GAMIC CINEMA AND NARRATIVE SPACE IN RUN LOLA RUN AND GAMER

by

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Abstract

In his formative book *Gaming: Essays of an Algorithmic Culture*, Alexander Galloway suggests that technological innovation and a dynamic shift in cultural appeal has ensured that the relationship between cinema and video games has become increasingly more complex in nature. Once regarded as an inferior form of media in the past, video games have quickly grown to become one of the most influential forms of media of the 21st century, challenging the ways in which we view, analyse and engage with contemporary visual media. In studying the impact of video games on film, Galloway notes that a new wave of filmmakers has begun to explore the multifaceted ways in which video games can influence film by incorporate specific innovations from video games in to the filmmaking process. He identifies this wave as *gamic cinema*.

It is my contention that the rapid evolution of video games in the contemporary media landscape continues to have a profound impact on the development of film. Therefore, the aim of this thesis seeks to examine the concept of gamic cinema by conducting a comparative textual analysis of two primary texts; Tom Tykwer's hyperkinetic *Run Lola Run* (1998) and Mark Neveldine and Brian Taylor's visually frenetic action film *Gamer* (2009). In doing so, it poses two primary research questions; what specific innovations from video games are incorporated in to these films, and what filmmaking techniques are used to do so? To further explore these questions, this thesis suggests that the study of narrative space, a concept that exists within both film and video game studies, may be an effective means through which we

can examine gamic cinema. In light of this, this research also draws on theories and discourse from the fields of film, video game and new media studies in order to offer a thorough exploration of the relationship between the two media forms. Ultimately, this research sets out to explore video games have influenced the filmmaking process and what this could mean for the future of cinema.

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For Jamie.

Introduction

"If the distinctions between film and video games are indeed quite robust, one may ask whether film can ever be said to 'just game'.

- Paul Coates

"Perhaps the most appropriate way to put it is to remember that when we speak of the cinema today, we speak of cinema after television and after the video game"

- Thomas Elsaesser.

The primary goal of this research sets out to explore how video games have influenced the form and content of contemporary film, and aims to explore the formation and principles of gamic cinema through the study of narrative space. I contend that narrative space is an effective interdisciplinary concept of study which we may use to examine how video games conventions have migrated in to the filmmaking process. To introduce my research, I will provide a brief historical overview of the initial relationship between film and video games began, how it has been formed throughout time and how the confluence of these two media forms may be contextualised today.

Since the inception of the video games industry in the 1970s, video games have often drawn inspiration from the film industry in a variety of different ways. To begin with, technological limitations within the video game industry played a vital role in the formation of the relationship between the two media forms. Slow processing speeds and graphical capabilities of personal computers and early game consoles limited the scale of video game environments. As such, developers drew on the visual language and style of films to create simple visual narratives. In doing so, developers could rely on the audience's familiarity reading and interpreting on-screen action to create simple yet compelling immersive experiences (Jensen, 1988).

Secondly, as an established and influential form of visual media, game developers readily drew on narrative, aesthetic and generic conventions of film as inspiration for many games. This trend became more apparent throughout the 1980s with the release of games such as *Spy Hunter* (Midway, 1983), *Karateka* (Brøderbund, 1984) and *Contra* (Konami, 1987) which drew on the conventions of popular actions films throughout the decade.

This trend would carry on throughout the 1990s and in to the late 2000s with the release of titles such as *E.T the Extra Terrestrial* (Atari Inc, 1982), *The Godfather* (U.S Gold, 1991), *007: Goldeneye* (Rare, 1997) and *Enter the Matrix* (Shiny Entertainment, 2003). By drawing on these concepts, video game developers could explore new and innovative forms of game design through familiar visual and narrative conventions. In some cases, video game adaptations of movies have even contributed to innovations in game design. The adaptation of the popular film *007: Goldeneye,* is often considered within the video games industry as a

pivotal moment in the migration of multiplayer modes to home consoles, setting the foundation for the emergence of online first-person shooters that are now a critical part of game culture today. Finally, by utilising the familiar narrative and aesthetic conventions of films, game developers were able to capitalise on popular film titles and appealed to their established audience base. An example of this can be seen with the release of *Tomb Raider* (Core Design, 1996) which shares many genre conventions inspired by *Indiana Jones: Raiders of the Lost Ark* (1981).

However, the flow of influence is, by no means, limited to films impact on video games. As a new and innovative form of visual media, video games began to challenge the dominance that film held throughout the 20th century. In response, the film industry began to draw on video game conventions to capture the attention of audiences and capitalise on the popularity of video games. As Giordano, Girina and Fassone (2015) note, this influence can be identified and outlined in three categories:

- Films that use video game conventions as a trope or leitmotif.
- Films that are adaptations of video games.
- Films that are influenced by the narrative structures and visual codes of video games in their form and content.

The use of video game conventions and cultural references as a trope or recurring theme first began to emerge in films released throughout the 1980s. Like the games before them, these films often attempted to capitalise on audience's familiarity with their subject matter. Additionally, they were often inspired by technology; virtual reality, artificial intelligence (A.I.)

and even nuclear war were used as central themes in films such as *Tron* (1982), *Cloak and Dagger* (1984) and *Wargames* (1983).

The second category, video game adaptations, became popular towards the end of the 1980s and throughout the 1990s. Film studios began reaching out to game developers to secure the rights to adapt video game titles for film, leading to a wave of video game tie-ins such as *Super Mario Bros* (1993) and *Mortal Kombat* (1995). However, the release of these adaptations polarised fans and critics, with the majority receiving generally negative critical reviews and poor commercial performance (Giordano, Girina & Fassone 2015). Although the early 2000s saw a resurgence of video game adaptations, and films such as *Lara Croft: Tomb Raider* (2001) attained a measure of box office success, critical reception for these films continue to focus on the poor quality of their translation to the big screen. In most cases, adaptations often deviate from the key narrative and aesthetic foundations of their source material, producing films that share very little with them.

The final category refers to films that are influenced by the narrative structures and visual codes of video games. Burwen (2013) acknowledges that, with the rapid development of video game hardware throughout the 1990s, game developers began to emulate the visual language of cinema, particularly camera angles, perspectives, sound effects and the use of non-diegetic music and diegetic sound effects to create new and dynamic game experiences. This led to the development of games that are often considered *cinematic* in nature, ultimately producing titles that received wide spread critical and commercial success such as *Tomb Raider* (Core Design, 1996) and *Metal Gear Solid* (Konami, 1998). As a result, Jenkins

(2004) acknowledged that a new wave of filmmakers began to emerge throughout the 2000s who had experienced the rising popularity of video games and begun incorporate their structural, spatial and aesthetic qualities in to their films. Gordinier (2007) referred to such directors and producers as the "PlayStation generation" and noted that the flow of influence had shifted from film to games, to games to film. This group of directors includes Katheryn Bigelow, David Cronenberg and the Wachowski's, who produced films such as *Strange Days* (1995) *Existenz* (1999) and *The Matrix* (1999) throughout the 1990s.

In his book *Gaming: Essays of an Algorithmic Culture*, Galloway (2006) acknowledges that to suggest that films are becoming more like video games is cliché, and an over-simplification of their increasingly complex relationship (Galloway, 2006 :39). Like Jenkins and Gordinier he notes that an increasing number of filmmakers have sought to explore the intersection between video games and cinema beyond simply readapting video game narratives visual aesthetic. Instead, he concludes that their films draw on "specific formal innovations from games" and have attempted to translate them "in to the formal grammar of filmmaking". He concludes that this small but distinct group of films "could be considered a form of gamic cinema" (2006 :62). However, Galloway's outline of gamic cinema is not without issue. It does not, for example, provide a systematic methodology through which we may examine these video game-esque qualities. Without a clear outline that can be used to examine these conventions, the theory risks forming broad generalisations concerning what separates gamic cinema from video game adaptations (King and Krzywinska, 2002 :19).

How then, do we identify these specific formal innovations? How do filmmakers translate these innovations in to the cinematic form? Moreover, how does this impact the interpretation of the films themes, form and content? I contend that by studying the construction of narrative space within these films, we may be able to examine what innovations filmmakers attempt to incorporate, the method in which they are translated in to film form, and what this intersection of media forms contributes to the films themselves. Therefore, this thesis seeks to critically examine two films that may be considered forms of gamic cinema by analysing and comparing how these films incorporate, translate and interpret video games in to their form and content.

A discourse on narrative space has an established history within film studies. Developed by Stephen Heath, in the 1970s, “narrative space” refers to the “organisation of visual space [that] contributes significantly to the narrativisation of a film" (Tong & Tan, 2002 :102). Similarly, the theory of narrative space has also been used by scholars within video game studies to explore how the construction of video game environments facilitate and inform the game's narrative, to create increasingly immersive gameplay experiences. As an interdisciplinary theory, I argue that narrative space can be an effective means through which to examine how video games have influenced and informed the filmmaking process. To do so, this thesis focuses on three common factors that the two mediums share: space, movement (of characters and the camera) and perspective. I will argue that by studying these shared conventions, we may be able to identify similarities and differences between how they convey the influence of video games.

The films that have been selected to conduct this study are *Run Lola Run* (1998) and *Gamer* (2009). Although each chapter is dedicated to analysing both films, an outline of their respective narratives is necessary to understand how video games have played a role in informing their form and content, and how they may be considered examples of gamic cinema.

Set in Berlin in the late 1990s, *Run Lola Run* follows Lola (Franke Potente) a free-spirited 20-something-year-old as she attempts to save her boyfriend Manni (Moritz Bleibtreu). As a low-level criminal, Manni is forced by the leader of his gang (Heino Ferch) to lead an illegal diamond exchange as a test of faith and must deliver a bag containing 100,000 Deutsche Marks to a secure location. However, when Manni loses the money during an altercation with police, he desperately calls Lola for help. From this point on, Lola desperately attempts to find the money and get to Manni in 20 minutes; if she cannot, he will be forced to rob a nearby supermarket to get the money instead. From this point the narrative charts Lola's attempts to secure the money and reach him in time. Rather than depict Lola's journey through a linear narrative, Tykwer instead uses a three-point narrative structure, often referred to as 'runs' to chronicle her adventure. In the first run, Lola fails to secure the money and is accidentally shot by the police. As she dies, she realises that she can consciously reset time and as a result, returns to the moment of her first call with Manni to begin the attempt anew. Armed with a desire to save her boyfriend's life, Lola sets out to traverse Berlin and secure the money by any means necessary.

Alternatively, *Gamer* is set in a near dystopian future where technological advances have led to the development of nano-machines which, when introduced in to the bloodstream, allow individuals to be controlled remotely by another person. The creator of these machines, Ken Castle (Michael C. Hall) uses this innovative technology to create realistic interpretations of video game death matches, which are then broadcast live throughout the world. In Slayers, players can pay to take remote control of death row inmates and compete in real-life skirmishes that emulate the popular first-person shooter (FPS) genre of games. Alternatively, Society is a game environment that emulates life simulation games, such as *The Sims* (Maxis, 2000- present) and *Second Life* (Linden Lab, 2003-present). Driven by the same technology, Society is a game space in which players pay to control actors who are, in turn, paid to be controlled. The plot of the film follows Kable (Gerard Butler) a man wrongfully imprisoned for murder who is forced to take part in a series of deathmatches under the control of Simon (Logan Lerhman) a seventeen-year-old gamer. If they can successfully survive thirty game matches together, Kable will be free to return to his family. However, a conspiracy threatens to ensure that Kable is never released.

As this thesis is concerned with the study of the impact that video games have had on the form and content of film, it incorporates theories and discourse drawn from the field of video game studies. This approach has been adopted for many reasons. Firstly, one of the key aims of this research is to examine the translation of video game innovations in to film form. Therefore, an exploration of video games and their unique forms and conventions is necessary. Secondly, it does not seek to suggest that film theory is a more effective means through which to study the intersection of these media forms or vice versa. Nor does it

attempt to detract from the unique qualities that define them. Instead, it seeks to develop a discourse which draws on theories from both academic fields, an approach adopted by many theorists writing on this subject, such as Geoff King and Tanya Krzywinska (2002) and Henry Jenkins (2004). By utilising an interdisciplinary approach, this thesis seeks to engage in a "critical analysis that is conscious of this media hybridity, and [does] not dismiss such criticism as having little to offer" (Gish, 2012 :42).

However, many video game and new media academics have written on the use of terminology within game studies, particularly in defining what is meant by the term video game. As this thesis explores the conventions of video games and draws on video game theory, a clear understanding of what is meant by the term must be established to provide a sense of clarity. As video game studies began to develop as an academic field, scholars began to question the language used about its subject matter. Indeed, Wolf and Perron (2009) acknowledge that within the academic discourse of various disciplines, the medium has been alternately referred to as digital games, electronic games and computer games, and that these distinctions are not necessarily interchangeable. Additionally, they suggest that audio-visual input, interactivity, technology and engagement all play a role in how a game is defined. Digital games can be downloaded to multiple devices, such as phones and tablets which greatly limits their graphical ability in comparison to dedicated game platforms. Secondly, electronic games can refer to popular hand-held games that do not require video output, such as *Simon* or *Bop-It*. Thirdly, computer games are often used to refer to games played on a personal computer (PC) which may also include different audio-visual iterations of games, such as text-based adventures. Finally, the term *video game* is often used to refer to software

that requires a navigable and interactive game environment, a method of interaction (such as a controller) and a dedicated visual output such as a screen or monitor. This definition is apt, as it includes home consoles such as the various iterations of Nintendo, (1983-present) Playstation, (1995-present) and Xbox (2001-present). In exploring the impact of video games on film, I argue that both *Run Lola Run* and *Gamer* draw specifically on the innovations of game titles that were popular at the time of their release. As a result, the term video game/video games that Wolf and Perron outline will be used throughout this thesis.

Although many papers within film studies have tackled how film has influenced video games (Papazian & Sommers 2013, Girina, 2013), academic interest that centres on the influence of video games on film has only begun to gain traction in recent years. Brooker (2009) argues that since their inception video games have often been considered a lesser form of media in comparision to cinema (2009 :124). While the influence of film on video games has often been characterised as positive, video games influence on film has often been considered negative, due to the conflicting interpretation of adaptations. As a result, King and Krzywinska argued that “films that clearly exhibit the formal qualities drawn specifically from the aesthetics of film are few and far between” (King and Krzywinska, 2002 :16). However, the increasing popularity of video games as a form of contemporary media has cultivated a renewed interest in the effects that may have on other mediums. In light of this, scholars such as Henry Jenkins (2002) have urged academic fields of various disciplines “to take games seriously as an important new popular art shaping the aesthetic sensibilities of the 21st century” (2002 :48).

Additionally, as the video game and film industries evolved extensively throughout the 1990s and 2000s, both industries have experienced rapid technological developments, including realistic graphics, new multiplayer capabilities, cheaper computer components and renewed interest in virtual reality. The film industry has experienced a similarly rapid leap in development, producing new and increasingly innovative filmmaking technologies. Critically however, the advent of digital cinema in the early 2000s has changed the way in which films are made, distributed and viewed. The move to digital brought new forms of production to the fore, such as technological and stylistic developments in cinematography, editing and production design that had not been previously available. This greatly broadened the possibilities open to filmmakers. With the growth of the cultural appeal of video games and technical advances within both industries, instances of gamic cinema have become more common and have continued well until the current day, with the release of films such as *Gamer, Source Code* (2011) *Edge of Tomorrow* (2014) and *Hardcore Henry* (2015). I argue that by conducting a comparative study of *Run Lola Run* and *Gamer*, we may be able to examine the role that ongoing technological developments within the video game and film industries play in the development of gamic cinema.

Chapter one begins by providing an outline of gamic cinema. In particular, it contextualises the analysis that Galloway conducted on Gus van Sant's *Elephant* by exploring how video game innovations could be identified within the film, as well as the techniques that were utilised in their translation. Additionally, it also examines Galloway's notion of how the translation of these gamic innovations were meaningful in creating a unique cinematic experience, and what messages, if any, they attempted to convey to audiences. It then moves

on to outline the theory of narrative space, its development within film theory, and its basis within the study of video games to discuss its viability as a multidisciplinary form of analysis. Finally, the chapter also outlines why the conventions of space, movement and perspective have been chosen as points of focus in the analysis of *Run Lola Run* and *Gamer*.

Chapter two begins by examining how space has been constructed within both films. It suggests that space is used within the texts to emulate the innovative nature of game space. By utilising this concept in the construction of their respective narrative spaces, it enables the films to explore concepts such as the player /character relationship. In analysing *Run Lola Run*, it takes in to consideration the popular cultural conventions of video games at the time of its release and explores how Tykwer utilises a variety of film techniques to emulate their visual choreography. The second half of the chapter concerns *Gamer* and how the three distinct spaces of the real-world, Slayers and Society, are constructed. It focuses particularly on how these spaces are used to explore social issues often associated with the rapid rise of media.

Chapter three follows a similar pattern that has been utilised in previous chapters. It begins by examining how the movement of the characters and of the camera is used to construct a form of narrative space which attempts to emulate the immersive gameplay of the 3D third-person action game. Additionally, it also examines how *Gamer* incorporates a similar use of movement to emulate the hyperbolic and sensorial experience of online gameplay.

Finally, Chapter four focuses on how video game perspective has migrated in to the formal grammar of both films. It explores how *Run Lola Run* uses perspective in various instances throughout Lola's journey to emulate the visual choreography of video games. In doing so it also examines how the use of perspective can be used to place audiences closer to the actions and events within the narrative, creating a sense of immediacy that attempts to emulate the sensorial experience to gameplay. Further In examining *Gamer,* a comparison is drawn with the emergence of chaos cinema and David Bordwell's notion of intense continuity to discuss how the use of perspective pushes the sensorial experience to a hyperbolic extreme, to present a cinematic rendition of frenetic gameplay.

Literature Review

In 2002, Geoff King and Tanya Krzywinska published *ScreenPlay: cinema/videogames/Interfaces*, a comprehensive book which contain a range of essays that explore the relationship between video games in a variety of different ways. However, the book is primarily concerned with examining the wide-reaching effects that film has had on video games, rather than video games effect on film. In their introduction, both authors outline that their decision was informed by multiple factors. To begin with, they highlight that within film studies, video games have often been considered as a lower form of media that could not attain the same level of aesthetic significance that was inherent to the cinematic experience. Secondly, they suggest that this form of mistrust was reinforced by the poor critical reception of video adaptations. Finally, they also suggest that few films attempted to explore video games in a meaningful capacity. However, at the time of writing, both authors suggested that although examples of these films were few, they represented the exciting possibilities that video games could offer the filmmaking process. They concluded that as video games grew in popularity, more examples would continue to emerge. As a result, the collection does include some essays which do focus on the impact of video games on film, such as David Cronenberg's *ExistenZ* (Keane, 2002) and *Run Lola Run* (Grieb, 2002). Considering this *ScreenPlay* and many of the works contained therein are cited throughout this thesis in an academic and historical context.

Alexander Galloway's *Gaming: Essay's on an Algorithmic Culture* examines the role that video games have on the modern information age and explores how video games can approach

topics such as social realism and counter-gaming. However, it is the chapter *Origins of the First-Person Shooter* forms part of the primary foundation for this thesis. The purpose of the chapter centres on exploring how the first-person perspective, particularly in the context of the first-person shooter genre, was influenced by cinema. Most crucially, however, the chapter seeks to explore Galloway's concept of gamic cinema and contextualise its meaning and relevance within the purview of this research. Additionally, *Essays on an Algorithmic Culture also* offers insight in to the increasingly permeable presence of video games in media theory and as such is one of the primary texts that form the basis of this research.

Since the concept of narrative space forms, the other primary foundation of this research, it was crucial to develop an understanding of narrative space and how it is utilised within both film and video game studies. Stephen Heath's essay *Narrative Space* explores how narrative space is constructed in film and explores how film techniques can be synthesised to construct a space through which audiences can draw on and interpret meaning. Additionally, in their book *Discourse in Space* (2014), Zsuzsanna Ajtony and Judit Pieldner examine the technical aspects of filmmaking in the construction of narrative space in more depth, offering a more cohesive understanding of the filmmaking process.

Regarding the construction of narrative space from the perspective of video games, Henry Jenkins' essay *Game Design and Narrative Architecture* provides keen insight in to how game design can also be used to construct narrative space within video games. Additionally, the work of scholars such as Wee Liang Tong, Marcus Cheng Chye Tan and Susan Eichner (2014) provide discourse concerning how narrative space is a unifying principle that both film and

video games share. In *Vision and Virtuality: The Construction of Narrative Space in Film and Video Games* Tong and Tan discuss the origins of narrative space within film theory, and its application within video game studies. Their research also provides a practical and technical assessment of the construction of narrative space within video games. As a result, they explore what this phenomenon could mean for both video games and film. Additionally, in *Agency and Media Reception: Experiencing Video Games, Film, and Television* Eichner acknowledges that while film cannot enact the immediacy of interactivity that defines the video game experience, the interpretation of narrative space serves as a form of interactivity itself by inviting audiences to take an active role in the construction of meaning. As a result, she suggests that film viewing is not a passive act but requires the active interpretation of visual information, something that film audiences and video game players both engage.

Since one of the primary goals of this research seeks to offer an analysis of the relationship between film and video games in and interdisciplinary context, it also incorporates research drawn from the field of video game studies. Discourse offered by game scholars such as Espen Aarseth (2004) and Markku Eskelinen (2004) are used to discuss the potential conflict between video game design and the construction of narrative, and by extension narrative space within video games. Additionally, chapter two draws on the work of Jesper Juul (2011) to explore how rule-based game design informs the creation of game space. Finally, Michael Nitsche's (2009) work highlights the similarities (and differences) between real and virtual camera techniques.

Since its release, *Run Lola Run* remains a popular point of discourse within academia. As previously cited, Margit Grieb's essay *Run Lara Run*, published in *ScreenPlay: cinema/videogames/interfaces*, offers a comparative analysis of traits shared by Lola and Lara Croft from the *Tomb Raider* game series, and remains one of the most comprehensive studies on the role of video game conventions within *Run Lola Run*. Margit Sinka's essay *Tom Tykwer's Lola Rennt: A Blueprint of Millennial Berlin* (2000) and Barbara Kosta's *Tom Tykwer's Run Lola Run and the Usual Suspects: The Avant-Garde, Popular Culture and History* (2004) also draw on how popular culture has influenced the representation of Berlin.

In contrast to *Run Lola Run*, relatively little has been written specifically on *Gamer* in an academic context. In his visual essay *Chaos Cinema,* Matthias Stork builds on David Bordwell's concept of intensified continuity to suggest that the emergence of digital cinema has led to an increasingly hyperkinetic form of filmmaking which uses techniques such as dynamic camera movement, unstable camera position, unconventional lenses and rapid editing to create an immersive sensorial experience, rather than preserve spatial continuity. He notes that this experience draws a parallel to the frenetic experience of gameplay and can be used to translate the look and feel of video games in to film form. He concludes that *Gamer* is a perfect example of what he refers to as *chaos cinema*. In doing so, Stork provides a keen technical approach to the development of this more sensory based form of filmmaking, making his piece a vital component in the discussion of *Gamer's* gamic values. In contrast, Steven Shaviro provides support for the film. In his book *Post-Cinematic Affect* (2010), he suggests that cinema is reactionary and that many filmmakers are exploring the possibilities offered by the intersection of digital filmmaking and emerging forms of visual media, in order

to produce new cinematic experiences. Shaviro further claims that video games offer a new and innovative space for experimentation that blurs the boundaries between the ludic and the cinematic. In this context, *Post Cinematic Affect* is invaluable for exploring film in the context of video games influence in a progressive light.

Online resources have played an integral role in the development of this thesis. The proliferation of online journals has been invaluable. The fourth issue of *GAME: The Italian Journal of Game Studies,* published in 2015, is dedicated to exploring the relationship between film and video games. Although not the first video game journal to do so, the issue indicates that discourse concerning the relationship between film and video games is still ongoing and that video game studies has begun to explore these possibilities in more depth. In a similar capacity, the University of California in Los Angeles produces the online journal Mediascape, which includes essays drawn from various areas of audio-visual media including film, game, and digital and new media.

Additionally, *Mediascape's* collection includes a wide variety of video essays. As the primary goal of this thesis is to explore how video game innovations have been translated in to film form, the inclusion of material which could offer dynamic visual comparisons of these audio-visual media became an interesting form of research material. The video essays produced by Matthias Stork, such as *Chaos Cinema* (2012), *Space-Wars: Mapping the Aesthetics of Post-Cinematic City Space in Action Films and Video Games* (2012) and Transmedia *Synergies: Remediating Films and Video Games* (2013) provide an effective guide for developing a

comparative study by offering a side by side comparison of a variety of video game inspired films.

Writing in 2002, King and Krzywinska acknowledged the relative niche nature of films that attempt to emulate video games beyond their aesthetic qualities. However, in the years since, examples of films of this calibre have begun to surface. As a result, Giordano, Girina and Fassone note that the study of the intersection of film and video games has become an exciting and engaging area research in recent years. In light of this, this thesis attempts to provide analysis that contribute, in some capacity, to the ongoing academic discourse on the impact that video games have had on cinema, and what this interaction could mean for the future of film.

Methodology

As highlighted in the introduction, space, movement and perspective are the key components of narrative space chosen to form the basis of this research. The origin of this structure arose from a variety of factors that emerged throughout the analysis of the selected texts. To begin with, all three concepts play a vital role in the creation and interpretation of events within cinematic and ludic spaces. The construction of space within film for example, is highly controlled; sets are created, framed and curated, solely for the purposes of actions and events within a films diegesis. Although entirely digital in structure space within video games is meticulously constructed by game designers as a means through which action can take place, to facilitate the interaction and experience of the player. Secondly, movement in film is primarily dictated through the actions of characters, and the movement of the camera in relation to the character as they move throughout the scene. Whilst movement within video games is uniquely derived by its interactive nature, the movement of video game characters (or in-game avatars) within a specifically constructed on-screen environment parellels that of film.

Film and video games also share a commonality in terms of perspective, particularly concerning the function of cinematic and in-game cameras. In the context of cinema, the camera serves to frame the action; similarly, whilst video games are digital in form, events and actions are universally depicted through an 'in-game camera' that exists non-dietetically in an omnipresent capacity, or where the camera is acknowledged as a component within the games diegesis (i.e rain hitting a 'lens' when the camera is panned up in games such as *Grand*

Theft Auto V). Additionally, the use of the first- and third-person perspectives has a rich history within cinema, and serves, in many games, as an essential and distinct game mechanic. The migration of this shared visual language ensured that perspective served as an important point of study in the comparative analysis of both texts.

The decision to focus on space, movement and perspective also arose due to the use of narrative space as a method of analysis. Indeed, narrative space as a concept can often be considered a broad and often abstract term; Heath acknowledged that multiple components such as the manipulation of time/temporality, framing, shot/reverse shot montage, movement (within the frame and relative to the camera) alternating between the foreground and background, depth of gaze and point of view all play a pivotal role in the construction of narrative space. With such a multitude of factors in place, space, movement and perspective were chosen not only for their relevance, but also to provide a clear and concise analysis of the commonalities that film and video games share, and their relation to the construction of narrative. Despite this, many components fell under the purview of the three chosen subjects and as a result, are discussed to some degree within the relevant chapters.

Although derived from a need to provide a measure of clarity in the context of narrative space, the decision to focus on the three primary components provided some limitations, particularly concerning the relevance of temporality. Indeed, with the migration of the 'bullet time' technique and its depiction in the Matrix trilogy, the depiction and manipulation of temporality already forms a part of academic discussion on to the relationship between video games and film. In choosing not to explore temporality as a primary point of study, an

opportunity to discuss its influence on the filmmaking process in-depth and its evolution over time in the context of the film/video game relationship could not be fully addressed. However, the depiction of and manipulation of temporality in the construction of space, movement and perspective is discussed within their relevance to the respective chapters.

Although film and video games share a commonality in the way that narrative space plays a pivotal role in the construction of on-screen events, one of the most distinct differences between the two mediums is the immediate and interactive nature of the video game experience. Since film cannot enact the immediacy of interaction that exists within gaming, it is reasonable to suggest that that way that space, movement and perspective are translated in to film form is influenced by this dichotomy. Considering this, each chapter explores what impact this has on the way audiences may interpret the construction and interpretation of narrative space within both films. For example, Chapter four examines how the first-person perspective in video games serves to create a sense of identification and heighten the sense of immersion with on-screen events, what film techniques are used to translate the gamic interpretation of the first-person perspective within Run Lola Run and Gamer respectively and what implications this ultimately has on the construction of narrative space in the context of gamic cinema.

Both *Run Lola Run* and *Gamer* were selected for the purposes of this study for a variety of reasons. To begin with, *Run Lola Run* is often invoked in academic discourse as an example of a film that incorporates elements drawn from video games, although they are not directly mentioned or referenced in dialogue. Although *Gamer* is more direct in its acknowledgement

of video game influences, both films are excellent examples of the translation of video game innovations within filmmaking process. Secondly, in the near decade time lapse between the release of the two texts, rapid developments within film and video game technology, the cultural acceptance of video games and their place within the contemporary media sphere have all informed what innovations are translated, and how they are incorporated. Therefore, to elucidate these points, a comparative textual analysis of *Run Lola Run* and *Gamer* served as the primary research methodology within this thesis. Within today's contemporary media, both film and video games exist “in a state of complex and multidimensional relationships" (King and Krzywinska, 2002 :30) which often blurs the lines that define the two forms of media. By utilising a comparative textual analysis of the selected texts, this thesis seeks to offer a concise examination of these intersecting media forms. It also serves to highlight how the translation of ‘innovations’ in *Run Lola Run* and *Gamer* has been informed by the evolution of film and video game technology and the emergence of new popular video game genres.

Finally, the use of the term ‘meaning’ is used within two different contexts throughout this thesis. As highlighted within the introduction, the depiction of video games prior to the emergence of gamic cinema in the early 2000’s primarily served as references to popular culture or as additional revenue streams for existing franchises, and rarely sought to explore how the exchange of forms and conventions could influence each other in a meaningful capacity. In this regard, the invocation of video games did not carry overtly significant or layered forms of meaning. However, as gamic cinema began to develop in the late 1990s and early 2000s the incorporation of video game innovations and convention in to film began to

be influence how events in films were constructed read by audiences, creating additional layers of meaning and interpretation. As a result, the intersection of video games within film began to become ‘meaningful’ rather than referential. Secondly, ‘the construction of meaning’ is also used to refer to how the translation of video game innovations and conventions are used to explore themes that are central to the narrative events of both texts. In this context, the construction of meaning focuses on the role that these innovations and conventions have on the interpretation of issues such as free will, autonomy (or its lack of) determinism and desensitisation.

Chapter One: Gamic Cinema & Narrative Space

The primary goal of chapter one serves to offer a detailed outline of Alexander Galloway's concept of gamic cinema. To begin, it offers an overview of Galloway's analysis of *Elephant and* outlines his finding. It also provides a discussion on how narrative space has been used in film and video game theory and contextualises its use throughout this thesis. Furthermore, the chapter examines how the study of narrative space can be applied to gamic cinema to examine how video games have influenced film.

In his book *Gaming: Essays of an Algorithmic Culture*, Galloway (2006) explores how video games have become a rapidly evolving medium within mass culture, and how they have begun to intersect with other media forms. He notes that certain innovations that are unique to video games have begun to migrate in to the grammar of filmmaking (2006 :62). To examine this claim, he conducted an analysis of Gus van Sant's film *Elephant* in order to explore what innovations are translated, and what cinematic techniques are used. The film closely parallels the events of the Columbine High School massacre, a school shooting which took place in the United States of America in 1999 in Columbine, Michigan. The narrative follows several students as they attend class, socialise with each other, and navigate the school. At the same time, another narrative thread tracks their classmates Alex (Alex Frost) and Eric (Eric Duelen) as they methodically plan and prepare to attack the building. The narrative threads of all of the characters converge when the perpetrators begin the attack and make their way through the school, killing indiscriminately. The labyrinthian nature of the school hallway draws a visual and spatial comparison to the use of linear corridors that are

commonly found in first and third-person games such as *Wolfenstein 3D* (i.d Software, 1992) and *Tomb Raider*. Van Sant uses the third-person perspective heavily throughout the film, often in the form of tracking shots, to follow various characters throughout their day. The combination of this perspective and the movement of the camera closely mimics that of the third person-perspective utilised within video games, as if the film character becomes the cinematic equivalent of a character in a game. Similarly, when the camera tracks the shooters throughout the school, the perspective briefly changes to the first-person, with the gun visible within the frame of the camera.

In the conclusion of his analysis, Galloway suggests that Van Sant draws on the visual idioms of video games not only as an aesthetic choice but as a means of commentary. In the aftermath of the shooting, many possible reasons for the actions of the perpetrators were offered, including access to guns, listening to provocative music and the increasingly violent nature of video games. Rather than ruminate on the possible motives of the shooting Van Sant instead proposes that we may never know their true motives but will always endeavour to search for a reason for the tragedy. In light of this, Galloway notes that films that attempt to translate video game innovations in to their form and content can move beyond simply referencing the visual aesthetics of video games, and instead offer new cinematic experiences that explore the boundaries of cinema itself. He suggests that these films can be categorised as forms of "gamic cinema" (Galloway 2006 :62). While many theorists such as Steven Poole (2000) and Geoff King and Tanya Krzywinska (2002) have previously acknowledged that video games had begun to have an impact on the filmmaking process, Galloway's analysis was one of the first to codify the term and conduct a form of analysis.

Throughout his analysis however, Galloway does not provide a clear or systematic methodology to identify how video game elements are incorporated within film. Despite this, his study does follow a broad structure that opens by exploring which filmmaking techniques are employed to draw a parallel with the visual language and behaviour of video games. It swiftly moves on to explore what effect this deliberate allusion to video game conventions has on the construction of meaning within the film. In doing so his analysis begins to focus particularly on the role that construction of space (through mise en scene and framing), movement within space (of the characters and the camera), and camera perspective (the placement of the camera) play in the creation of these distinct parellels.

In the 1970s Stephen Heath sought to explore how meaning could be constructed in film. He suggested that filmmaking techniques such as "framing, camera movement, movement of characters, shot/reverse shot structure, change of frame size, alternation of foreground and background, surface and depth gaze and point of view" could be combined to create a form of cinematic space that could visually convey elements of narrative, creating what he referred to as "narrative space" (Pieldner & Ajtony, 2013 :55). In this regard then, narrative space can be understood to be the creation of a visual space that formed through the combination of a variety of filmmaking techniques that can imbue the films narrative which additional layers of meanings and interpretations. As a result, audiences can draw new forms of meaning from a film to create compelling cinematic experience. In this regard, Plantinga (2009) suggests that "spectators are motivated by curiosity, suspense, anticipation and other narrative emotions; delight in discovery, and the pleasure of orienting themselves in to the unfolding narrative

events of a fictional world" (Plantinga, 2009 :22). Like Heath, Plantinga proposes that audiences are not passive when watching a film; the act of interpreting the meaning inherent in a films narrative space requires the active focus of ensures that they are actively engaged with the film's narrative. Arguably, whilst film cannot replicate the immediate interaction inherent in the act of playing a video game, the active involvement of interpreting and deconstructing the meaning of on-screen events draws a close parallel to the way in which players interpret and react to on screen events within a video game.

In his seminal essay *Game Design and Narrative Architecture* Jenkins (2004) notes that the construction of space within a video game can also contribute to the interpretation of its narrative. As video game graphics became increasingly more complex, game developers could create highly detailed and diverse game spaces that were constructed in a similar way to space in cinema, particularly through the construction of mise en scene (Girina, 2013 :32). Tong and Tan (2002) note that this shared approach to the construction of space ensures that narrative space can also be defined, constructed and interpreted within video games. They suggest that "the visualisation of the game, as it unfolds in real-time and in a virtual 3D space (rendered by advanced graphics platforms), not only generates an immersive gaming experience but also fosters the construction of a distinct visual narrative" (Tong & Tan, 2002: 98). Video game players are invited to draw narrative elements from the game world in a similar way that film audiences do with film. Additionally, Tong and Tan also highlight that narrative space can serve to create an additional layer of interactivity within video games. Although they acknowledge that the immediate interactivity of video game play is fundamentally unique, they note that the player "is often invited to take an active role in

the framing and composition of on-screen figures and objects that take place in real time" (Tong & Tan, 2002 :98).

As an interdisciplinary concept of study that has a defined role in the fields of film and video game studies, narrative space can serve as an effective means through which to explore how video game innovations have migrated in to film form. In reviewing previous research conducted on narrative space and how it is constructed in film and video games, there are additional key points of overlap. Heath suggests that space, movement and perspective are key in the formation of narrative space in film; this is also reflected in Tong and Tan's research on narrative space in video games. Since they are also primary points of analysis within Galloway's analysis of *Elephant*, space, movement and perspective play a critical role in the study of gamic cinema through the study of narrative space.

Eichner (2014) suggests that space, and the exploration of space, form a critical part of film and video game experiences. However, while space is an important aspect to take in to consideration in studying both forms of media, it must be noted that there are clear differences between the construction of cinematic space and video game space. 3D video games are constructed as "fully rendered actionable spaces" (Galloway, 2006 :63) through which players can explore and reveal the video game space. In contrast, viewers cannot interact with a film's diegetic world in the same way. To characterise this issue, Wolf (1997) suggests that "unlike the film viewer who is led (visually) through the film's diegetic world by the film characters, the video game player has a stake in the navigation of space" (1997 :13). Despite these differences however, Walther (2003) suggests that as audio-visual media, film

and video games are unified through the mediation of their spaces; “they both depict space; they take place in space; and they invite recognitions that are spatial in nature" (2003 :16).

Movement also plays a pivotal role in the construction of film and video games. Carroll (2016) argues that movement within film is created primarily through two different forms: through the movement of figures within the frame, and of the movement of the camera itself (2016 :42). Movement within 3D video games is similarly constructed when the player manoeuvres the player character through the game space. Additionally, like cinema, video game action is shown through a form of virtual camera. Stork (2013) notes that while cinematic techniques have long been used by the virtual camera to construct and convey spatiality, the evolution of film technology and the emergence of digital cinema has made it possible for film to emulate, in some capacity, the spatial choreography of video games (2013: 42).

Finally, since both forms of media utilise a camera (both real and virtual) to construct and convey action, perspective is an integral part of the film/video game experience, as it serves as the window through which the player/audience view, experience and interpret events within diegetic space (Nitsche, 2009 :77). In a similar capacity to movement, film perspective has been used within video games, leading to the development of game titles that are often referred to as ‘cinematic’ in nature. As video games have had an increasing impact on the filmmaking process, video game perspective has begun to migrate in to film, offering the cinematic experience new modes of vision (Giordano, Girina & Fassone, 2015 :52).

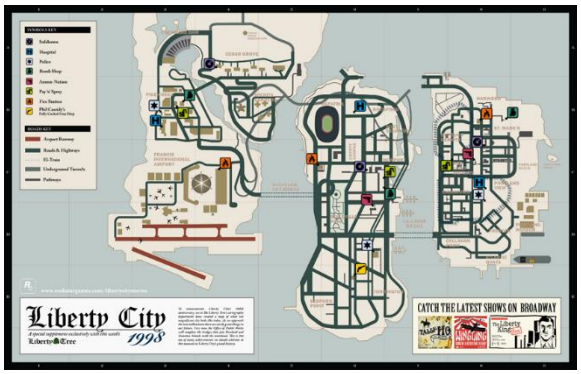
Space, movement and perspective, are integral to the construction of narrative space in film and video games. Additionally, they are also central points that Galloway highlights in his analysis of gamic cinema. Therefore, by studying these unifying principles, this thesis seeks to explore how the study of narrative space within Run *Lola Run* and *Gamer* can elucidate how they translate video game innovations in to their form and content, and what meaning this conveys to the viewer. In doing so, it hopes to highlight the effects video games could have on the future development of cinema.

Chapter Two: Cinematic Game Space

The focus of this chapter seeks to explore how the construction of space within *Run Lola Run* and *Gamer* draws on the innovative nature of video game space. Indeed, since the release of films such as *Tron*, filmmakers and audiences alike have been fascinated with the relationship between virtual and cinematic spaces. While cinematic space has migrated in to the construction of video games, Stork (2013) suggests that films have often struggled to fully explore the possibilities that game space can offer the cinematic experience. He notes that many video game films, particularly adaptations, rarely explore "the full logic of game space" but rather depict "extravagantly updated cinematic space" (2013 :40). Indeed, in their examination of *Lara Croft: Tomb Raider*, King and Krzywinska (2002) posit that the film has more in common with cinematic conventions then it has its video game counterpart (2002 :19). However, as Galloway has previously acknowledged, video game space is defined by its continuous actionable spaces, through which players navigate. In contrast, film action is constructed through the use of montage. Considering this, how do *Run Lola Run* and *Gamer* incorporate the look and feel of a game space in to their form and content?

From the outset *Run Lola Run* draws on the visual choreography of video games. Following the opening credits, the top down perspective is used to give the viewer an introduction to the city of Berlin (Figure 1). In doing so, it draws a visual comparison to the top-down perspective that is often utilised within video games. It parallels the use topographical maps which are used to illustrate the game space to the player and serve as a visual guide (Figure 2). As a result, the use of the shot invites audiences to view Berlin not only as a city, but as a

form of game space. From above, every street and avenue is made visible. Additionally, landmarks such as the Berlin Hauptbahnhof can easily be identified; like a video game player, the film audience is given the chance to acclimate to the space before the real game begins. In the next instant, the camera descends towards the city and races in Lola's apartment; the game is on.

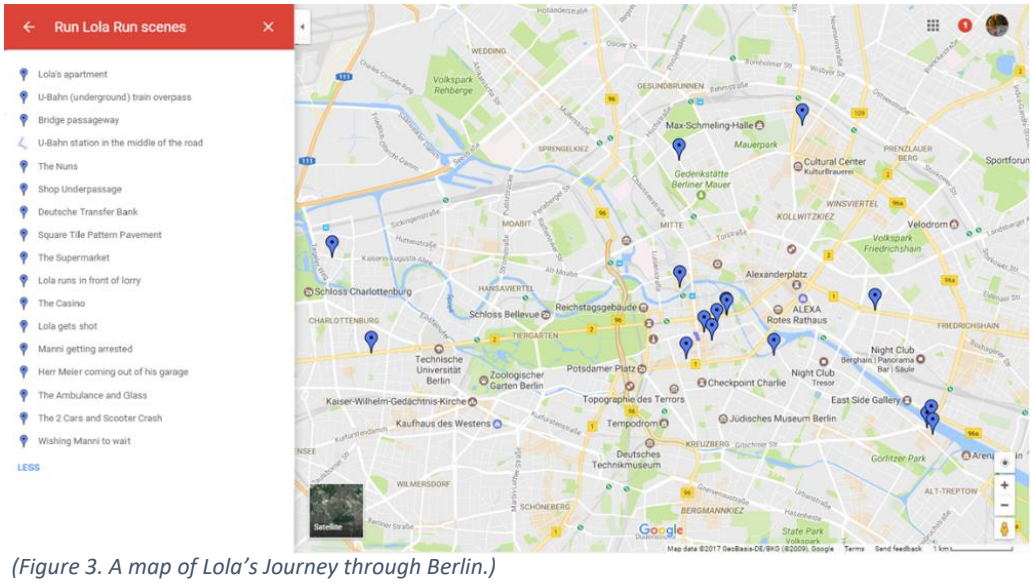


(Figure 1 and 2. The top-down perspective in Run Lola Run vs Grand Theft Auto III.)

Critically, the top down perspective is the only instance throughout the film where Berlin is depicted as one cohesive space, either as a whole or in terms of spatial continuity. From this point on, the city is heavily fragmented through a rapid and unconventional form of editing. Yet, why does Tykwer purposefully present Berlin as a wildly fragmented space? In an interview discussing the development of the film, director Tom Tykwer acknowledged that even in the 1990s, Berlin was still trying to recover from the fragmentation caused by the separation of West and East Germany in the aftermath of WWII. For Berlin, this division was not only cultural but also acutely physical as the country struggled to recover its sense of national identity. In the aftermath of the fall of the Berlin wall, the city underwent an

extensive period of planning and reconstruction as the German government attempted to reform the city. This, Tykwer suggests, left Berlin as “an in-between zone” which imbued it with the feel of a “synthetic space” (Staunton, 1999 :15). Indeed, as *Run Lola Run* was shot entirely on location within the city, construction work can still be seen throughout the film as Lola runs past, through and over building sites which are in various stages of completion.

From the outset, Lola’s journey is presented to the audience as a continuous and linear path. For example, when she leaves her apartment in the first run, she sprints down the road that is directly outside, before taking a right turn, which takes under the S-Bahn, and eventually along the Oberbaumbrücke. However, while the route initially seems entirely linear and logical, “the space portrayed in the film is a sequential chain (…) composed of wilfully rearranged parts” (Sinka, 2000 :104). Indeed, much of Lola's run throughout Berlin is constituted of impossible trajectories. When the locations of her journey through Berlin are mapped out, the route is physically and geographically impossible (Figure 3).



(Figure 3. A map of Lola’s Journey through Berlin.)

In another instance the occurs later in the first run, Lola makes her way along Friedrichstraße, a scene which is shot from an aerial crane that tracks her movement. The camera is positioned in such a way that the street sign is clearly visible to the audience as she turns a corner. The scene cuts part way through her turn to show her running along a new street which is now filmed from a front tracking shot, enabling the audience to see where she has just come from. However, the street sign now indicates that she has emerged from an entirely different street, (Behrenstraße) rather than from Friedrichstraße (Figures 4 & 5). In this instance spatial unity is constructed by matching the action, in this case Lola's movement, seamlessly to the next scene. However, Tykwer subverts this spatial unity by indicating the impossible nature of Lola's journey through the inclusion of the sign posts. Similarly, Wedel (2008) notes that spatial unity is also subverted though the notable lack of popular landmarks that are depicted. Although prominent Berlin landmarks such as the Oberbaum Bridge and the German Historical Museum are features within the film, Tykwer consciously avoids drawing Lola's route across signature tourist attractions, contributing to the notion that the Berlin within *Run Lola Run* serves as a form of "abstract or virtual urban space" (Wedel, 2008: 141).


(Figure 4. Lola turning from Friedrichstraße vs Figure 5. Lola emerging from Behrenstraße)

In her analysis of the film Flinn (2003) opines that the depiction of none linear locations, and the conscious omittance of key landmarks is purposeful, challenging both national and international audiences to take an active role in identifying these contradictions (2003 :208). In these instances, the interpretation of the films narrative space, elicits a form of interactivity itself, a concept which has previously been highlighted by Plantinga (2009) and Ton and Tan (2002). Although we may identify Berlin from these landmarks, the purpose of the shot is not to present the city as a *setting* for the film, but as a distinct and unique *space*. In discussing the unique spatial qualities of video games, Bittanti (2001) suggests that within video games, game space serves as a “specific, dedicated, and almost sacred space" that exists purely to facilitate the gameplaying experience (2001 :115) By consciously and purposefully fragmenting Berlin and then cutting it back together through the use of editing and the unifying act of Lola’s movement creates a space that exists specifically for Lola’s journey. By arranging the city in this way, the Berlin that exists within *Run Lola Run* is not simply a cinematic space but becomes a cinematic parallel to the construction of space within video games (Mesch, 2000).

Tykwer also emphasises Berlin’s virtual and synthetic nature by drawing a distinct comparison to the aesthetic space of loading screens and cutscenes that are used within video games. When Lola is shot at the end of the first run, the scene fades out and a new scene, its place. In centre frame, Lola and Manni are show lying in a bed which is bathed in a distinct red colour palette (Figure 6). Lola asks Manni how he can be sure his love for her is genuine and unique. Manni replies that he believes his love is an empirical given; he loves her because his heart tells him he does, yet Lola remains unsure.

(Figure 6. The Red Scene. Lola questions Manni's love for her after she pauses time.)

However, the scenes position within the narrative lends the scene a sense of ambiguity and may be used to serve two possible functions. One the one hand, the scene can be interpreted as a flashback that Lola is experiencing in her last moments. The use of dialogue in the scene also contributes to this reading, as Lola questions whether concepts such as love and fate are truly absolute at the moment of her death. However, on the other hand, if the scene is read in the context of its emulation of virtual game space, the scene also functions in the same capacity as a continue screen does within video games. For instance, since the scene immediately follows what we may assume is Lola's death, the sequence may be interpreted as extra-diegetic, existing outside the spatiality and temporality of the scene. Continue screens in video games serve a similar function, pausing the action within the game space in order to give players a chance to consider their next move. The use of dialogue within the scene also supports this interpretation, advancing the narrative forward through exposition. Towards the end of the sequence Manni questions if Lola wants to leave him, to which she replies that she does not know. Read in the context of a continue screen, the scene literally

given Lola pause to decide if she will give up her mission, or consciously decide to return to the game.

Not only does the visual construction of Berlin within *Run Lola Run* serves as a parallel to virtual space within video games, but it also alludes to the concept and functionality of video game mechanics. In discussing the development of game space, Juul (2011) outlines that "level design of a game world can present a fictional world and determine what players can and cannot do at the same time. In this way, space in games can work as a combination of rules and fiction" (2011 :163). In the film's opening sequence Herr Schuster (Armin Rohde) speaks directly to the audience about football. He states that "the ball is round, the game lasts 90 minutes, everything else is pure theory". In this instance, Schuster remarks on the categorical nature of the rules of football; these rules are universal. However, everything that happens within the match, for example who wins and how that happens, is entirely dependent on the actions of those playing the game. After his statement, Schuster kicks a ball up in to the sky, almost literally 'kicking off' the events that follow within the films. The rules of Lola's game world are introduced in a similar fashion right at the beginning of her journey, during her phone call with Manni. She has 20 minutes to secure 100,000 deutsche marks and run across town to meet him. If she does not, Ronnie will kill him. However, in this instance, the boundaries of these rules are not explicitly stated. Instead, they are revealed to the audience, and indeed Lola herself, through actively navigating and interacting her environment. In particular, Twyker draws on the law as a stand in for the concept of rules within video games (Grieb, 2002: 158). When Manni and Lola break the law in the first run, Lola dies. Similarly, in the second run Lola fails to convince her father to give her the money

she needs; in desperation she robs the bank itself. Although she arrives in time to give Manni the money in time, he is hit and killed by a passing ambulance. In essence, when Lola's actions break the law, the game world reacts accordingly. Finally, in the third run Lola, draws on her prior experience to work within the parameters of the game environment. However, when this places her at a disadvantage, she not only rebels against the law, but the very fabric of reality itself. Drawing on one of her powers (a scream that is used throughout the film), Lola is able to influence a game of roulette to her advantage. Ironically, through cheating at the game of roulette, Lola subverts the confines of her cinematic game space, and wins the money that she needs to save Manni.

Finally, an allusion to game space is also made at the end of film during the conclusion of the third run. Lola arrives at the crossroads with the money she has won, but Manni is nowhere to be seen. The once busy street, seen in both previous runs is notably vacant, with no pedestrians or traffic in sight and no movement save for Lola herself. Grieb (2002) notes that the construction of mise en scene in this scene parallels the construction of cutscenes within video games (2002 :163). Particularly it draws a comparison with the concept of a final cutscene which plays at the end of a game. In this instance, the use of the mise en scene indicates that like a video game character, Lola has arrived at her final location; she has won the game. All that is left is to conclude the narrative.

However, this final scene also draws on a film technique used at the beginning of the film. When Lola arrives at the crossroads, she stands in the middle of the street in frantic hopes of finding Manni. This shot is initially framed from an elevated position, which moves down to

her level. The shot itself parallels the transition used at the beginning of the film when Lola exits her building. However, where it served to indicate the audience's transition in to the game space of the synthetic Berlin, its use in the concluding scene serves another purpose. Indeed, although Lola has arrived at her destination possessing more money than she ever dreamed of, she seems disorientated, as if she is taking in her surroundings with a level of uncertainty that belies her kinetic journey through Berlin (Figure 7). As she attempts to take in her vacant surroundings, she turns around in on a 360^{o} axis. As she does so, the camera alternately rotates with her, as if she is re-orienting herself to this new, decidedly calmer space.

(Figure 7. A disorientated Lola transitions from the game world to the real world.)

In this instance, Lola's behaviour, combined with the use of the elevated crane shot indicates that Lola is seemingly transitioning from the 'game space' that existed purely for her journey and re-entering the 'cinematic space' (Parshall, 2012). Eventually, Manni arrives in the distance, having already found the stolen money in a chance encounter, and returned it to his boss Ronnie himself. The film concludes with a freeze frame of Lola smiling as Manni asks her what is in the bag.

So far, this chapter has discussed how Tykwer utilises filmmaking techniques to present Berlin as a cinematic interpretation of game space. However, what forms of meaning can be drawn from this allusion, and what does this contribute to the interpretation of the films narrative space? In discussing the gamic nature of *Run Lola Run,* Margit Grieb suggests that by presenting Berlin as an interactive environment Tykwer characterises Lola not merely as a character, but as the embodiment of an active video game player (Grieb, 2002: 164). Indeed, despite the cut and paste nature of the city that is created by the films fragmented editing, Lola is comfortable in her world; "not once does she pause to ascertain the right direction, for she never experiences spatial dislocation. Her metropolis contains no fragmentary disassociated spaces" (Sinka, 2000 :25). No matter how disjointed her trajectory is, Lola tirelessly navigates through the city to reach Manni, determining the best routes and overcoming obstacles along the way. If Berlin can be considered an emulation of game space, then Lola serves as the game's protagonist; her journey through Berlin then, emulates a form of gameplay (a concept discussed in further depth in the next chapter). In essence, "Lola's compulsion is to master her mission perfectly, much as a player strives to advance to the next platform in a video game or a virtual world" (Naughton, 2008 :197). Indeed, Lola's journey shares many traits with the role of a video game player.

For example, Lola possesses a variety of powers or abilities that parallel mechanics often encountered through gameplay. When she dies in the first run, she consciously returns the world back to the moment she first began her journey, mimicking the reset option available to video game players. She draws on this ability once again to return the same point in the

second run when Manni is killed by an ambulance. Yet the quality that Lola shares with the role of the player is her ability to remember her previous actions, and their consequences, as she transitions between runs. In the first run, Manni instructs her in how to remove the safety on a firearm so that she can help him rob the supermarket. In the second run, she steals a gun so that she can take her father hostage and rob the bank itself. In desperation, the bank guard, Schuster points out that Lola has no idea how to use a gun (00:43:05). Although this assumption was correct before the events of the first run, Lola consciously draws on what she learned during the first run to switch the gun's safety off, and subsequently fires a few shots in to the wall to prove that she can use it. Her ability to draw on her knowledge of previous runs in this capacity further suggests that she represents a conscious player, rather than a passive game character (Grieb, 2002: 164).

In his analysis of the film, Whalen (2000) suggests that Tykwer purposefully constructs the film's narrative space to draw on the audience's familiarity and experience with video games to explore the film's central themes of chance, free will and determinism. By embedding concepts such as game space, game rules, and agency in to its narrative space "*Run Lola Run* attempts to engage the viewer in the production of meaning rather than simply playing to the passive audience generally associated with this popular media form" (Grieb, 2002 :161). In this context, Grieb notes that *Run Lola Run* not only depicts a meaningful use of video game innovations and conventions, but that they also play a pivotal role in the construction of meaning. By encouraging audiences to draw on their understanding of video games actively, Tykwer invites them to experience the sensation of "orienting themselves in to the unfolding narrative events of a fictional world" (Plantinga, 2009) through Lola's kinetic navigation of a

virtual Berlin. Ultimately, Grieb (2002) suggests that *Run Lola Run* does not merely draw on the conventions of video games to capitalise on their popular aesthetic form, but in fact attempts to challenge the conventions of cinema itself. By translating the concept of video game space in to film, *Run Lola Run* highlights its limitations, but also shows that cinema's often-restrictive nature can be subverted in a variety of engaging ways, creating new audio-visual experiences.

In studying how video game conventions have been depicted in film, Bittanti (2001) notes that game space is often incorporated in to film in three distinct capacities. To begin with, video game space can manifest as a distinctly sperate space from reality, and is a common theme often used within video game-based films. Indeed, the release of *Tron* brought with it a new wave of interest in the depiction of virtual game space in film. Secondly, video game space can be incorporated within the real world which is then informed or affected by its conventions. Lastly, the conflict that arises from the intersection of the real virtual world, which forms the basis of films such as *Lawnmower Man* (1992). In this form of categorisation, *Run Lola Run* and *Gamer* fall within the second category. Although both films incorporate the concept of video game conventions in to their form and content, both films are set in the real world, rather than in virtual environments created using computer-generated imaging (CGI), which has often been the main form through which to depict virtual worlds or game spaces in many video game-based films. Indeed, in translating the concept of game space in to a real-world setting, *Run Lola Run* and *Gamer* fall within a distinct, niche category of video game inspired films. However, in comparison to *Run Lola Run*, *Gamer* offers a distinctly more literal and visceral interpretation of game space.

This difference can be attributed to aspects of both stylistic and technical choice. As Margit Grieb has previously highlighted, *Run Lola Run* draws much of its gamic influence from 3D action/adventure platformers and particularly which marks a visual comparison to the *Tomb Raider* series. However, *Run Lola Run* draws heavily on the visual choreography and mechanics of the series rather than make direct or overt references to its aesthetic conventions. In contrast, *Gamer* not only emulates the hyperbolic visual choreography and mechanics of the online multiplayer games from which it finds its inspiration, but also draws on overt aesthetic references to construct a more literal allusion to game space. To do so, directors Mark Neveldine and Brian Taylor (known professionally, and henceforth, as Neveldine/Taylor) break away from traditional forms of camera work, and instead drawn on digital filmmaking to translate game space in to reality to create "a hyper-violent, visually and aurally frenetic example of classic dystopian fiction" (Sperb, 2015 :148). They utilise a hyper-stylised form of film editing and techniques to create a diegesis in which "spectacle, virtualisation and 'entertainment' (…) have been pushed to their logical extremes" (Shaviro, 2010 :94).

However, to understand the construction of game space within *Gamer*, we must first understand how the real world is depicted. From the outset, the real world of *Gamer* is dominated by the ubiquitous nature of media in all forms. Indeed, the consumption of media is so popular within the film's diegesis, that it invades every facet of day to day life. For example, advertising for the two game spaces within the film is so pervasive that they can be seen across the world, from the favelas of Brazil to the Shinjuku crossroad in Tokyo. This

aggressive marketing is not limited to designated advertising spaces such as billboards or screens but permeates nearly every available surface, including historic landmarks (Figure 7). The consumption of media reduces the real-world segments of *Gamer* to a place in which “the ubiquity of gaming has become nearly absolute" (2010 :148).

(Figure 7. The saturated real world mediascape of Gamer.)

The second world presented within the film is Slayers, a real-life team deathmatch game mode in which players much reach a save point to survive and pass in to the next round. In each match, players must fight against waves of enemies through increasingly more violent and hyperbolic game areas. These spaces are set within heavily damaged cityscapes that represent extensive urban decay, from crumbling brutalised concrete to abandoned warehouses and as such are visually distinct from the real world. Rusted shipping containers are used throughout the game space as both gameplay obstacles and borders of the game space. Additionally, the game space incorporates a heavily desaturated colour palette which is combined with the use of chiaroscuro lighting to heighten the stark brutality of the environment (Figure 8). Additionally, the game area itself is also populated by other avatar

characters known as Genericons, who are often lower-level criminals that are offered immediate parole if they are able to survive a single game session. In contrast to the Slayers however, Genericons are controlled by an extremely basic A.I rather than autonomous players, which puts them at an extreme disadvantage within the game world and are often killed in high numbers. Their purpose in the game world is similar to the use of non-playable characters (NPC's) in video games and are often used to populate the game space. In these instances, Slayers draws many structural and aesthetic parallels to the modern first and third-person shooter video games such as the *Call of Duty: Modern Warfare* (Infinity Ward, 2004), and the *Gears of War* game series. (Epic Games, 2006).

(Figure 8. The game space of Slayers.)

The second game space within *Gamer* is Society, a game mode which functions as a form of real life, life simulator game. Players can pay to take control of real-life individuals (who are often referred to as actors) and explore the game space. In exchange, the actors are paid to give up their autonomy and be controlled by the players. Society's colour palette, in stark contrast to Slayers, is extensively hyper-saturated. Offensively bright colours are worn by the avatars which is emphasised by the white and pristine architecture (Figure 10). The player's

who populate this space have their gamer tags (online user-names) are suspended above their heads to identify them to other users, although these tags are often both ambiguous, garish and even hypersexualised in nature. When players take control of their avatars, they are given free rein to decide how they dress, talk and interact with each other, drawing a comparison to life simulation games such as *The Sims*, *Second Life* and *PlayStation Home* (Sony Interactive Entertainment, 2008).

(Figure 10. The game space of Society.)

Drawing a comparison with *Run Lola Run*, the game spaces of *Gamer* are still governed by a form of rules and game mechanics. For Slayers, each entrant must reach a save point to end their game session. If they successfully complete 30 matches, they are absolved of all crimes and are free to return to their lives. Because the participants are convicted felons, weapons are only activated when they enter the game zone, and each environment has strict boundaries that use explosives to deter any escape attempts. Indeed, when Kable attempts his own escape towards the end of the film's narrative, his heads-up display (HUD) warns that

he is entering a restricted area, and countermeasures are launched, at first to force him back in to the play area and then to neutralise. Similarly, the actors within Society are repeatedly assured that the nano-machines, which serve as the control mechanism of players, only activate when they enter the game space, and that they are deactivated when they leave. Despite these rules however both game areas remain hyper-violent spaces. In Slayers, players are encouraged to be as violent and aggressive as possible and are offered an array of weapons upgrades to ensure entertainment value. Similarly, crimes such as causing physical harm or committing sexual assault not punishable offences within Society; because avatars have agreed to surrender their autonomy, beyond causing death, players can do what they please with little to no consequences.

Although *Gamer* is more literal in its approach to referencing video games aesthetic conventions, both films share similarities in how the allusion to game space is translated and conveyed through cinematic technique. In *Run Lola Run*, Tykwer frames the innovative nature of video game space through a hyper-reactive editing style and rapid, unconventional, shot sequences which depicts Berlin as a form dedicated synthetic space. *Gamer* utilises similar techniques, but by drawing on the possibilities offered by digital cinema, pushes these conventions to logical extremes, utilise frenetic and aggressive editing techniques, to emulate the fast-paced sensation of online multiplayer environments within Slayers. In doing so, Neveldine/Taylor “do not ask viewers to contemplate the clarity and coherence of space but to react to its visceral force” (Stork, 2012 :50).

Within both *Run Lola Run* and *Gamer*, Tykwer and Neveldine/Taylor draw on the concept of game space to explore a variety of themes through the interpretation of their respective narrative space. Bittanti (2001) acknowledges that when video game inspired films attempted to merge together the concept of real and virtual space, they often represent controversial or negative elements of video game culture. However, the allusion to game space within *Run Lola Run* offers a distinctly positive meditation on video game conventions; Lola is liberated by the ludic nature of her game space, which she navigates not as a game character but the embodiment of the player. In doing so, the film explores concepts such as free will, chance, and agency. In contrast to Tykwer's more romantic exploration of themes of agency, chance and determinism in *Run Lola Run*, *Gamer* takes a decisively more nihilistic tone. Mason (2016) suggests that Neveldine/Taylor construct the hyper-saturated and hypersexualised worlds of Society and Slayers to make audiences feel uncomfortable and off balance, yet "it is from these moments where thoughtfulness can occur, where the film might engage viewers with deeper issues" (2016 :3). By presenting a hyperbolic interpretation of contemporary media, Neveldine/Taylor draw on the concept of game space to invite the audience to mediate on the dangers inherent in our contemporary media.

This darker iteration of gamic conventions is emphasised to great effect when Angie (Amber Valletta) enters Society's game environment for the first time. A close-up shot captures the game space as it is reflected in her eyes. When she blinks, the shot transitions to a point of view perspective, however, the shot is also framed with a black border, and an excessive use of light obstructs most of the remaining view, creating a narrow field of vision. The combination of these technique serves to create a sense of distance and detachment from

the overwhelmingly vibrant game space (Figure 11). shot transitions to a mid-shot of Angie as she surveys the area, yet the surrounding environment is presented as blurred and distorted. This series of shots serves to represent the transition of power as Angie's body is taken over by her player, and that her autonomy has been suppressed. Ultimately, she becomes a passenger within her own body (Figure 12).

(Figure 11 and 12. Angie enters Society.)

When Angie relinquishes control of her autonomy in this scene, she is placed at the mercy of Gorge (Ramsay Moore), an obsessively depraved individual who uses her to act out his perverse fantasies. To denote the control that he has over her, Neveldine/Taylor utilise a series of cuts that transition between Angie in the game space, and Gorge at his home. In one instance when Angie is forced to interact with another actor, the camera cuts to Gorge's residence for the first time. The scene at first focuses in on a series of controllers (Figure 13) that are stacked next to Gorge's gaming chair; they serve as a visual motif that highlights the amount of control that Gorge exercises over Angie. The next shot cuts to an extreme close-up of Gorge himself (Figure 14). These scenes are depicted with a heavily desaturated, monochrome colour palette that utilises a form of chiaroscuro lighting, which emanates from the computer screens that Gorge uses to play the game.

(Figure 13. Alluding to control in Gamer.)

The next shot cuts an extreme close-up of Gorge as he talks to another player through Angie. When he speaks, the next shot match cuts from him to Angie who mirrors his position as she repeats his words (Figure 15). Despite their virtual connection Gorge and Angie are never shown inhabiting any form of unified space; they are never framed side by side, nor do they ever directly interact with each other throughout the film. Their real worlds are so far divorced that they could only ever be linked though a virtual connection (Shaviro, 2010). Using the same shot sequence, the male avatar that Angie speaks with is revealed to be an obese and reclusive woman, who uses her own character for the same reasons that Gorge does. In this respect, the use of actors in Society not only allows them to act out their dark impulses with little to no consequences, but also enables them allows them to do so with complete anonymity. In an earlier scene, Ken Castle, the creator or Slayers and Society gives an interview where he poses the question: “We live in society; we visit Society. I mean, which one’s more real, really? I mean, which ones really real, you know what I mean?”. He believes that individuals are not truly themselves within the society of the real world; in contrast when they are not constrained by legal or moral consequences, they reveal who they truly are and what they are capable of; ultimately, Society is more real than reality itself.


(Figure 14 and 15. Gorge speaks and Angie repeats.)

A similar use of the techniques that depicts the relationship between Gorge and Angie is also used to show the interaction between Simon and Kable. Although Simon is controlling Kable, they are not able to communicate; their interaction is strictly limited to Simon's commands and Kable's ability to execute them. When they are engaged in a match, their interaction is conveyed through a series of shots that cuts between their locations. However, Simon is offered the opportunity to use an illegal game modification which will enable him to communicate directly with Kable. Once they establish contact, Neveldine/Taylor present both characters within the same unified space (Figure 16). Rather than emphasis their new connection however, the scene shows how far removed Simon is from the violence of the game, despite being the one to pull the trigger. Even when he is able to communicate with Kable, Simon is still apathetic towards his actions. In one exchange he shares with Kable he even defends the existence of Slayers, by noting that its roster is made up of death row inmates and that they "had it coming". In this respect, Neveldine/Taylor note that our contemporary media landscape can reflect the state of our society Within *Gamer* The saturation of hyperbolic and violent forms of media has led to the desensitisation of audiences who have become apathetic to the real-life consequences of their actions.

(Figure 16. Simon and Kable within the game space.)

Hopkins (1994) suggests that space within cinema is "an ideologically charged cultural creation whereby meanings of space and society are made, legitimised, contested and obscured" (1994: 47). In this regard, Hopkins acknowledges that cinema can be used to explore contemporary cultural issues. Similarly, Shaviro (2010) opines that video games are also able to examine issues that arise within our contemporary media climate, suggesting that "gaming, like other media forms and aesthetics forms before it is a kind of cutting-edge space in which to experimentally implement, and explore in advance, the social arrangements that are subsequently deployed throughout all of history." (2010 :107). By drawing on the structure, function and aesthetic of video game spaces, Neveldine/Taylor attempt to explore the impact that the rapid rise of media can play in our contemporary society.

In drawing on the concept of game space, Tykwer and Neveldine/Taylor explore how video games can be used to subvert the limitations of film to create new and dynamic cinematic experiences. By utilising an unconventional editing style in *Run Lola Run,* Tykwer constructs a

version of Berlin that blurs the boundaries between cinematic and gamic space. In doing so, it serves as a dedicated space through which Lola enacts her kinetic journey. Neveldine/Taylor also draw on the concept of game space within *Gamer*, however they push its translation to logical extremes, by using a heavily fragmented editing style and hyperbolic aesthetic. Ultimately both films create a cinematic interpretation of game space "truly look and feel like a video game" (Stork, 2012 :129). Finally, both films construct their narrative spaces in such a way as to explore how video games can be used to construct new levels of meaning within their films. While *Run Lola Run* uses these unconventional cinematic techniques to challenge the boundaries of cinema, *Gamer* creates a narrative space which serves as "a kind of cognitive and affective map of contemporary game space which highlights its extensive possibilities and its limitations" (Shaviro, 2010 :130).

Chapter Three: Movement & Gameplay

In his definitive essay *Narrative Space*, Heath (1976) suggests that movement plays a vital role in the construction of narrative space (1976: 74). Indeed, the essential nature of movement within cinema can be traced back to the silent films of early cinema. Technical limitations such as static camera placement and the absence of extended dialogue could be countered by creating spaces where the actions of the actors played a pivotal role in the construction of meaning. Character movement became one of the primary forms through which audiences understood the film's narrative. In this capacity, movement within film shares many similarities to video games. As interactive forms of media video games "depend upon an art of expressive movement, with characters defined through their distinctive ways of propelling themselves through space" (Jenkins, 2006: 36). From point and click adventures to modern fully rendered 3D titles, movement has always been a primary mechanic through which video games are experienced. As Schweizer (2013) notes, game spaces "are neither static environments nor stationary views; rather they are experienced through motion, action and play" (2013 :1).

Although movement is a defining aspect of film and video games, the way that it is constructed is not entirely coterminous. As Galloway (2006) notes "where film montage is fractured and discontinuous, gameplay is fluid and continuous" (2006 :65). Although film montage has migrated in to video games through the cinematically interactive games such as *Heavy Rain* (Quantic Dreams, 2010) and more recently *Detroit: Become Human* (Quantic Dreams, 2018), gameplay within video games typically does not require editing. However, in

the previous chapter, discussion concerning the emulation of game space centred on the use of rapid, unconventional and chaotic editing; how then can the innovative nature of gameplay be translated in to film form, and what does it mean in the context of the film's narrative space?

As its name suggests, movement plays a vital role in the events of *Run Lola Run*. Indeed, the recurrent use of the word 'Run' in the films English title serves two key functions: it outlines the repetitive nature of the film's narrative and serves to emphasis the integral role that movement plays in Lola's journey. Interestingly, the film's original German title (*Lola Rennt)* translates to '*Lola Runs'*. In this case, the name also has a dual meaning; in the literal sense Lola does run; in all three narrative threads, she traverses the city at full speed. However, it also functions as a statement of Lola's character; she is *made* to run. Not only is she driven to tackle her mission head-on, but she also exists for it. In the films director's commentary, Tykwer states that: "I like the image so much of a running woman with a lot of passion and, in a way, desperate because it combines very basic elements of cinema; it shows an energetic body, and it shows movement and emotion in one picture, and I think that's what cinema, for me always seems to be about" (Tykwer, 00:34:54). In this instance, Tykwer suggests that Lola embodies the vitality of cinema itself; passion, drive, and movement. The development of Lola in this regard shares many similarities with that of a video game avatar. They exist for the game, and through them, the audience experiences all that the game world has to offer. Grieb (2002) suggests that Lola shares many similarities with Lara Croft, the protagonist of the *Tomb Raider* series, and concludes that "most importantly, it is both women's incessant drive to reach their destination that brings them together. The viewer's identification with

both characters is not so much embedded in an emotional response as it is kinetic" (2002 :161).

Indeed, even when Lola remains still, movement defines her actions. For example, after she ends her first call with Manni, Lola quickly begins to work through a mental checklist of people who might be able to aid her in her mission. Although she is depicted calmly looking forward, the camera repeatedly spins on a 360^{o} axis around her as still frames of the people who might be able to aid her are introduced through a series of randomly placed jump cuts (Figure 17). The combination of the scene's shot and speed draws on the visual choreography of video games, particularly on character/level selection screens used in the introductory stages of games such as *007 Goldeneye* and in more contemporary titles like *Overwatch* (Blizzard Entertainment, 2016). However, the scene not only replicates this aesthetic, but attempts to parallel, in some capacity, the cognitive effect of gameplay. The use of jump cuts to depict her decision-making process, and the frenetic acceleration of the scenes' pace not only evokes the temporality often found within gameplay but also embodies, in some capacity, the rapid decision-making process that players are often called upon to make in video games. with the limited parameters of her mission set out, Lola is forced to choose quickly and efficiently. As she begins to narrow down her choices, character profiles are filtered out of the jump cuts, until her father is the only one that remains as a viable option. Subsequently, the pacing of the scene begins to slow down until it rests on his still frame. Once Lola arrives at the best course of action, she swiftly leaves her apartment and the 'game' begins.

(Figure 17. The 360º axis: Lola forms her strategy.)

The heavily fractured editing style and frenetic pace that tracks Lola through Berlin not only frames the city as a game space but is used throughout the film to create movement that is comparative to the gameplay experience. Previous chapter three highlights the notion that Lola actions emulate the behaviour of a video game player. As she begins to master the 'game-like' space of Berlin, these cinematic techniques change and evolve with her. For instance, when she leaves her apartment for the first time, a crane shot captures her from a high angle and descends to her level as she runs towards it. The next scene cuts to Lola running down the road outside of her apartment. Although the scene itself is brief, jump cuts are used as the camera tracks her movement (Figure 18).

(Figure 18. Lola runs down the street outside her apartment in the first run.)

In the same run, Lola's journey takes her over the Oberbaum Bridge. In this sequence, the camera changes position to a profile shot that tracks Lola's lateral movement. As the shot pushes in closer, the pillars of the bridge punctuate her movement, which serves to accelerate Lola (Figure 19). Additionally, actual editing cuts are used to cut back and forth between the profile shot and a mid-shot, which tracks Lola as she runs towards the camera. In total, the sequence utilises 36 'pillar cuts' and 10-12 montage edits. However, in the third run, when Lola traverses the same locations, the fragmented editing that is used heavily throughout the first two runs is noticeably absent. Additionally, when Lola runs down the middle of the street after she leaves the apartment, the shot lacks the jump cuts that were utilised in the first run. Similarly, the bridge scene is shorter in length, and does not incorporate the profile shot, but maintains the frontal tracking shot.

By moving away from the use of jump cuts Lola is “framed in a way to suggest increased grace and greater control.” (Parshall, 2012 :190). The use of editing not only emphasises Lola’s movement but also serves to indicate her increasing aptitude for navigating the city; she has mastered the game space and its obstacles and through trial and error determined the best way to achieve her objectives. For *Run Lola Run*, the progression of editing establishes a narrative space that “opens up a new kind of reality – a ludic database reality, offering new montage possibilities and thus opening up the visual language of film” (Kallay, 2013 :67).

(Figure 19. Lola running over the bridge during the first run.)

Further references to gameplay can be drawn from the relationship between Lola’s movement and that of the camera. When Lola ends her call with Manni, she is almost always in a constant of motion. From the moment she leaves her apartment, Lola and the camera are intrinsically linked; when Lola is moving, the camera continues to moves with her; when she stops, the camera moves around her. This relationship is shown most effectively during the bank robbery scene in the first run. When Lola and Manni exit the store and run down the

street, the camera follows them in the third-person perspective, which alternates between long and over the shoulder shots. As they approach the end of the street, the point of view changes to the first-person as the police obstruct their escape. However, when Lola's movement is halted, the camera continues to move around her in a 360^{o} arc, drawing on the same visual choreography that was used during her decision-making sequence. Indeed, there are few instances where Lola and the camera are stationary, and these moments occur almost exclusively when other characters engage Lola in dialogue; when Lola returns to her journey through Berlin, so too does the camera.

(Figure 20. Lola and Manni are surrounded.)

The way in which Lola's actions define the movement of the camera emulates the relationship between the avatar and virtual camera within a video game, particularly that of the third-person perspective (Nitsche, 2009). Like the camera of cinema, the virtual camera serves as the players' window in to the action that occurs within a game. However, one defining contrast is that the virtual camera is often subordinate to the control or input of the player. As video game graphics developed, the virtual camera could emulate increasingly more

complex and dynamic camera movements. Players could control the rotation of the camera through a 360^{o} axis, and in doing so use it survey the game space. Nitsche (2009) suggests that this places the player more in the role of a camera operator, who can control, to a large extent, how they see and experience the events within the game. However, film audiences cannot influence the actions of a film in the same way that players can. In light of this, Tykwer instead uses camera techniques to emulate the dynamic movement of the virtual camera. By combining the use of a dynamic camera with Lola's unwavering kinetic movement, Tykwer creates a film that evokes the look and feel of game play within video games.

The profound effects of the films cinematic interpretation of gameplay has even been cited as an influence within the video game industry. Shortly after its release, a review of the game *Mirror's Edge* (DICE, 2008) acknowledged many similarities that the game shared with *Run Lola Run* (Game Informer, 2009). The game follows Faith, a strong and visually distinct female protagonist who shares many similarities with Lola. With each mission, she is charged with delivering a package to members of a resistance movement. To do so, she must navigate her way across a large cityscape, while at the same time escape from the totalitarian regime which controls it. As a free runner, Faith must constantly move to maintain her flow of movement; if she stops, she must regain it to be able to reach certain areas or overcome obstacles. Movement then is one of the games defining features. In this instance, Mirror's Edge is a video game that was inspired by a film (*Run Lola Run*), which was itself influenced by a video game (*Tomb Raider*). Ultimately, *Mirror's Edge* is evidence that film can still have a profound effect on video games. However, it also indicates that the boundaries between the two mediums continue to intersect in new and dynamic ways.

While *Run Lola Run* constructs an allusion to the concept of gameplay, *Gamer's* evocation of gameplay elements is overtly literal, since the actual act of gameplay plays a pivotal role in the film's narrative. The audience can see and experience gameplay from both the avatar's in-game perspective (Kable) and that of his player, Simon, as some scenes depict how he controls Kable through a gaming interface system. However, while *Run Lola Run* incorporates a more traditional, if unconventional, form of camera work, *Gamer* not only embraces the potential of digital cinema and intensified continuity to mediate the translation of gameplay in to film form but pushes its capabilities to hyperbolic extremes.

Indeed, *Gamer*'s release came many years in to the seventh generation of home video games (2005-2014). The seventh generation began with the release of the Xbox 360 (360, 2005) and included the PlayStation 3 (PS3, 2006) and the Nintendo Wii (Wii, 2006). It became the longest-lived console generation in history for two key reasons. To begin with, the ability to produce increasingly realistic graphics became a crucial aspect of a consoles appeal, with the generation being alternately referred to as the HD (high-definition) era. Secondly, whilst online multiplayer has existed in some form since the 1990s on console (and as early as 1987 on PC) the growth and increasing accessibility of the internet throughout the mid-2000s led to the creation of dedicated, online services such as the Xbox Live, PlayStation Network and the Nintendo Network (Wolf, 2012: 252). At the same time, developments within the film industry saw the emergence of digital filmmaking techniques. Digital no longer became defined purely within the context of post-production, such as the addition of computer-generated imagery or 'effects' but as a technical choice that informed the aesthetic and

technical form of the film. These developments "broadened the techniques available to a director, especially regarding the camera's movement within a given space" (Brown, 2015 :15). As a result, the move towards incorporating digital cinema began to challenge classical modes of filmmaking, particularly within the action genre. Bordwell (2002) refers to this aspect of digital cinema as a form of *intensified continuity,* where techniques are accelerated beyond the means of traditional continuity to create a frenetic and jarring form of action. He outlines four defining technical characteristics: 1) rapid editing 2) bipolar extremes of lens lengths 3) close framing during dialogue exchanges and 4) the use of a 'free ranging' camera. The use of rapid editing occurs almost immediately following the film's opening credits. Like *Run Lola Run*, *Gamer* utilises a heavily fractured editing style. In doing so Neveldine/Taylor "do not seek to replicate the spatial continuity of actual video games; instead they present a space that is broken up by aggressive, jumpy, and discontinuous editing…" which serves to "communicate a sense of visceral involvement that matches up to what computer combat games are able to provide" (Shaviro, 2010 :104).

The opening sequence incorporates a slow, building pace as establishing shots of citiescapes and famous landmarks are choreographed to Marilyn Manson's sedate rendition of the Eurhythmics track '*Sweet Dreams (are made of This)'*. The scene abruptly shifts to a top-down perspective as a figure, revealed to be the main protagonist Kable, moves through an alleyway and towards the skirmish (Figure 21). From the moment Kable enters the game (00:01:15) to the moment he enters the first structure (00:01:54) 28 different cuts are executed in rapid succession to depict his movement through the game area. Digital effects are used throughout the sequence, particularly to provide a visual indication of the *ping* when it occurs

in-game. Additionally, the sequence also incorporates a wide variety of framing and perspective changes, in which the camera alternates wildly between the third and first person, and incorporates different forms of pans, crane and tracking shots.

(Figure 21. Kable enters the game.)

The combination of the rapid editing, digital effects and dynamic camera work produce a jarring and, in some cases, overwhelming series of action sequences. In discussing contemporary action films, Stork (2011) draws on Bordwell's conceptualisation of intensified continuity to discuss the role that that digital cinema has played in the development of the genre. He suggests that *Gamer*, amongst other contemporary action films (*Black Hawk Down*, 2001 & *The Bourne Supremacy*, 2004) utilises a hyper-accelerated form of editing and movement that does not conform to the preservation of classic continuity. Rather, it renders the action sequence nearly unintelligible and ultimately prevents the audiences from discerning a coherent notion of narrative space. Stork concludes that *Gamer* is not so much an example of intensified continuity as it is an example of "chaos cinema" (Stork, 2011 :00:04:40). However, Stork does not take in to consideration the role that other media forms have played in the emergence of this form of cinema (Cheney, 2002). In contrast, Bordwell (2002) suggests that the conventions of intensified continuity stem from audiences

increasingly expanding media literacy, particularly from the influence of video games and the internet. He concludes that the conventions of intensified continuity are not arbitrary but serve to engage the audience in the film's action (2002 :22).

As an interactive form of media, action in video games occur in the moment; players respond to the conditions of the game environment, and consequently, actions have immediate responses. By its very nature gameplay is always 'happening' in real time. In online multiplayer games from which *Gamer* draws its inspiration, gameplay is fast-paced and immersive. Players also compete against other people, who are able to react to events and execute strategies in real time faster than a video games A.I can. Although film viewing is by no means a passive act, audiences cannot interact with the events of a film in the way player can in a video game. In this regard, the use of rapid editing and unconventional camera movement *Gamer* is not geared towards overwhelming the audience but instead attempts to draw them in to the action itself, by emulating the immediacy of gameplay. As Shaviro suggests *Gamer* "is hyperbolically actualist or presentist. The movie's action takes place, not so much over a span of time, as in a series of exact moments of hypermediated nows. Each sequence of the film is a thin sliver of pure present" (Shaviro, 2010 :112).

It is not only through hyper-accelerated and unconventional editing that *Gamer* attempts to emulate gameplay. As previously highlighted, The camera is intrinsically linked to Kable's movements. In *Gamer*, Kable must successfully move through the game-zone and reach the save point; if he does not then he cannot get revenge on Castle or save his family. During the slayer sequences the cameras movement is tied to Kable's actions; when Kable moves the

camera is either stationary or moving with him, and vice versa. However, whilst Tykwer utilises stabilising technology such as Steadicams and crane rigs to frame Lola's movement through the city, Neveldine/Taylor draw heavily on the use of the subjective camera, a perspective that has a strong connection to both film and video game. It can convey not only what a character can see, but their audio-visual sensorial experience. With *Notorious* (1946) Alfred Hitchcock popularised the subjective camera's ability to convey the physical and psychological state of his characters. Yet, the use of the subjective camera began to change with the emergence of digital cinema. Smaller compact cameras that could be easily moved, the ability to film in 360^{o} and the evolution of post-production techniques led to the subjective camera becoming able to enact more dynamic and volatile movement. As Galloway points out "the subjective camera doesn't just look at a scene. It moves actively through space. It remains perpetually unstable, it stops and starts, it pans and tilts, it lurches forward and back. It follows the rhythms of the whole body, not just that of the eyes. This is a pre-subjective, effective and not cognitive, regime of vision" (2006, :63). Consequently, the movement of the camera and its ability to react to the environment closely resembles the movement found in action orientated video games, particularly first-person shooters such as *Call of Duty: Modern Warfare 2* (Infinity Ward, 2009), but also third-person games such as *Gears of War 2* (Epic Games, 2008). Launched within a year of *Gamer's* own release, both titles gained greatly in popularity, due in large part to their online multiplayer modes. Both games heavily implement the use of subjectivity to convey a sense of realism. They utilise realistic running animations, and the camera tilts when the player character is shot. Additionally, the point of view edges of the frame blur and the camera's perspective temporarily moves in and out of focus to simulate the physical response to pain. Consequently, a similar form of visual choreography can be found in *Gamer* (Figure 22 & 23).

As Kable navigates the Slayer game space the camera moves with him and reacts to his actions. For example, when he runs across an open area, the camera moves with him, emulating his movement. Similarly, when he crouches behind barriers the camera pushes in with a close-up shot.

(Figure 22. Gamer and subjective camera movement.)

(Figure 23. Gears of War 2 and subjective camera movement in the games online mode.)

Additionally, the camera is not only subjective to Kable's actions and movements, but also to events within the environment. The game space of *Gamer* is a literal war zone, rife with enemy players, gunfire, explosions, shattering buildings and falling debris. When Kable reacts to his surroundings, the camera reacts accordingly. For example, when he is lifted off his feet by a nearby explosion, the camera distorts and flips wildly through the air with him. In these instances, Neveldine/Taylor, like Tykwer before them, utilise camera techniques and behaviours that evoke the dynamic nature of the virtual camera. Ironically, a physical representation of the 'virtual' camera can be found throughout the Slayer sequences (Figure 24). It is depicted as a small, floating ball and is the means through which Kable's player, Simon, as well as the Slayer audience, has been able to visualise the game space. During his

escape from the Slayer game zone, Kable destroys the camera, severing the last of his connection to the game zone.

(Figure 24. The 'virtual' camera in Gamer.)

Even though the physical representation of Kable's virtual camera has been destroyed, the subjective camera shot continues to be used in action sequences throughout the film and extends to scenes within the 'real world'. This is most notable during the fight scene with Castle and his mercenaries at the climax of the film. The emulation of the subjective virtual camera that is utilised throughout the film is not restricted to the game zones of Slayers and Society but permeates the cinematic space of the real world; "we never quite leave the game space" (Shaviro, 2011 :130). In these instances, Neveldine/Taylor seem to suggest that the gamic mode of movement has moved beyond the exclusive realm of video games and can be incorporated in to cinematic space.

For *Run Lola Run* and *Gamer,* movement is central to the experience of gameplay. As a result, it plays a pivotal role in the translation of gameplay in to film form. Their narratives serve as a driving force that compels the dynamic movement of their central characters. Lola must

travel through Berlin in time to save her boyfriend, and Kable is similarly compelled to navigate the chaos of his game space to survive the game and save his family. To emphasise their dynamic movement, both films utilise excessively rapid and unconventional editing styles. However, inspired by the hyper-accelerated nature of online gameplay, Neveldine/Taylor draw on advancements offered by digital cinema to push these concepts to their logical extreme, resulting in excessive and often hyperbolic forms of movement in *Gamer*. Additionally, camera movement within both films is intrinsically linked to the movement of the character, emulating, in some capacity, the behaviour of the virtual camera in video games. By mediating the use of movement in video games both *Run Lola Run* and *Gamer* offer audiences' distinct cinematic experiences which can "approximate the feel of gameplay, the navigation of chaotic, out of control space and the visceral involvement it generates" (Stork, 2013 :157).

Chapter Four: Perspective & Immersion

The primary focus of chapter three centred on how rapid editing techniques and the movement of character/camera are used to emulate the 'look' and feel of gameplay. However, this chapter focuses on the impact of the camera in further depth, to examine how the first and third-person perspectives are used in *Run Lola Run* and *Gamer.* Both film and video games employ the use of a camera (both real and virtual) to capture and frame action and, as a result, perspective serves as a unifying principle in the construction of both cinematic and game spaces. It also plays a vital role construction of narrative space where it serves "to select, frame, and interpret (…) it narrates the space to the player" (Nitsche, 2009 :77). Additionally, drawing on the work of Heath, Neuendorf (2010) suggests that perspective in film functions "as a narrative process that weaves the spectator's eye and mind into the film" (2010 :4). Despite these shared conventions, the function of the first-person and third-person perspectives, and the role they play in the construction of meaning have not always been synonymous.

The first-person perspective first emerged within video games to offer a new visual experience for gamers, but also as a means to circumvent technical limitations that affected hardware. To begin with, restrictive processing prevented the rendering of complex graphics, pushing game developers to find new methods of framing. By limiting the field of vision, less processing power would be needed to render the game world, which could be used to offer more dynamic elements of gameplay. Secondly, early examples of first-person shooters

restricted the players to a horizontal plane and used smooth and stable forms of camera placement. This simplified the range of movement within the game world, making it easier for players to navigate. Finally, it also placed audiences close to actions and events within the game space, creating a sense of immediacy (Nitsche, 2009: 102). As video game technology continued to evolve rapidly, so too did the use of the first -person perspective. Games such as *Wolfenstein 3D* and *Doom* (i.d Software, 1993) incorporated shooting as a game mechanic, laying the foundations for the emergence of the first-person shooter genre. Game developers were also able to explore increasingly dynamic forms of camera movements, such as the subjectivity of the camera (a concept that was discussed in the previous chapter) to create a sense of immediacy and realism within the gameplay experience. As a result, the primary function of the first-person perspective serves to allow players to identify with their in-game avatar, and through them experience and explore the game-world. (Galloway 2006 :40).

Initially, the first-person perspective in film was also used to create a sense of identification with characters. This can be seen in Robert Montgomery's *Lady of the Lake* (1947), where the first-person perspective endeavours to align the viewer with the experiences of the point-of-view character, Phillip Marlowe (Robert Montgomery). However, as film continued to develop throughout the 1940s and 1950s, its use began to take on new meaning. The work of director Alfred Hitchcock popularised its use in the emerging psychological thriller genre, employing the perspective primarily to disorientate audiences or to create and heighten tension. When Alicia (Ingrid Berman) is drugged in *Notorious* (1946) the camera moves haphazardly, and the lens moves in and out of focus to indicate the physiological effects she suffers from. In *Psycho* (1960) the shot is used when Lila (Vera Miles) approaches the body of Norman Bates mother.

Within these films and many others, Hitchcock engaged the use of the perspective to engender feelings of alienation rather than identification. This evocation of the first-person perspective began to become increasingly more prevalent, particularly within the slasher and exploitation horror films throughout the 1970s and 1980s. *Halloween* (1979) places the audience within the perspective of the killer as he stalks Laurie (Jamie Lee Curtis) throughout the suburban setting, culminating in a transgressive and voyeuristic gaze that serves to heighten the sense of tension further.

However, the increasingly permeable boundaries between video games and film have led to a mutual exchange of perspectives and consequentially, an exploration of the meaning derived from their use. Galloway (2006) notes that filmmakers have begun to incorporate the familiarity of the video game perspectives into film form. This invites audiences to view and interpret events in film in a similar capacity to how they experience them in video games. Galloway refers to this migration of perspectives as a form of "gamic vision" (Galloway, 2006 :62).

As previously highlighted in chapter three, Tykwer uses the third-person perspective extensively throughout *Run Lola Run* and serves to emphasise Lola's movement through the city. Indeed, the way in which the third-person perspective is applied within the film is not only intrinsically linked to the camera and its place within the cinematic space but draws influence of third-person action/adventure games by emulating the dynamic movement of the virtual camera. Grieb (2002) suggests that by translating the visual choreography of the third-person perspective in video games, *Run Lola Run* attempts to challenge the boundaries

of cinematic technique to create exciting new modes of vision (2002, :158). In light of this, the use of the third person perspective within *Run Lola Run* can be considered a form of gamic vision.

Tykwer also draws on the concept of gamic vision in another way; through the use of the first-person perspective. Previously, chapters two and three discussed how Lola is the central figure that drives the action in *Run Lola Run*. Her kinetic movement, ability to retain knowledge and overcome obstacles presents her as a dynamic figure that blurs the boundaries between film character, video game character and game player. By placing the camera within Lola's perspective, the audience begins to align themselves with Lola's experiences as she journeys across Berlin. In these instances, Tykwer utilises the perspective to enable the audience to identify with Lola, in the same capacity that the perspective primarily functions within first-person video games. While cinema cannot emulate the exact interactive experience of playing a video game, it does share a commonality with a factor that is imperative to the interactive experience; creating a sense of identification through a representational figure. In doing so film can attempt to emulate, in some capacity, the sense of involvement within the action that occurs within a video game. As Hank (2010) notes, through camera perspective "the viewer identifies with the camera and the cinematic figures, allowing the viewer to feel like the subject of the film and experiencing an illusion of self-confidence, the possibility of action and the power over what has happened" (Hank, 2010 :53). In this regard *Run Lola Run* invites audiences to draw on the interpretation of the first-person perspective that exists within video games, rather than the alienating effect it has historically inhabited within cinema. Ultimately, the use of the first-person perspective serves

to immerse the audience in the video game-like experience of Lola's journey by framing the action through her point of view.

Indeed, in *Run Lola Run*, the perspective is utilised in scenes which emulate video game-like scenarios. For example, it is primarily used when Lola encounters an obstacle which threatens to slow her down or impede her progress. These instances are most noticeable within the first run and occur at four points during her journey: when she encounters Mr Meyer's car, a group of nuns, the bank's security guard and her confrontation with the police after the attempted bank robbery. In each instance, the obstructions are framed in the centre of the camera as Lola races towards them (Figure 25). The close and restrictive nature of the frame serves to indicate that there is no alternative route for Lola to take; she must quickly and decisively react to the obstacle in front of her or else risk losing valuable time she needs to complete her mission. When she encounters the car in the first run, her unobstructed pace ensures that she passes it without delay. However, an incident at the beginning of the second run causes her to lose time; when she encounters the car again, she must jump over it. In the third and final run, she is further delayed and misses the opportunity to jump, causing her to land directly on the hood of the car instead, which causes her to miss meeting her father at the bank. In these instances, the first-person perspective not only allows audiences to identify with Lola but create a heightened sense of immediacy. In doing so, the kinetic nature of *Run Lola Run* serves to immerse the audience in the action, emulating the experience of gameplay (Grieb, 2002 :162).

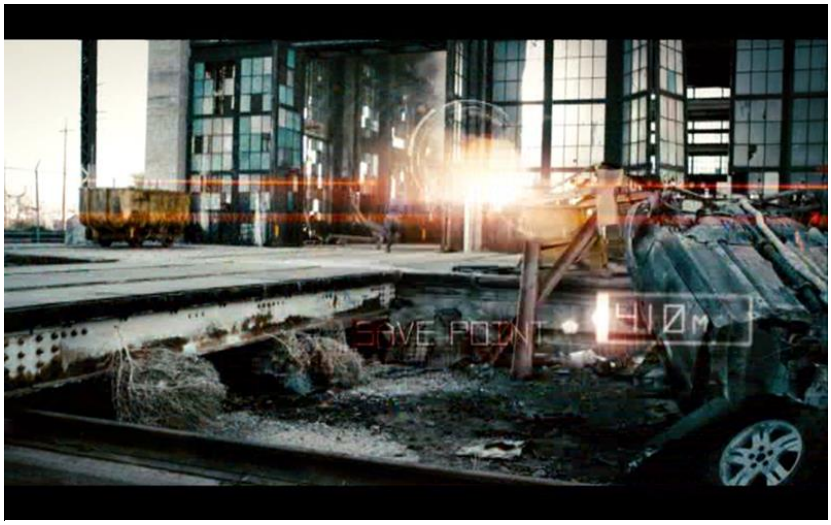
(Figure 25. The first-person perspective in Run Lola Run.)

Like *Run Lola Run*, *Gamer* also invites audiences to identify with its central character through the first-person perspective. Previously, chapter three acknowledged that game developers draw on the subjective camera shot to create a sense of realism in contemporary first and third person shooters. However, Neveldine/Taylor also draw on the use of heavily subjective camera movement to further engender a sense of identification. In doing so, it heightens the immediacy offered by the films action sequences. Like *Run Lola Run*, the shot is used primarily during the sequences that emulate gameplay and is used primarily within the Slayer scenes. As Kable attempts to navigate the chaotic game space, the camera moves haphazardly to replicate the physical act of running (Figure 26). In this respect, the subjective camera not only emulates the visual choreography of gameplay, but also cultivates a sense of identification with Kable's experiences.

(Figure 26. The first-person perspective in Gamer)

The use of the first-person perspective is not limited to the desire to create identification and immersion. In some instances, Neveldine/Taylor combine it with the aesthetic convention of the heads-up display (Figure 27). The HUD is a unique and important part of video game design; it functions as a visual interface for the player by conveying information vital to the gameplay experience. Indeed, the advent of digital cinema enabled filmmakers to pursue new, dynamic modes of vision which "made it possible to realise more fully the aesthetic vision of virtuality, in ways that were more difficult in the past" (Galloway, 2006 :26). However, the translation of the HUD from video games to film is problematic. Since film audiences cannot engage with on-screen action in the same way a player can, the combination of the first-person perspective and HUD overlay does not serve to emulate the immediacy and immersion offered by video games but breaks it. Particularly in these instances, Neveldine/Taylor's use of the first-person perspective does not engender a sense of immediacy, but rather a form of hypermediacy. In their seminal book, *Remediation: Understanding New Media*, Jay David Bolter and Richard Grusin (2002) suggest that hypermediacy occurs when the sense of immersion is interrupted, and audiences are

reminded that they are not actually experiencing the events on-screen, but that they are consuming a piece of media (Bolter & Grusin 2000 :34). In doing so, this form of hypermediacy underlines the fact that the viewer is not in control of the on-screen action, in the same capacity that a video game player is during gameplay. By highlighting the conflicting nature of interactivity between film and video games, Neveldine/Taylor offer a polarised interpretation of the first-person perspective in *Gamer*.



(Figure 27. The heads up display (HUD) in Gamer.)

Yet, the conflict that arises through the incorporation of hypermediacy imbues the film's narrative space with additional layers of meaning. The lack of immediate control that viewers are faced with parallels Kable's own situation within the film. Although it is his body which is used to fight through the game space, the real Kable has no control over his actions. Unlike Lola, he does not represent the role of the player, but of the in-game avatar; he exists only to facilitate the actions of his player. Interestingly, after he escapes from the Slayer game-area, the first-person perspective is no longer used to represent Kable. This is symbolic of Kable

taking control and becoming the player; his goal is no longer to survive the game but to save his family. By presenting a conflicting interpretation of the first-person perspective, Neveldine/Taylor highlight the issues inherent in translating the conventions of video games in to film. However, by acknowledging these issues, they also seek to offer an alternative means through which to emulate the look and feel of gameplay. Although the first-person perspective is used throughout *Gamer*, the third-person perspective is the primary mode of vision through which the film is presented. To depict the film's gameplay-esque action sequences, Neveldine/Taylor emulate the visual choreography of the perspective as it functions in video games. Indeed, chapter three previously discussed how the camera of cinema can replicate, in some capacity, the behaviour of the virtual camera in a third-person perspective.

Within video games, the third-person perspective manifests in two distinct forms. Firstly, the virtual camera is tied to the movement of the character which serves to create a sense of identification between the player and their in-game avatar as they navigate their respective game space, aligning the player with their actions and movements. (Nitsche, 2009 :96). This is conveyed through the close proximity that the camera has to the player character and is often referred to as an over the shoulder perspective. The over the shoulder angle also provides the player with more visual range than the first-person, enabling them to see more of the game environment on a 360^{o} axis. The second function is often referred to as the following camera and, is similarly defined through its connection to the player character. In contrast to the over the shoulder position, it is positioned further away from the player, providing a measure of distance. Although technical limitations often restricted the

functionality of the following camera in early 3D video games, contemporary game design enables more control of the camera. Additionally, the following camera also enables the camera to be positioned at different angles relative to the in-game avatar. As a result, it offers the player an even greater range of vision, which allows them to adapt their actions to the course of play (Laurier & Reeves, 2014: 3).

Both the visual choreography and function of the video game ideation third-person perspective are emulated within the action sequences of *Gamer*. For example, when the over the shoulder position is used during the Slayer sequences, the camera hovers over Kable's right shoulder, aligning the audience with his movement through the game area. Like with the first-person perspective, this serves to engender a sense of identification with Kable and thus a sense of immersion within the film's action. Additionally, the third-person perspective also emulates the following camera (Figure 28). Although the camera is still tied to Kable's movement, it is positioned at a further distance, and often occupies different angles. In a similar capacity to its video game counterpart, it offers the audience a wider visual range through which they can view the hyperbolic events happening within the scene. However, in some instances the third-person perspective also incorporates the use of a HUD overlay, leading to similar issues that are found within its use in the first-person. This hypermediacy interrupts the immersive connection between the audience and the events within the scene.

(Figure 28. Over the shoulder camera [left] vs. following camera [right])

The way in which the first and third-person perspectives have been presented within *Gamer* has been conflicted, oscillating between creating a sense of immersion and breaking it through hypermediacy. However, where these iterations are polarised, Neveldine/Taylor offer another interpretation of the third-person perspective to convey the visceral experience of gameplay through a cinematic lens. This takes the form of an embodied camera, instances where the camera's movements and perceptions are embodied in the scene along with the subjects of the shot; that the camera exists within the diegesis of *Gamer* while not being directly attached to Kable. This contrasts the way in which immersion has previously created through the third-person perspective; it is not created through a connection with the character but with a connection to the scene itself. Shaviro (2010) suggests that this is because the embodied camera "is highly mobile, and always in the thick of the action" (2010 :103). Through the embodied camera, Neveldine/Taylor highlight some of the problems that can arise when adapting video game concepts to film. By breaking with the conventional use of perspective in video games, they reject certain elements present within video games and provide cinematic equivalents for them. In doing so, they demonstrate that cinema can

emulate the look and feel of video games, not by copying elements directly from video games but by evolving and adapting them to the cinematic space.

In his study of action films that followed the rise of digital cinema, Thompson (2008) suggests that gamic vision does not indicate an exciting step towards positive media convergence, but rather represents a growing fascination with incoherent, hyperactive and meaningless violent action (2008 :560). However, *Run Lola Run* and *Gamer* demonstrate that while films cannot engage in the act of gameplay, they can emulate a similar visual experience. In doing so, they acknowledge that gamic vision can not only be meaningful but offer new cinematic experiences. Indeed, since the early 2000s films that incorporate forms of gamic vision have become increasingly more apparent. *Hardcore Henry* and more recently *Kill Switch* (2017), are primarily shot within the first-person perspective and draw specifically on the visual choreography of first-person video games. Additionally, *Children of Men* (2006) combines the over the shoulder view with an extended long take, emulating the point of view and movement of the third person perspective of contemporary action-orientated video games. The release of these films ensures that video game perspectives have, and continue to have, an impact on how filmmakers approach the filmmaking process (Giordano, Girina & Fassone, 2015 :6).

Conclusion

The main purpose of this research has been to explore Galloway's concept of gamic cinema to explore how video game innovations have migrated in to the form and content of films. To do this, it sought to examine how these innovations may be made apparent by examining the construction of narrative space. In particular, it focused on how space, movement and perspective have been used within *Run Lola Run* and *Gamer.* My research has found that both films utilise a wide array of techniques to translate three key video game innovations in to cinematic form.

The space within *Run Lola Run* and *Gamer* is constructed to emulate the look and feel of a game space. Yet action within video games is primarily continuous and requires no form of editing to enact the gameplay experience. In contrast, montage and editing are used within film to convey actions and events. However, both *Run Lola Run* and *Gamer* subvert the construction of space in video games by employing a frenetic and jarring editing and shooting style to create a cinematic interpretation of game space. Additionally, these techniques serve to suffuse meaning within the narrative space of both texts. By moving through these spaces, both Lola and Kable become more like video game characters than cinematic figures. While *Run Lola Run's* hyperkinetic editing presents her as a dynamic and capable player, *Gamer's* hyperbolic and visually erratic editing style reinforces the lack of control that its characters have within their own game spaces. Ultimately by incorporating these concepts in the construction of narrative space, both films are able to explore a multitude of themes such as freedom, determinism, loss of control and autonomy.

Additionally, both films draw on the relationship between character movement and camera movement to emulate the innovative nature of gameplay. Movement plays an essential role in the execution and experience of gameplay. While viewers are not able to control the characters in the same way as a player can in a video game, the hyperbolic trajectories that Lola and Kable chart throughout their respective game spaces serve to draw the audiences in to the immediacy of their actions. Although the heavy use of a frenetic style and pace of editing is at odds with the continuous nature of gameplay, the movement of the characters serves to thread together the continuous navigation of their respective environments. Correspondingly, Tykwer and Neveldine/Taylor create a synthesis of the cinematic and virtual camera by utilising a wide array of camera techniques such as rotating on a 360^{o} axis, crane shots, tilts, and pans to emulate the behaviour of in-game camera movement. In doing so, they replicate the visual experience of gameplay.

Lastly, both films draw on the function of the first and third-person perspectives in video games to immerse audiences in their respective action. However, how they do so are informed by both technical and stylistic choices. Tykwer draws on the influence of the first-person perspective to engender a connection between the audience and Lola as she traverses Berlin. Yet the use of a more traditional cinematic camera in *Run Lola Run* presents audiences with a smooth and stable point of view. In contrast, *Gamer* embraces the possibilities offered by digital filmmaking. Neveldine/Taylor combine the first-person perspective with excessive subjective camera movement to immerse the audience, if only briefly, in to the films visually and aurally frenetic action sequences.

Within *Run Lola Run* movement of the character and camera is so embedded in the film's structure that it informs its use of the third person perspective. Lola's movement and her relationship with the camera emulate the visual choreography of the virtual camera that can be found within 3D action adventure titles, from which it draws its inspiration. Ultimately the overlap between the emulation of the virtual and cinematic ensures that *Run Lola Run* engenders a gamic form of vision, through which the audience views its action.

Similarly, within *Gamer*, Neveldine/Taylor draw on the visual choreography of the over the shoulder and following camera found within online multiplayer games that utilise the third person perspective. Although the use of a HUD overlay serves as clear aesthetic reference to video games, it also breaks any form of immediacy by reinforcing the lack of control that audiences have over the events of the film. Despite these issues, or even because of them, Neveldine/Taylor offer the embodied camera as the most effective cinematic technique that can capture the sensorial experience of gameplay.

Ultimately, my research has led me to conclude that video games have, and continue to have, a meaningful and lasting impact on the filmmaking process. By seeking to translate conventions of video game design in to a cinematic form, filmmakers are able to explore the increasingly permeable boundaries between video games and film. As a result, gamic cinema is not merely the remediation of stylistic or aesthetic conventions, but a conscious attempt to draw specifically on the innovative nature of video games. In doing so filmmakers can

create a synthesis of filmic and gamic form, which challenges, subverts and expands the boundaries and possibilities of cinema itself.

Additionally, one of the primary goals of this study has been to explore how narrative space is constructed, to elucidate which video game innovations are translated, and what cinematic techniques are used to emulate them. As audio visual media forms, video games and films share a similar capacity to construct spaces through which audiences and players are invited to interpret and experience events in their respective landscapes. My research has found that as an interdisciplinary concept of study, narrative space can be an effective means through which to examine the conventions of gamic cinema.

Throughout this research, the construction of space, movement and perspective served as primary areas of comparison through which to analyse both texts and became the means through which the study was ultimately structured. Yet this method of research did elucidate some issues. One the one hand, it provided the study with relevant points of comparison between the selected texts and an opportunity to analyse key aspects of commonality. However, on the other hand, Heath noted that a variety of filmmaking techniques, such as temporality, framing, shot/reverse shot montage, alternating between foreground/background, depth of gaze and point of view were also integral to the construction of narrative space. Although some of these techniques have been briefly discussed in the context of space, movement and perspective, the decision to focus on these three areas of study ultimately placed limitations on the depth and scale of this research. As

a result, a more dedicated and in-depth analysis of their relevance to the construction of narrative space would be an exceedingly relevant and interesting area of study in the future.

Another limitation of this research is the small selection of films that were chosen to be analysed. *Run Lola Run* and Gamer were chosen in large part to offer a historic context to elucidate how gamic cinema has evolved. However, there are many films that could be considered forms of gamic cinema that were released before *Run Lola Run*, that emerged during the intervening years between the two, and after the release of *Gamer*. These films occupy a wide range of genres, attempt to translate different innovations and explore alternative means through which to translate them. By expanding this selection to incorporate a wider variety of films, future research could offer a more in-depth and thorough examination of gamic cinema.

My research has also concluded that the mutual development of technology within the film and video games industries greatly informs and influences the filmmaking process of gamic cinema. *Run Lola Run* and *Gamer* are products of their time, in the sense that the specific innovations they emulate, and the way in which they emulate them can be traced to the timeframe of their release. As Margit Grieb (2002) suggests, *Run Lola Run* shares many similarities with the third person action/adventure genre which became increasingly popular due to games such as *Tomb Raider* and *Metal Gear Solid*. In contrast, *Gamer* draws extensively on the possibilities offered by digital cinema to emulate the first-person shooter genre, with a particular focus on the online multiplayer experience. I suggest that as the film and video game industries continue to push their technical boundaries, filmmakers will continue to

explore the multifaceted ways through which to incorporate conventions of video games in to film form. This may lead to new innovative forms of gamic cinema in the future. Although they have long been criticised for loosely emulating the aesthetics of their source material, the last two years have seen renewed interest in films based on video games, with many new and even old video game titles making their way to the cinema screen. A new series of adaptations may indeed begin to explore the innovative qualities offered by gamic cinema. New film projects have also begun to emerge which take on new interpretations of gamic conventions. For example, *Ready Player One* (2018) recently released in cinemas to great fanfare. Based on the book by Ernest Cline, the film explores the conventions and possibilities offered by living game spaces and virtual reality. The role that evolving technology plays in the developing relationship between film and video games could be an interesting line of discourse through which we may explore the influence that video games have on film in the future.

Finally, I hope that this thesis contributes, in some capacity, to the vibrant ongoing academic discussion concerning the ever-evolving relationship between film and video games. The subject has, within the last few years experienced a substantial re-emergence, which ensures that it remains an exciting and relevant area of research.

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