game that we are exploring.

‘language of dance’, becomes where the pleasure of recognition lies. Finally the causal model leads to the spectacle that is everything that is experienced, the entirety of representation. This has traditionally in the theatrical been considered only what is seen, which is limiting of the theatrical and also does

Table 2.

Element	In Drama	In Human-Computer Activity
Action	The whole action being represented. The action is theoretically the same in every performance.	The whole action, as it is collaboratively shaped by system and user. The action may vary in each interactive session.
Character	Bundles of predispositions and traits, inferred from agents’ patterns of choice.	The same as in drama, but including agents of both human and computer origin.
Thought	Inferred internal processes leading to choice: cognition, emotion, and reason.	The same as in drama, but including processes of both human and computer origin.
Language	The selection and arrangement of words; the use of language.	The selection and arrangement of signs, including verbal, visual, auditory, and other nonverbal phenomena when used semiotically.
Melody (Pattern)	Everything that is heard, but especially the melody of speech.	The pleasurable perception of pattern in sensory phenomena.
Spectacle (Enactment)	Everything that is seen.	The sensory dimensions of the action being represented: visual, auditory, kinesthetic and tactile, and potentially all others.

The unfolding of narrative in Laurel’s model situates the actor in the position of ‘re-enacting’ the narrative. By this I mean that what the audience engages with is only the formal cause of the initial and underlying actions of the plot. Aristotle’s *Poetics*, “the founding text of systematical thinking in the ‘West’ (Weber, Ch1), suggests that what is most important to theatre is the plot or “muthos” and this is what the audience is there to witness. For Aristotle the scenic construction, which would fall under the spectacle in his model, was less important than the unfolding action. The RPG, which in many ways is the pinnacle of the ‘progressive game’, borrows from the above model very interestingly. The game creates the spectacle. These games also provide a partially complete ‘complex plot’, where they have designed or crafted the melody, language, thought, character and action for all the NPC’s in the game. The player then adopts the role of the actor and, through the materiality of the spectacle, engages in creating action, character etc. In this way the game designer invites the player to per-

form in an Aristotelian fashion through the crafted hetrocosm and plot. In many ways the progressive game uses Aristotle's ideas of muthos but as Laurel applies it to computer human activity. In progressive games this allows the plot to unfold.

To examine the RPG further we can look at how the input of the player determines narrative. The primary examples are in the choices around how to complete quests and how to engage with NPC's. Often quests have multiple ways of being completed and each has different outcomes. In *Mass Effect* (2007) you as the player are often given a choice as to whether you want to finish the quest with 'paragon' (good/lawful) or 'renegade' (evil/chaotic). In the quest where you meet the imprisoned Rachni Queen (an 'extinct' insect like alien life form - dangerous and mistrusted within the galaxy), you are given an option to free her (paragon) or to kill her (renegade). The choice is important because it will influence the game at a later stage. On a basic level the programming has two parameters which allow or disallow options later in the game. In terms of narrative it is an important choice and action that in many ways defines your character, as character is action. When talking to a NPC the player's character is given a series of dialogue options and chooses the one that best suits their character's strategy or sensibilities (paragon or renegade). When this, or any choice, is made it alters how every NPC engages with the character. Again the actions of character define the character. These types of narrative branches, whether deliberately or not, use the model that Aristotle proposes to engage the player. Jenkins notes that "performance Theorists have described role-playing games (RPGs) as a mode of collaborative storytelling" (121) and theatre is inevitably based on how it is constructed and received, also a mode of collaborative storytelling relying on the audience to complete the narrative.

There are examples of theatrical experiences that are also collaborative storytelling. The freedom to make choices that alter the narrative is in opposition to the audience's role in the theatrical experience. However in certain forms of alternate theatre the audience is actively given that freedom. Murder mystery evenings work in the same way that the RPG does, the audience gets a character and their actions define that character to the others involved in the event. Improvisation theatre, although not for the audience, invites the actor to perform given circumstances and characters based on instantaneous choices and actions. In many ways the NPC's are other actors who give the improviser 'offers' that must be responded to in order to build narrative and character (Keith Johnstone, 1987). Therefore improvisational theatre and murder mystery evenings use similar means to get the audience and participants to be involved in differing forms of collaborative storytelling.

Part of the problem, or fear, regarding narrative in games is that the player can destroy the authors attempt to reveal information at particular moments. On the flip side the author's desire to control can be a threat to the player's "freedom, power [and] self-expression" (125). Regarding the construction of the narrative in progressive games Jenkins discusses what he calls 'enacting stories' and offers two solutions to this problem. The first is 'environmental storytelling' where the game designer uses the construction of the space to direct the player.

The designer can add obstacles which force the player to travel in a particular way and thus towards specific ‘plot points’ (125.). Provided the obstacles make mimetic sense, in that they do not feel like they only exist as an obstacle, the player will accept them and move as planned without much conscious thought. Jenkins notes that “over the past several decades, game designers have become more and more adept at setting and varying the rhythm of game play through features of the game space” (125.) and this is precisely because the level design allows for the revealing of narrative at planned moments.

Enacting stories, as Jenkins imagines it, is also about particular “micro narratives” (125). These micro narratives “enter games on the level of localized incident” (125.) and are particular moments of emotional intensity. More often than not game designers attempt to use cut-scenes in order to create these moments of forced narrative, sometimes to the extent that when the player’s avatar turns the corner they lose control of the action and the narrative is forced onto them via a cinematic cut scene. Though this does aid in establishing the duality of the gamer as audience and actor, it becomes stilted and forced, with the possibility of breaking immersion in the game play. Jenkins argues that game designers “as inexperienced storytellers, [they] often fall back on rather mechanical exposition through cut scenes, much as early film makers were sometimes overly reliant on intertitles rather than learning the skills of visual storytelling” (126). However, what is starting to emerge in games now are set moments of active gameplay, perhaps with instantaneous choices. *The Walking Dead*²⁸ (Telltale Games, 2012) involves moments where you have to decide to save one character’s life or another’s. These moments of localised incidents, are enacted moments that heighten the emotional impact of the narrative and, unlike the cutscene, provide the player with the opportunity to remain in control as the actor.

Yet, “the experience of playing games can never be simply reduced to the experience of a story” (Jenkins, 120) and it need not be. The major similarities to traditional dramatic narrative exists only in ‘progressive games’ which deliberately attempt to create narrative. This is an increasing tendency and currently many players demand narrative and a good story. But to consider games, even progressive games, as just stories is reductive.

Juul’s classification of ‘emergent games’ is a game where gameplay emerges from the way the rules are structured. I have already likened this to improvisation theatre where rules determine what the actor will produce in terms of narrative. But it is also important to understand how emergent games develop their own fiction and to see what similarities, if any, lie with the theatrical.

Jenkins discusses ‘emergent narratives’ as “not pre-structured, or pre-programmed, taking shape through game play, yet they are not as unstructured, chaotic, and frustrating as real

²⁸ There is some dispute as to whether or not *The Walking Dead* is a game or a piece of interactive fiction. I think this separation is needless. Rather it can be examined as melding of the two genres, and as such a possible direction that storytelling will take in the digital realm.

life” (128). This description of emergence has direct parallels to Juul’s and we can probably suggest that emergent narratives are closely related to, or even a subset of, emergent games. In Jenkins’s imagining of emergent narrative the rules and the game play allow the player to infer and create their own narrative. He notes that Murray would call this procedural authorship (129) but he argues that this implies that it is the programming that has allowed narrative to be created. Emergent narratives, or fictions, originate from character choice’s (therefore player choices) “working not simply through the programming, but also through the design of the game space” (129.). This is important because it places the *mise-en-scene* and the spectacle as primary location of fiction.

Another aspect of the game space that Jenkins notes as influencing the fiction is the embedded narrative. The embedded narrative is using the *mise-en-scene*, and objects or artefacts with history attached to them, to give snippets of narrative. Jenkins citing Carson proposes the following as a way of examining embedded narratives:

“Many games contain moments of revelation or artefacts that shed light on past actions. Carson (2000) suggests that part of the art of game design comes in finding artful ways of embedding narrative information into the environment without destroying its immersiveness and without giving the player a sensation of being drug around by the neck: “Staged areas...[can] lead the game player to come to their own conclusions about a previous event or to suggest a potential danger just ahead. Some examples include...doors that have been broken open, traces of a recent explosion, a crashed vehicle, a piano dropped from a great height, charred remains of a fire.” Players, he argues, can return to a familiar space later in the game and discover it has been transformed by subsequent (off-screen) events.” (127).

In the embedded narrative the designer crafts the hetrocosm to contain a history and full presence of plot and story. This means that the player is asked to use their imagination or reasoning to piece together the full fiction of the world. In *Skyrim*, to some extent in all the *Elder Scrolls* games, the player collects books around the world. These books all contain bits of history or small snippets of narrative that enhance completeness of the fiction around them. What is interesting about these books, and what makes them a unique way of exploring fiction in games, is that they are optional. The player can choose to read these books or they can just collect them and store them on a bookshelf. Though the example above specifically draws attention to *Skyrim*, it is only because the amount of books in the game is extensive. Games of many different types use this strategy of embedded narrative that is optional for the player. In fact it is one of the unique qualities of games as stories. The embedded narrative, unlike the cut-scene, allows players who want a narrative to get embroiled in it and for other players to focus on the gameplay alone.

In theatre the *mise-en-scene* is also used extensively to provide the narrative of the piece. Between each scene in Eugene O’Neil’s *A Long Days Journey Into Night* (1956) the set is adjusted. The primary change is that the whisky bottle is depleted a little bit each time. The audience does not see this taking place and the depletion only takes meaning when the audience becomes aware of it. The implication again, as with in games, is that action takes places that

the audience is not privy too. Something happened in this space and we can only guess as to what it was. On a more drastic level in Athol Fugard's *Hello and Goodbye* (1971) the set is trashed in the deliberately placed interval. The audience leave and the set is intact but when they return there are boxes and broken objects all over the floor. The mise-en-scene contains the narrative and the actors seldom give full explanation to what has happened as, within the fiction, their characters were present and it needs not be explained. Though the audience did not see the action "no mediating narrative intervention is required, since the mimesis is enacted directly by living persons, "here and now," on stage. The scenic medium of theatre thus allows a certain "here and now" to take place and ostensibly to become transparent, revealing the more fundamental immediacy of a life, if not of life itself" (Weber, Ch. 2) This immediacy is one of the primary responses from the embedded story that both theatre and games provide for the reader.

The enacted narrative, as Jenkins imagines it, also exists outside of the progressive story. In emergent games the enacted narrative becomes more experiential than strictly narrative. So the fiction originates in "memorable moments in games [that] depend on sensations (the sense of speed in a racing game) or perceptions (the sudden expanse of sky in a snowboarding game)" (125). The game designer then is creating localised moments of fiction from the sensation of play. He compares this to Jackie Chan films where the stunts and fight sequences become a moment of spectacle or enactment that is superfluous to the plot but deliver pleasure and meaning to the audience (125.). This is followed by a direct comparison to theatrical events:

We might describe musicals, action films or slapstick comedies as having accordion-like structures²⁹. Certain plot points are fixed where-as other moments can be expanded or contracted in response to audience feedback without serious consequences to the overall plot. The introduction needs to establish the character's goals or explain the basic conflict; the conclusion needs to show the successful completion of those goals or the final defeat of the antagonist. In commedia del arte, for example, the masks define the relationships between the characters and give us some sense of their goals and desires. The masks set limits on the action, even though the performance as a whole is created through improvisation. The actors have mastered the possible moves or lassi associated with each character, much as a game player has mastered the combination of buttons that must be pushed to enable certain character actions. No author prescribes what the actors do once they get on the stage, but the shape of the story emerges from this basic vocabulary of possible actions and from the broad parameters set by this theatrical tradition. (8)

Here Jenkins compares the experience of the player to the experience of the actor in the theatre and in effect the audience as well. Enactment then, and the narratives that derive from it, forms a clear example of the evolution of theatrical techniques in the creation of meaning in games. The game designer allows the player certain movements that, when they are done, become meaningful for the player in creating broad or localised narratives or merely as sen-

Comment [HG1]: Slowly for the hard of thinking: is this not also done in film? Is the tendency in film to show because it can? Is it related to the physical – the 'here and now' that he talks about? Sorry if I'm being dense, but you can assume that others will be too.

²⁹ Though these examples may be from films they all have their origins in various forms of theatre.

sations and pleasures.

Jenkins briefly mentions “expressive movement” in games but does not link this to the idea of enacted stories. He makes clear that “Tetris, Blix, Snood - are simple graphic games that do not lend themselves very well to narrative exposition. To understand such games, we need other terms and concepts beyond narrative, including interface design and expressive movement for starters” (119). I argue that the idea of expressive movement is inherently theatrical (Jenkins does link it briefly to ballet) and that it can be compared to Artaud’s imaginings of theatre.

Artaud’s project revolved around finding or “recovering [theatre’s] own language (63). That is a ‘spatial expression’ that mobilises the ‘powers of action’ and is caught somewhere between thought and action (63). In other words, expressive movement. Artaud deeply distrusted verbal language partly because it appeals only to the intellect and partly because as a system for carrying meaning it seemed to have failed. In some ways this is a distrust of interpretation or meaning of an artwork being linked to plot. However, the language of actions, of ‘gestures’, was conceived by Artaud to affect “every organ and on all levels” (64). The language of theatre Artaud wanted to create would contain speech that held “dissociatory, vibratory action on our sensibility” (63) that would hold sensory powers as opposed to intellectual powers. If applied properly and relentlessly to the audience, this new language would be able to avoid ‘intellectual subjugation’ and enter into a realm of ‘metaphysics’. The sensory bombardment would mean that the audience would be subject to ‘metaphysical temptations’ on various ‘levels’. The intensity of the show visually, aurally, emotionally and intellectually would cast the audience into a “deeper, subtler state of perception” (64). Therefore his project effectively seeks the sensations of the enacted narrative which is not structured.

Artaud’s ideas and perception of theatre are of course quite radical and his full conception of the stage, the actor’s training and the audience’s response is not feasible. However there are hints that dance and bodies moving in space relate quite strongly to *The Theatre of Cruelty*. There are also links to Jenkins’s notion of the enacted narrative particularly where the meaning and the fictional experience is not linked to plot and story. Artaud wanted theatre to be purely experiential (or metaphysical as he called it). In many ways the stage and parameters of theatre do not allow this. But games do. Tetris³⁰ has no story but playing it elicits an experiential response that is open to interpretation. What Artaud sought to achieve and what he wanted the audience to leave with (in terms of sensation, meaning and pleasure) was not attainable because theatre has to have an audience and performers. Only the performer could experience these sensations and it is limited for the actor because they cannot receive many of the pleasures that the audience can. But games invite the audience to enact and then to interpret. So Tetris can become, as Murray suggests, an experience of the overwhelming lives Americans lived in the nineties, or the experience of organising your own thoughts and being

³⁰ The well-worn example

constantly overwhelmed. Both are meanings attributed to the artwork that are not based in narrative and originate from live activity. Games are evocative Artaudian theatrical experiences.

Part of what allows the player to garner these experiential meanings is that neither theatre nor games attempt to hide the artifice of their medium and representation. Though naturalism and certain progressive narrative based games shy away from artifice and try to give a complete illusory experience, the majority of both media do not, or cannot. To see how the artifice of theatre has been embraced by drama we need look no further than Shakespeare's *Midsummer's Night Dream*. The closing soliloquy of Puck/Robin Goodfellow is as follows:

If we shadows have offended,
Think but this, and all is mended—
That you have but slumbered here
While these visions did appear.
And this weak and idle theme,
No more yielding but a dream,
Gentles, do not reprehend.
If you pardon, we will mend.
And, as I am an honest Puck,
If we have unearnèd luck
Now to 'scape the serpent's tongue,
We will make amends ere long.
Else the Puck a liar call.
So good night unto you all.
Give me your hands if we be friends,
And Robin shall restore amends.
(Act 5, Sc 1).

Of course we know that Puck is both cheeky and mischievous and so is this soliloquy. Shakespeare here is drawing the audience's attention to the artificial nature of theatre and to how the representation works. "If we shadows" implies that the characters on stage are not real, they are only a representation. The real humans, the actors, are not part of the dream that the representation invites the audience to partake in. That it is called a dream is also revealing of the artificiality of the story being told by theatre. The appeal for applause ("give me your hands if we be friends") and the plead not to be hissed or booed ("scape the serpent's tongue") are indicative of the theatre and the plays function of appeasing the audience. The audience is given agency as Puck is willing to "amend" if the audience is displeased in any way. This is but one example of Shakespeare's acknowledgement of the unreality of theatre.

In *Two Gentlemen of Verona*, Launce (and Shakespeare) has a comedic and insightful meditation on theatrical representation:

Nay, I'll show you the manner of it. This

shoe is my father: no, this left shoe is my father:
 no, no, this left shoe is my mother: nay, that
 cannot be so neither: yes, it is so, it is so, it
 hath the worser sole. This shoe, with the hole in
 it, is my mother, and this my father; a vengeance
 on't! there 'tis: now, sit, this staff is my
 sister, for, look you, she is as white as a lily and
 as small as a wand: this hat is Nan, our maid: I
 am the dog: no, the dog is himself, and I am the
 dog--Oh! the dog is me, and I am myself; ay, so,
 so. Now come I to my father; Father, your blessing:
 now should not the shoe speak a word for weeping:
 now should I kiss my father; well, he weeps on. Now
 come I to my mother: O, that she could speak now
 like a wood woman! Well, I kiss her; why, there
 'tis; here's my mother's breath up and down. Now
 come I to my sister; mark the moan she makes. Now
 the dog all this while sheds not a tear nor speaks a
 word; but see how I lay the dust with my tears.
 (Act 2, Sc 3)

Here Launce is creating a theatrical event from the items around him. Obviously the shoes will always be shoes, but through the “virtue of its [theatre] ability to signify” (Weber, Ch. 1) the shoe is abolished as an object and becomes a representation of Launce’s mother or father (depending on which has the “worser sole”). Perhaps most revealing about the actor, and therefore the player of a game, are the line: “I am the dog: no, the dog is himself, and I am the dog--Oh! the dog is me, and I am myself; ay, so, so”. Here the actor’s own identity is lost in the theatrical representation. He (Launce) is distanced from himself by becoming a representation of something else. Also the dog is made to represent Launce yet Launce is still Launce. This is the same predicament of the actor and the player.

Murray’s example of the protagonist in *Taz in Escape from Mars* (1994) is one such instance where games make their artifice visible to the player. If a character in the fictional world tells you to press ‘x’ (in an Xbox Game) in order to do something it is a disruption of the fiction of the game, yet it is not a disruption of our immersion. Murray claims that this disruption allows distance and therefore in some ways a deeper immersion. For Juul these moments are not about the fiction or disruption, rather they acknowledge that a game is a game and therefore made up of rules. In this way it does not matter that in *Donkey Kong* (1981) Mario can die three times. The player is not asked to and they do not try to explain this away through some elaborate fictional detail, rather the player accepts that the rules give *the player three lives, not Mario* (123 - 130). The artifice of the rules that are working in games therefore reveals themselves in what the player can and can’t do. These ‘incoherent fictional worlds’ (130) need the player to understand the rules in order for them to be accepted. This means that the artifice in games functions in a different manner from that of theatre.

However, in both, the reader is expected to understand the conventions of either rules or signifying systems (in the sense that the body or object becomes something other). Once the player is aware of this they can enjoy the artwork and create a coherent meaning, narrative or fiction.

While gamers are able to perform and observe in this imaginative world there are of course the very same problems that Artaud came to realise in his model of the Theatre of Cruelty. The artist, or game designer, is still the person[s] creating the hetrocosm. While the audience may have become an active participant they are still subject to the limitations of the hetrocosm (in games also to the technology of the game). The sincerity (as a truthful reflection on reality) of expression of self is as limited here as it has to be in theatre. As soon as one person offers something in any medium to be explored it becomes an artifice and therefore lacks sincerity, so it is for the gamer who wants to have unlimited freedom in the game but is restricted to the rules and game engine. Yet does this not make games more theatrical? It was in Artaud's 'tet-a-tet'³¹ that he claimed that he could not be sincere while performing (Miller, 2000). This was not to the detriment of theatre but rather a part of its artifice. Theatricality as a medium is a created artifice that holds its own meanings and is not meant to be a sincere reflection of reality. Rather 'sincerity' (for lack of a better word) is created and judged through the effective use of established theatrical linguistics or through the game's mimesis.

Halliwell succinctly displays how this perception of art has been explored throughout its history. As he puts it: "The genuine art lover responds to the inner perfection of the artistic microcosm, rather than looking for the 'the truth of what is imitated'; and, "art must rise above mere illusionism toward a kind of entrancing idealism". By this he means that art contains a meaning that is perhaps 'psychological' or 'spiritual' and can transcend the 'illusionism of mere appearance'(2). The world of the art piece (its laws and ways of functioning) that has become absorbing to the spectator must contain a meaning that mere representation cannot possess. Digital games, especially considering the imaginative worlds created in them, do this most effectively. The game franchise *Civilizations*, in which you build cities and nations, is not a sincere/accurate representation of how civilizations are built. But there is a quality to the games that transcends an attempt at representation and present rather significant 'truths' about life. This means that the games hold a theatrical truth/sincerity that is based on perfection of a coherent mimesis.

A final note to consider about the similarities in meaning making between games and theatre is the process of creation. As an object of art both games and theatre are immensely collaborative. While a game and a performance can be written, directed/coded, designed/animated and acted by one person, generally this is not the case. Normally both media involve large

³¹ This was Artaud's last public performance. In it he confessed that what he has imagined was not possible and that he had been foolish to attempt such lofty goals.

teams of people, each contributing in their own field of expertise to create the final product. In both the site of meaning is the event where the audience and the player is invited to complete the collaboration by imparting meaning and allowing the static object to come alive. In this way both media represent what Meyerhold called “straight-line-theatre”, where everything is geared towards a live and interactive moment between actor and audience. So part of the pleasure of interpreting both games and theatre is that you as audience or player are essential.

The theatrical event is also never complete. This is partly because of the temporary nature of theatre and the differing performances of each event. But it is also because each new audience will have a direct impact on the actors and this in turn will impact all subsequent performances. The audience creates meaning by laughing at a moment or not laughing at moment and the actor responds to this in all subsequent performances. A game is also never complete. The digital allows for patches and updates based on user experiences to be constantly released. PC games also allow the players to create their own MOD's (modifications) which change the coding to balance an issue or to add new items. This is shared with other players on forums, thus creating a game that is constantly changing and progressing. In many ways the pleasure of the theatre and games is that we as the audience are in charge of the meaning and how we receive them.

Although games and theatre have deliberately differing ways of establishing narratives and meaning, there are some similarities between the two. In progressive games that consciously attempt to create narratives, we see that an Aristotelian structure has been implemented. This is because the player will inevitably adopt a character and this model focuses the actions of characters and how that creates plot and narrative. These particular types of games, while deliberately narrative based, still employ devices that are specific to games. Level design and the embedding of narrative within a navigable space become common tools that game designers use in order to create rich hetrocosms that the player traverses.

The idea of the created space and the fictional world is important in understanding the ways that games create narratives. Often plot falls away in favour of powerful gameplay through evocative spaces. The sensation of travelling through those spaces, of being able to navigate them and imbue them with meaning is a pleasure that only games allow for their readers. The theatrical has similar qualities in that the space is more navigable than the camera presented space of film. But it is only the actor who can engage with the mise-en-scene and use it to create meaning during a theatrical performance. So games in many ways are a logical evolution of theatrical experiences because it allows the audience to become the actor and create meaning within the space. Yet the meaning is never disrupted by the player because of the distancing effect of the screen and the fact that games are self-aware of their own artifice.

What is perhaps most universal to the two media and to the two forms of games (emergent and progressive) is that expression generated from live action. In the theatrical event this

meaning is created by gesture and the movement of real bodies in the here and now of theatre. In games, although avatars represent the player and the real body is relatively static and side-lined, the presence of the player's input and the prescribed set of repeatable actions means that the player is also creating meaningful gestures. As Murray puts it, "in the computer game the interactor is the dancer and the game designer is the choreographer" (144). Both media are essentially sensory and experiential (even when they have a strict narrative) and it is this that links the two so inherently. Both are expressive forms involved in the live creation of meaning.

Chapter 5 - Conclusion

A player controlled avatar moving across an empty screen while being watched by the player is all that is needed for an act of gaming to be engaged.

-Kieran Reid, 2014

This research opened with Peter Brook's statement about what is needed for an act of theatre to be engaged. I have decided to end this paper with my own statement about what is needed for an act of gaming to be engaged in. This is not to suggest that games are theatre, but rather that through the above research we can reach the conclusion that games are in some ways an evolution of the theatrical. Many of the means of creation and reception of games can only draw their roots from the theatrical experience. The necessity of the player and the audience engaged in various systems (semiotic and functioning), as my own definition and Brook's suggest, is fundamental to understanding how games have evolved. This has been the driving premise of this research and has been outlined in various different ways.

One of the major problems with this type of ontological research is the ease with which the two media can become convoluted and reductive of each other. Too often researchers have ignored fundamental aspects of either media by being situated 'on the side' of one medium over the other. It is easy, if your background is in film for example, to try and compact games into filmic conventions. Rather than exploring games for what they are and appreciating their uniqueness, it is easy to subject them to existing theories. This research has attempted to avoid such a reductionist approach by exploring evolutions rather than simple identifying similarities and situating them in existing media. However, when comparing such a 'new' medium to one of the oldest and most theorised, it is often difficult for the 'younger' to stand on its own feet. The theory revolving around theatre is often embedded in philosophy and rich semiotic studies, whereas the study of games is constantly trying to find where it is situated within these larger bodies of knowledge. This paper was an attempt to create "a deductive method, leading to a 'hypothetical model of description'" (Aarseth, 9).

This deductive method was to establish and provide working definitions of both media and then to find the comparisons between the two. Most of this ontological research was focused around the systems involved in both media. Games and theatre fundamentally operate through the meeting of various different systems. These systems are often static (the set in a play) or logical constructions (the coding of a game) and only become activated during the event of the game or the theatre. In this way the player and the audience become prominent in meaning making as an inactivated system is just an object and not an artwork. Theatre and games are live events and as such could be considered cybernetic systems. No other media functions as such because the art object functions in its entirety without the reader. Meaning might not exist without the reader, but the artwork does. Games and theatre both rely on the active participants (actors, audience and players) and invite them to join a feedback loop. This study of the systems of games and theatre provided the basis of my deductive method.

Part of establishing a method for approaching games as an evolution of theatre was to examine the way in which the two vital components of the theatrical were included. Examining what the player does when playing a game, the conclusion was reached that the player embodies both the actor and the audience in the theatrical event. This dual position of the player is both ambiguous and complex. Except for experimental forms of the theatrical this split of responsibility is not possible in the theatre. The site of meaning is created by an interaction between the performers and the audience who both engage with the system of theatre (mise-en-scene, script, structure of the theatre as a building). But games are a form of ergodic literature which means that the reader has agency in the construction of meaning. This agency is necessarily quite active and not determined, as is generally the case in theatre, by presence alone. However, as with all ergodic literature the reader is still where interpretation and meaning has to lie. In order for it to be considered art or literature there must be a relationship between the author and the reader.

In many ways the technological capabilities of games have allowed players and audiences to satisfy "the age old desire to live out a fantasy aroused by a fictional world has been intensified by a participatory, immersive medium that promises to satisfy it more completely than ever before been possible" (Murray, 98) and to be difficultly situated as actor and audience. This is playing a game invites the audience, in this case the gamer, to become an actor. This is in part, as Murray suggests, because of the screen or the 'digital fourth wall'. The screen and the distance created by this allows the player to maintain a distance and not disrupt the fiction by being immersed in it. This fulfilment of a desire to be an actor suggests that games are an evolution of the theatrical because it allows everyone to be an actor. In many ways it is the obvious and necessary step for the theatrical and tracing the history of alternative theatre and performance art we can see active attempts to blur the boundary between audience and actor without the aid of technology.

Essentially what this deductive method has done is position us in understanding games and theatre as similarly systemic and created a means for examining the player's ambiguous role in the creation of meaning. This successfully creates a model where we can examine the interpretation and the meaning of games as experienced by the player which would be a hypothetical model of description for games and theatre. The majority of this paper was aimed at creating this method of examining the two media, I have also attempted to provide descriptions of interpretation and meaning making in both media. This was achieved primarily through examining fiction and narrative in games, which is a highly contentious issue.

One of the major problems with the conception of narrative and fiction in games is that theorists deny the activity as inherently fictional or narrative based as the player is actively involved in the creation of the games meaning. While this does situate games outside of traditional means of conceiving narrative and fictional meaning or value, it also ignores the possibility of conceiving the player as an actor. Theatre's site of meaning is the event of theatre and the actor is involved in creating this meaning and activating this site. So if we consider the player as the actor in a theatrical experience we can begin to examine what the actor's

work is in the fiction and then apply that to a game. In traditional drama the actor is making choices about actions that they must take, even if this is broadly defined by the script of the play. These choices impact what the audience will receive and how the narrative will be enacted in the live event. In the same way the player makes decision and plays any game in a certain way. Therefore it is during the activity of the game, the playing of the game, that meaning and narrative and fiction begin to exist.

Primarily though, what is similar in the interpretation of the two media is that they are both live gesture based, experiential media. Both rely on the movement of the body, either real or digital, through crafted and meaningful spaces. These actions and movements, which can simply be moving the joystick left and right in Pac-Man, create experiences that can be interpreted in narrative form or simply as a sensation. Dancing and connecting pieces in Tetris work in the same way on the reader. This is in part the recognition and following sensation of recognising patterns. Essentially what we love about the theatre and games is that our bodies respond sensorially to the visual presented to us. As such it is possible to consider games as aspiring³² to similar pleasures that the theatre provides.

Ultimately a game is a game and a performance is a performance. The two are not the same and nor should they be. The underlying question of this paper is: to what extent can digital games be considered theatrical? This entailed an investigation of the ontological function, role of the player, the actor and the audience and how narrative and meaning is created in both media. The research lead to a revised question: in what ways have digital games evolved and adapted from the theatrical? There are broad similarities in the two media and similar objectives. Though there is of course, and cannot be, conclusive evidence that games have evolved from the theatrical, it is clear that games are more closely related to the theatrical in the family of media than to any other.

I think both Brook's definition and my own stand, and are useful means for understanding what should be expected when going to the theatre or when playing a game.

³² I say aspiring not to demean the work that games have accomplished, but rather to suggest that all art is continually aspiring towards particular responses in their audiences.

Works Cited:

- Aarseth, Espen J. *Cybertext: Perspectives on Ergodic Literature*. The Johns Hopkins University Press, 1997. Print.
- Abramovic, Marina. *Rhythm 0:1974*. 1974. Performance.
- Artaud, Antonin, and Victor Corti. *The Theatre and its Double*. Richmond, [England]: Oneworld Classics, 2010. Print.
- Benjamin, Walter. *Illuminations*. New York: Schocken Books, 2007. Print.
- Bennett, Susan, " *The Role of the Theatre Audience: A Theory of Production and Reception*". DigitalCommons@McMaster. Paper 2131. Open Access Dissertations and Theses, 1988. Web. 21 Feb 2014.
- Bilgrave, D. P & Deluty R.H. (2004) " *Stanislavsky's Acting Method and Control Theory: Commonalities across Time, Place, and Field*". Social Behavior and Personality. 2004, 32(4), 329-340
- Bogost, Ian. *Unit Operations: An Approach to Videogame Criticism*. Cambridge, Mass.: MIT Press, 2006. Print.
- Brathwaite, Brenda, and Ian Schreiber. *Challenges for Game Designers*. 1st ed. Charles River Media, 2008. Print.
- Brecht, Bertolt, and John Willett. *Brecht on Theatre: The Development of an Aesthetic*. New York; London: Hill and Wang ; Eyre Methuen, 1978. Print.
- Brook, Peter. *The Empty Space*. New York: Simon & Schuster, 1996. Print.
- Camus, Albert, and Justin O'Brien. *The Myth of Sisyphus, and Other Essays*. New York: Vintage Books, 1991. Print.
- Carlson, Marvin. *Performance: A Critical Introduction*. N. p., 2004. Print.
- [Sid Meier's Civilization V. 2K Games, 2010. Windows.](#)
- [^]*Donkey Kong*. Nintendo, 1981. Arcade.
- Eco, Umberto. *The Limits of Interpretation*. Indiana University Press, 1991. Print.
- Elam, Keir. *The Semiotics of Theatre and Drama*. 2nd ed. Routledge, 2002. Print.
- Fugard, Athol. *Hello and Goodbye: A Play in Two Acts*. New York: S. French, 1971. Print.
- Gaudiosi, John. "New Reports Forecast Global Video Game Industry Will Reach \$82 Billion By 2017". *Forbes.com*. Forbes.com, 18 July 2012. Web. 21 February 2014.
- Grand Theft Auto V*. Rockstar Games, 2013. Xbox 360.
- Grotowski, Jerzy, and Eugenio Barba. *Towards a Poor Theatre*. New York: Routledge, 2002. Print.

Formatted: Font: Not Italic

Halo: Combat Evolved. Microsoft Game Studios, 2001. Xbox 360.

Halliwell, Stephen. *The Aesthetics of Mimesis: Ancient Texts and Modern Problems*. Princeton University Press, 2002. Print.

Jenkins, Henry. "Game Design as Narrative Architecture." *First Person : New Media as Story, Performance, and Game*. Ed. Pat Harrigan and Noah Wardrip-Fruin. Cambridge, Mass: MIT Press, 2003. Print.

Juul, Jesper. *Half-Real: Video Games between Real Rules and Fictional Worlds*. Cambridge, Mass.: MIT Press, 2005. Print.

Laurel, Brenda. *Computers as Theatre*. Reading, Mass.: Addison-Wesley Pub. Co., 1993. Print.

Laurel, Brenda. "Two Selections by Laurel." Wardrip-Fruin, Noah, and Nick Montfort. *The New Media Reader*. Cambridge, Mass.: MIT Press, 2003. Print.

Mass Effect. Microsoft Game Studios, 2007. Xbox 360.

Mayra, Frans. *An Introduction to Game Studies*. Sage Publications Ltd, 2008. Print.

Miller, James. *The Passion of Michel Foucault*. Anchor, 1994. Print.

▲ *Metro 2033*. THQ, 2010. Xbox 360.

Meisner, Sanford, and Dennis Longwell. *Sanford Meisner on Acting*. New York: Vintage Books, 1987. Print.

Murray, Janet H. *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. The MIT Press, 1998. Print.

O'Neill, Eugene. *Long Day's Journey into Night*. New Haven: Yale University Press, 2002. Print.

Pac-Man. Namco, 1980. Arcade.

Pavis, Patrice, Marvin Carlson, and Christine Shantz. *Dictionary of the Theatre Terms, Concepts, and Analysis*. Toronto, Ont.: University of Toronto Press, 1998. Print.

Pong. Atari Inc., 1972. Arcade.

Salen, Katie, and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. The MIT Press, 2003. Print.

Shakespeare, William. *The Complete Works of William Shakespeare (Wordsworth Royals Series)*. Wordsworth Editions Ltd; Reprint edition, 1997. Print.

▲ Shepherd, Simon, and Mick Wallis. *Drama/theatre/performance*. London; New York: Routledge, 2004. Print.

Skyrim. Bethesda Softworks, 2011. Xbox 360.

Sleep No More. Punchdrunk. Dir. Felix Barrett and Maxine Doyle. 350 W27th Street, New York. 27 June 2013. Performance.

Stanislavsky, Konstantin. *An Actor Prepares*. New York: Routledge, 1989. Print.

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Formatted: Font: (Default) Times New Roman, 12 pt, Italic

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Formatted: Font: (Default) Times New Roman, 12 pt, Bold

Formatted: Font: (Default) Times New Roman

- StarCraft: Brood War*. Blizzard Entertainment, 1998. PC.
- StarCraft II: Wings of Liberty*. Blizzard Entertainment, 2010. PC.
- Taz in Escape from Mars*. Sega, 1994. Megadrive/Genesis.
- Tetris*. Nintendo, 1988. NES.
- Walking Dead, The*. Telltale Games, 2012. iOS.
- Wardrip-Fruin, Noah, and Pat Harrigan. *First Person: New Media as Story, Performance, and Game*. Cambridge, Mass.: MIT Press, 2003. Print.
- Wardrip-Fruin, Noah, and Nick Montfort. *The New Media Reader*. Cambridge, Mass.: MIT Press, 2003. Print.
- Weber, Samuel. *Theatricality as Medium*. 4th ed. Fordham University Press, 2004. Kindle.
- Williams, Raymond, and Raymond Williams. *Drama from Ibsen to Brecht*. London: Hogarth, 1987. Print.
- Zimmerman, Eric, and Katie Salen, eds. *The Game Design Reader: A Rules of Play Anthology*. The MIT Press, 2005. Print.
- Zork*. Infocom, 1980. PC.