Should I Skip This?: Cutscenes, Agency and Innovation

Ben Browning

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By: Ben Browning

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Signed by the final examining committee:

Chair

Darren Wershler External Examiner

Peter Rist Examiner

Marc Steinberg Supervisor

Approved by <u>Haidee Wasson</u> Graduate Program Director

> Catherine Wild Dean of the Faculty of Fine Arts

Date

ABSTRACT

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Ben Browning

The cutscene is a frequently overlooked and understudied device in video game scholarship, despite its prominence in a vast number of games. Most gaming literature and criticism concludes that cutscenes are predetermined narrative devices and nothing more. Interrogating this general critical dismissal of the cutscene, this thesis argues that it is a significant device that can be used to re-examine a number of important topics and debates in video game studies. Through an analysis of cutscenes deriving from the *Metal Gear Solid* (Konami, 1998) and *Resident Evil* (Capcom, 1996) franchises, I demonstrate the cutscene's importance within (1) studies of video game agency and (2) video game promotion.

This thesis has two principal aims. The first is to argue that cutscenes complicate the player-centric models of agency that currently dominate the field. A close analysis of cutscenes from varying periods of its history encourages us to develop a more expansive method for understanding how agency operates in games, one that gives additional attention to the oscillation between the player and system. In this way, we move beyond the notion that cutscenes are simply predetermined and consider the precise means through which they are executed. This leads into the second aim of this thesis, which is to demonstrate how cutscenes implement "technoattentive aesthetics", which is to say, aesthetic strategies that allow hardware manufacturers and software publishers to standardize innovation and propagate the notion that newer video game technologies (or consoles) are inherently superior to their predecessors. I

argue that by supporting such ideas, cutscenes are key elements of the economy of perpetual innovation that the video game industry relies on.

Dedicated to

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Mom & Dad

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Abbreviations

FMV: Full-Motion Video

NPC: Non-Player Character

PSAS: Prescripted Action Sequence

QTE: Quick Timer Event

RTIG: Real-Time In-Game

Introduction

Of all existing video game devices, none other generates as much debate or contention as the cutscene. Cutscenes are segments predetermined through staging, character performance, and camera movement. They are commonly known as "cinematics," a term that points to the device's links with film. For certain critics and players, cutscenes provide an experience in direct opposition to gameplay. Gameplay provides players with affordances to navigate and interact with the game world. It is the dominant way that players engage with a game. Gábor Zoltán Kiss explains that within gameplay "the game responds to the player's input, while she has to adapt to the game's response" (418). In *Super Mario Bros.* (Nintendo, 1985), for instance, gameplay consists of players, with the designated controller in hand, tapping the A-button to jump and using the directional buttons to navigate Mario on the ground and mid-air.

Whenever the game triggers a cutscene showing Mario walking into one of Bowser's castles, gameplay commands are temporarily on hold. The player watches the brief sequence before they continue making decisions through Mario. Games utilizing more sophisticated 3D graphics may include cutscenes incorporating different camera angles, their own soundtracks, and character dialogue. It is the act of *watching* rather than *playing* that many critics and scholars are hostile towards. For some, including game developer Ken Levine and scholar Markku Eskelinen, it is grounds for altogether ignoring the cutscene (Parijat; Klevjer 191). Their similar positions reflect an imperative towards a player-centric and media specific model of game design that discourages the consideration of cutscenes.

The primary cutscene detractors under consideration fall into two general categories: gaming scholars and gaming critics (or reviewers). Their observations are often similar but vary in terms of language, context and intended audience. Indeed, while they often come to comparable conclusions, gaming scholarship and criticism have different functions. While

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critics evaluate individual games to inform players if they are worth playing, scholars seek to understand, among other things, how video games function and how players perceive and process gaming experiences. Nonetheless, both groups ultimately consist of players who share a responsibility in propagating many of the ideas and attitudes held by members of the gaming community. Although they do not necessarily share the same views on every issue, the cutscene is an instance where the opinions of critics and scholars align. They rarely posit that cutscenes are inherently negative, but their arguments often contain implicit anti-cutscene rhetoric. Most often, cutscenes are tolerated as long as they adhere to certain guidelines.

Length is a central concern in the critical evaluation of cutscenes. For many, the ideal cutscene is short and provides information for subsequent gameplay segments (Jenkins 181; Wolf 312). Otherwise, there is too much time during which the player has no control. In other words, the cutscene opposes gameplay, and its primary function is to inform the player and support gameplay interests. Since reducing player agency is viewed as an inherently negative quality, games should limit cutscenes to an absolute minimum. This is echoed in *1UP.com*'s review of *Metal Gear Solid 4* (Konami, 2008), which explains "[t]he *MGS4* conundrum is this: The further you play into the game, the less you actually play. Surrendering so much control to make way for movie sequences is galling" (Parish). While motivated by different concerns, these perspectives share similar player-centric conclusions: games featuring too many cutscenes are less good for too frequently limiting or temporarily removing the player's capacity to make decisions.

In other words, cutscenes are not technically part of the gameplay experience. The device is superfluous to what a game *should* consist of. Indeed, according to Rune Klevjer's *In Defense of Cutscenes*, some scholars deem that games incorporating cutscenes "can be nothing

but a bastard discourse, an impure commercial practice that may well be appreciated by mainstream consumers, but cannot be taken seriously by computer game studies" (193). The criticism would suggest that designers must generate new methods of delivering information without interrupting the continuous flow of gameplay and the player agency it requires. Moreover, with occasional exceptions there is a general opposition towards cutscenes clearly reflecting an interest in medium specific video game designs. By lacking or significantly reducing player agency, the cutscene does not fit within such a standard.

Due to this general opposition to the device, there is a notable lack of scholarship specifically devoted to cutscenes. Since cutscenes are apparently more similar to film segments, video game writers lack the motivation to closely analyze the device and better understand how it functions within games. Klevjer posits that "other modes of discourse [such as the cutscene] in a computer game are accidental to the gaming experience and hence less interesting to computer game theorists" (192). Evaluative criticism aside, the cutscene and its expansive history deserves attention beyond its narrative functions. Reducing a video game to its core traits – including playability and user action – is interesting, but the process also diminishes the status of certain components, suggesting that they are not worthy topics within video games studies.

Cutscenes are present in countless video games and are not simply attributable to poor game design. Even with the purveying negativity towards cutscenes, games like *Metal Gear Solid 4*, which feature hours of cutscenes, continue to garner praise from players and even critics, despite conflicting with the standard criterion frequently used to judge the device, which is to encourage as much interactive access as possible. Moreover, games containing an "unacceptable" amount of lengthy cutscenes are nonetheless enjoyed by players and generate profit for gaming studios. This thesis will move beyond an interest in media specificity to analyze game devices and tools that are present, rather than work with what *should* be in a game. Instead of strictly considering what the cutscene *does not* do, I will discuss what it actually provides.

By examining cutscenes and related predetermined devices, we will gain new perspectives on the superficially understood concept of agency in video games. Firstly, I aim to discuss how the general negative attitude towards cutscenes reflects a deep-seated bias favouring one style of agency over others. It translates into a value judgement that many critics apply to all the games they review. Functionally, it is the same as criticizing the films of Charlie Chaplin for lacking extensive camera movement. In other words, diverging from a favoured style of agency should not automatically reduce a game's worth. We cannot use this style as the exclusive criteria for evaluating games with cutscenes. Game criticism as well as academic work should aim to develop different criteria when evaluating different aspects of gameplay, including cutscenes themselves.

Secondly, I will demonstrate how cutscenes highlight the overall complexity of video game agency, which involves not only players, but the game systems they engage with. Although the cutscene is deemed uninteresting for taking all control away from the player, this thesis will prove otherwise by discussing the device with an emphasis on system agency. As explained by D. Fox Harrell and Jichen Zhu, "[t]he term 'system agency' provides shorthand to describe human interpretation of properties of the system behavior and capacity, specified by the story author and authoring system designer" (48). Within the process of gameplay, agency constantly fluctuates between the player and system. Moreover, we identify certain gaming components as deriving from the system, including those that make up cutscenes. What is most significant is how games structure these components, including how they impact presentation and what the player can or cannot do. We must ask questions such as: How and through what means does the system structure cutscenes? How do these means relate to gameplay, and how do they differ in terms of employing agency? In this way, we can compare gameplay and cutscene without the latter's lack of interactive access acting as a barrier. Likewise, we will consider cutscenes featuring brief moments of unique interactive access to better understand how the system structures player agency. Rather than look at these moments as featuring "limited" gameplay, we will more objectively analyze how they structure player agency and how their requirements and responses differ from those found in the dominant gameplay.

Finally, this relationship and how it functions within cutscenes is equally relevant when considering how studios promote innovation in video games. Studios exploit a number of devices and formal qualities that they contextualize as innovative. Borrowing a term from Sonny Sidhu, these aesthetic qualities are "technoattentive" (Sidhu 33). Technoattentive aesthetics address and emphasize the technology involved in a sequence's or device's occurrence. When such instances occur, players are meant to appreciate a console's technical proficiency. Not only is the cutscene an important participant in propagating technoattentive aesthetics, the device's consistent presence in video games also allows us to analyze how they change over time.

One of the most important technoattentive qualities, which I will discuss in chapter two, is photorealistic graphics. The present tendency towards consistent photorealistic graphics is a widespread aesthetic quality that the gaming community takes for granted, yet it is an example of how the gaming industry standardizes innovation. More than this, the photorealism trend fits within an even broader aesthetic style that many games seek to achieve, one that appears both "continuous and simultaneous."

This thesis specifically addresses cutscenes found in 3D AAA (high-budget) video games, played on home consoles, and available to Western players and critics roughly between the years 1995 and 2010. The scope of this thesis necessitates such historical and sociocultural constraints. Moreover, although an extensive history of cutscenes may include analyses of 2D and arcade video games, I am more interested in a select period that begins with the introduction of 3D graphics produced on home consoles. Additionally, my present focus on Western video game markets is in response to the anti-cutscene rhetoric predominantly found in Western video game criticism and scholarship. Hopefully, future gaming scholars will seek to fill such gaps in cutscene-related research.

Along with occasional supplementary examples, in this thesis I will predominantly use games from two popular franchises as the subjects of analysis: *Metal Gear Solid* (Konami, 1998), and *Resident Evil* (Capcom, 1996). Both franchises consist of entries released during the past twenty years, thereby providing us with a convenient historical trajectory in the given cultural context to better understand the cutscene's formal development over time. They are, additionally, games that are widely known for their extensive use of cutscenes, making them particularly useful objects of analysis.

Indeed, the *Metal Gear Solid* and *Resident Evil* franchises actually challenge the logic of anti-cutscene rhetoric. Despite containing large amounts of cutscenes, both franchises share continued critical and financial success worldwide. The latter franchise's fourth entry goes so far as actually containing the longest cutscenes in video game history. Additionally, both franchises utilize similar but ultimately different technoattentive aesthetic strategies.

Experimentation is necessary in order to develop the most effective technoattentive game devices. Some are more warmly received than others, and this directly relates to how they employ and necessitate agency.

It is also important to note that both franchises originate from Japanese developers and publishers. Indeed, it is worth noting the varying cultural norms that inevitably impact video game design. However, an in-depth consideration of how cutscenes differ depending on cultural context is outside the scope of this thesis. It suffices to say that Japanese video games contain a greater propensity of cutscenes and that, despite this, their games are frequently praised by critics and players outside of Japan. To be clear, I do not intend to account for every type of cutscene and develop an exhaustive history of the device. I am engaging with the *Metal Gear Solid* and *Resident Evil* franchises due to their longstanding worldwide popularity with players and critics, as well as their frequent employment of often very lengthy cutscenes. In this way, I am considering a small subsection of cutscenes deriving from two popular franchises in order to better understand how agency operates in video games, and how video game producers exploit the device's technoattentive aesthetic qualities.

Above all, this thesis aims to emphasize the cutscene's relevance in video game studies, while also considering why it receives so little attention, and also using it as an axis by which to analyze important topics such as agency and the intersection of technological change and gameplay. Focussing on agency and perpetual innovation, I will attempt to answer the following questions: Why are cutscenes, and by extension, non or semi-interactive sequences, so undervalued in video game studies and criticism? What does this perception say about how game studies, game criticism and gamers themselves value agency? How can we expand video game

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agency theory to accommodate the complexity of the cutscene as a device? How do video games structure agency within technoattentive devices like the cutscene?

Literature Review

As previously noted, there are few scholars who outright oppose the inclusion of cutscenes in games, yet they are frequently negative or dismissive. Unless they are dealing with a particularly poorly executed cutscene, the dominant scholarly attitude towards the device is one of indifference. However in-depth a theory of video games may be, the cutscene is often treated as inconsequential and thus unnecessary. Upon first glance, it appears that we have taken cutscene analysis as far as we can. By its established definition, the cutscene does not provide players with agency, which is one of the main standards by which scholars treat the video game as a medium. In this framework, then, the cutscene is uninteresting to most game scholars as an object of analysis. The treatment of the cutscene in this thesis will hinge around the question of agency, though it is not my intention to decry the lack of agency of the cutscene, but rather point to the *degree* of agency in videogame cutscenes, hopefully shifting the frame of analysis somewhat. Given that this thesis will consider agency in the context of cutscenes, I believe that my analysis is equally pertinent for more general polemics in gaming scholarship.

Games in which the player's agency is frequently reduced are regularly dismissed by scholars and critics. As explained by Harrell and Zhu, "the lack of agency, as freewill in particular, has been associated with the computational simplicity of the system or deficiency of the design" (47). Moreover, anti-cutscene (or player-centric) rhetoric relates to this negative attitude towards the system's agency and the positive emphasis on player agency. As Geoff King and Tanya Krzywinska point out however, "[a]n oscillation between control/loss-of-control

is characteristic of the experience of many games, at various levels" (90). Despite the clear importance of the system to gameplay in general, what the system provides is often looked upon with suspicion and as a negative connotation.

Mark Wolf explains that "reducing the frequency of choices and number of options per choice can also frustrate players and make a game's interactive potential seem inadequate. Games with an overreliance on cut-scenes or video clips may be seen as relatively uninteractive" (53). Although we can attribute this critique to the number and frequency of cutscenes found in a game, it nonetheless speaks volumes about the state of the device in video game scholarship and criticism. In particular, scholars identify the cutscene's negative potential, yet they rarely consider factors beyond this. Cutscenes raise questions around agency, and not simply about the lack of agency.

Likewise, Trevor Elkington argues that the cutscene's lack of interactive access ultimately opposes the main purpose of video games (219-20). As Henry Jenkins also explains, "Zimmerman and others warn that extended cinematics, often the favored means of adding narrative and character to games, cuts the player off from the action and thus sacrifices those elements of interactivity that makes games games" (180). Going beyond simply identifying interactivity as an important aspect of video games, many scholars oppose the components that do not outright involve it. Outside its narrative and contextual benefits, the cutscene allegedly provides players with very little.

Since video game research regularly celebrates the medium as one inherently requiring player interaction, the resulting apathetic attitude towards the cutscene is not surprising. By closely considering how agency operates in video games through the cutscene however, we open up new, more precise methods of analysis. Agency comes in a variety of forms necessitating distinct responses from the player, yet most scholars and critics value player access in terms of quantity over quality. From this perspective, non or semi-interactive sequences are automatically treated as less important than those that give players more choices.

In this thesis, I opt to find a more balanced (and, in my view, more appropriate) way to understand agency that better accommodates devices like the cutscene. Scholarship from a variety of disciplines, including anthropology, linguistics, and social theory, will enrich my overall analysis of video game agency in chapter one. Such additional perspectives consider how humans identify and assert agency in the real world through previous experience and through physical movement. Although not all agency theory is equally useful, many concepts are transferable to video game studies and allow us to better understand how cutscenes complicate the player's sense of agency.

Interactivity in video games *always* involves both the player and the machine on which they play a game. According to László Tarnay, "the player's action is integrated into a series of reactions either by other players (multi-player games) or by the machine" (400). In order to identify these reactions, I will deploy the terms "player agency" and "system agency," as proposed by Alexander Galloway (5). This allows us to develop more precise observations when analyzing video games and the works of gaming scholars. While interactivity is the overall process, player and system agency are the components that make it possible.

Although we commonly attribute agency exclusively to humans, the video game system asserts an agency of its own. It responds to and often encourages the player's input by implementing limitations and affordances (Juul 58). As Galloway explains, "both the machine and the operator work together in a cybernetic relationship to effect the various actions of the video game in its entirety" (5). Understanding this relationship allows us to analyze the cutscene with greater precision. Despite this, Galloway's own brief consideration of the cutscene lacks nuance. He posits that cutscenes fetishize the machine, but he does not consider exactly *how* they do so, such as through graphics or virtual camera movement (*ibid*). That is, he never identifies how cutscenes are represented on the screen. This calls attention to the relationship between representation and ludic involvement (gameplay). Although players engage in ludic concerns like locating items or obtaining points of some kind, these concerns are represented onscreen in particular ways that help shape their overall experience.

Cutscenes participate in generating the fictional world in which the game occurs. Whether they develop a predetermined narrative, or further contextualize gameplay, cutscenes are representational. Although an increasing number of scholars acknowledge the importance of both representation and gameplay mechanics (the ways that players can interact with a video game), the former is more frequently overlooked in favour of the latter. Frans Mayra categorizes gameplay as the core of a game and representational qualities as a shell (317). Moreover, cutscenes, along with more general representational strategies, are purely superficial. On the other hand, Jesper Juul more carefully writes that cutscenes "disconnect play time from fictional time" (147). Juul's research is particularly valuable for demonstrating the interdependence between gameplay and fiction. At the same time, much more can be said about cutscenes, including the role of the system in how they operate. Many scholars acknowledge or at least suggest that gameplay and representation are interdependent, though some go further than others. Focusing specifically on cutscenes, Klevjer identifies the role of representation in shaping the gameplay experience.

Klevjer is the most significant contributor to research on the cutscene. Not only does his *In Defense of Cutscenes* analyze and ultimately reject the general opposition towards the cutscene, it also foregrounds the device's overall importance within a video game. His research is the first to closely consider cutscenes, showcasing its legitimacy as a research object, as well as its overall importance to the field of game studies. In particular, Klevjer posits that "[t]he cutscene casts its meanings forward, strengthening the diegetic, rhetorical dimension of the event to come" thereby providing "a particularity to [the player's avatar], and to [their] world" (200). Although cutscenes appear to have little impact on gameplay, they actually provide players with information that potentially enriches the subsequent gameplay segment.

As an example, we might turn to a cutscene from *Resident Evil* showing the protagonist uncovering the near lifeless body of a fellow police officer. He explains that he was poisoned by a giant snake in the attached room and requires a serum for treatment. This sets up a new gameplay task, and also provides the player with background information that prepares them for the eventual fight with the giant snake. More than this, cutscenes give players a brief amount of time to relax and prepare for upcoming events, in this case being a difficult confrontation (Kirkpatrick 75). Although Klevjer's claims are correct, we can take them further by analyzing how the system actually executes a cutscene through graphics, mise-en-scene, and sound. Additionally, more contemporary cutscenes occasionally provide this information along with limited interactive access. Rather than exclusively function as a precedent for gameplay, many cutscenes now include gameplay. In this case, as previously suggested, a more expansive understanding of system agency will allow us to accommodate such sequences within video game agency studies.

More importantly, Klevjer's text addresses an even broader issue involving the place of prescripted and narrative devices in video game studies. Rather than take sides with either ludologists or narratologists, Klevjer identifies the unity between their perspectives. The ludology vs. narratology debate, now no longer preoccupying game scholars, but in full force at the time Klevjer's text was published in 2001, is far too large a topic to presently discuss in full. It suffices to say that ludologists focus on the process of objective-based gameplay without considering the fictional world and story that they occur within. Narratology, on the other hand, more closely analyzes the fictional and representational qualities that ludology overlooks. Klevjer discusses the importance of both groups, explaining that "[t]he game event has a double function: it is both configurative and representational, operating on the material level as well as on the semantic level, referring to the machine (the toy) as well as to the fictional world" (*ibid*). The cutscene strengthens gameplay's double function by further contextualizing the player's actions in a fictional world. This is one of the ways that representation (and by extension, narrative) helps shape gameplay. We cannot discuss one without the other.

In their evaluation of Johan Huizinga's commonly cited theory of play known as the *magic circle*, Dominic Arsenault and Bernard Perron develop the *magic cycle*, which is a more useful concept for video game studies. Their theory emphasizes gameplay as a continual temporal process, categorizing its components into three interrelated spirals that make up the overall cycle: the heuristic spiral of gameplay, the heuristic spiral of narrative, and the hermeneutic spiral (Arsenault 116). Significantly, the latter two spirals exist *within* the heuristic spiral of gameplay. The authors treat narrative as a component of gameplay, rather than something that opposes it. As their theory reflects, narrative and representation are not necessarily a game's defining qualities, but their presence is still significant (*ibid*).

Arsenault and Perron's theory is useful for moving past straightforward binaries. In fact, their research reflects the growing tendency in video game studies to analyze how representation and narrative structure and complement gameplay concerns. However, with a better

understanding of agency, we can more effectively apply their theory and consider exactly how representation impacts gameplay, and vice versa. This equally applies to the cutscene, which more frequently includes unique gameplay opportunities. Just as in more conventional gameplay, a cutscene's representation and gameplay requirements inevitably impact one another. This is one of the many contexts in which we can learn a great deal about the cutscene. Gameplay and cutscene do not oppose one another and can actually work together to deliver enjoyable video game sequences.

Indeed, in contemporary game studies we frequently come across the perspective that the relationship between representation and gameplay is more important than previously thought. Michael Nitsche categorizes video games into five separate planes, but ultimately concludes that "[f]unctionality and presentation are the two forces that constantly interlink the different planes to bring game spaces to life" (17). According to Nitsche, neither gameplay nor presentation work without the other. In fact, Nitsche's central argument is "that game spaces evoke narratives because the player is making sense of them in order to engage with them" (3). Representation and gameplay requirements are inseparable and both contribute to the player's interpretation of a video game experience. The author expands the notion of narrative beyond predetermined storylines, articulating its importance in gameplay devices, including how they are presented and how players understand them.

King and Krzywinska similarly accept the interdependent relationship between gameplay and representation. Gameplay remains the more important component, yet it nonetheless relies on representation for a number of factors. Rather than exclusively consider this relationship in the context of the player's perception like Arsenault and Perron, King and Krzywinska look more closely at how video games are designed. Without a background in game design, many of the authors' observations are not immediately recognizable to players. For instance, they address how gameplay requirements and representation impact one another through a brief analysis of *Tomb Raider* (Eidos, 1996). As the game involves platforming elements, the player must carefully control the protagonist to jump across large gaps in the terrain. The exact distance of such gaps must take the protagonist's maximum jumping distance into account (King 89). Moreover, a video game's fictional world is not strictly representational and is designed to fit particular gameplay needs.

As previously noted, the cutscene is equally relevant when analyzed from marketing and promotional contexts. Video game studios regularly rely on technological achievements to not only produce a wider variety of games, but to better promote recently released or soon-to-be available games. This ultimately leads to the premeditated discontinuation and planned obsolescence of games and the technologies they rely on. James Newman discusses this process and its implications in *Best Before: Videogames, Supersession and Obsolescence*. One of Newman's primary concerns is the impact of this process on video game preservation. Once a console is superseded by its successor, it becomes increasingly difficult to find and play games on it (Newman 6). Even if studios rerelease older games on more recent consoles, their original incarnations are rendered useless. In this way, Newman addresses how an emphasis on implementing new video game technology actually impacts the future of video game studies. This serves as an additional reason for attempting to understand how and why video game studios fuel this process.

Technology-based industries like video games require frequent and consistent innovations to maximize commercial gain, and are otherwise known as perpetual innovation economies. By promoting superior technology as a reason to make a purchase, video game studios now compete in an endless cycle of hardware updates (Newman 54). The current console contenders (as of late 2015) include Sony's Playstation 4, Microsoft's Xbox One, and Nintendo's Wii U. Nintendo recently announced the development of a new console, and its competitors will likely do the same in the years to come. Suddenly, technology does not exclusively compete with products from rival companies, it must compete with its predecessors from the same company to prove that it is indeed superior. Just as soon as new technology hits the market, something else comes along to take its place. In order to gain success, new technologies must capitalize on the "limitations" of their predecessors. Since these limitations are necessary for future endeavours, studios must carefully balance innovation with more familiar components (Newman 52). One need simply compare the controllers of the Playstation 3 and Playstation 4. Both consoles utilize nearly identical controllers, yet the Playstation 4 controller includes a touch-sensitive pad and a "share" button (used to share gameplay videos with friends via the internet).

Arguably more important however is how video game producers handle perpetual innovation within individual games. Stephen Kline explains that the gaming industry is a "razor and razor-blade" business, in which the consumer must purchase both a console and the games that it plays (112). Since the latter generates the most profit (just like razor-blades), developers must emphasize technical innovation in the games they produce. In fact, it is only through individual games that a console demonstrates whether it is truly innovative. For instance, the Playstation 4's touch-sensitive controller is only apparent when games require its use during gameplay.

The concept of "technoattentive" aesthetics refer to the parts in a game that call attention to the technology involved in its production, including graphics, cutscenes, and devices found in general gameplay sequences. Sidhu's The Poetics of the Setpiece analyzes highly constructed sequences that give players the illusion of freewill and a highly complex game environment. Setpieces are spectacular but tightly scripted events that necessitate a limited type of player agency compared to gameplay. According to the author, setpieces "disrupt the player's sense of immediate immersion within a game's fictional world, instead encouraging a more conscious, hypermediated appreciation of a game's technological qualities" (Sidhu 39). In other words, such sequences structure agency and the resulting gameplay to emphasize the role of technology. Suddenly players are not immersed in fiction, they are awestruck by exciting and visually impressive sequences. Additionally, setpieces escape easy classification as the infamous cutscene by including a degree of interaction. While Sidhu limits his analysis of technoattentive aesthetics to the setpiece, it is applicable to other techniques as well. The setpiece expands on strategies originating in the cutscene, including the focus on hiding the alternation between system agency and player agency. More than this, the setpiece is an example of how developers transform cutscenes in order to eliminate their less popular features. This thesis will analyze how technoattentive aesthetics function within cutscenes, including how they change to reflect technical and creative advances.

Chapter Breakdown

This thesis is broken up into two chapters. Although they deal with different cutscenerelated topics, they often overlap and complement one another. In particular, the first chapter provides concepts related to agency that are relevant not only for the argument it develops, but for the technoattentive-related argument developed in chapter two. Preceding this introduction is a brief list of abbreviations for readers to refer to in order to better understand my arguments. Chapter one aims to accomplish two primary goals. The first task of this thesis is to pinpoint how the most dominant type of agency operates in video games. In doing so, I will also identify the qualities that make this style so popular. Once established, we can compare this dominant style to the types of agency provided by cutscenes and related devices. By analyzing prominent theories of agency and their impact on the gaming industry, I will demonstrate how the general dissatisfaction and frustration towards the cutscene clearly reflects a player-centric bias that overlooks system agency. I will establish *why* the cutscene (and, by extension, system agency) is so often treated as something outside of the overall gaming experience.

Chapter one's second aim is to interrogate how both system and player agency operate in video games. By engaging with my first case study, *Resident Evil 2* (Capcom, 1998), we will identify different types of cutscenes and consider how they assert system agency differently. Indeed, developers have different options when including cutscenes. For instance, they may include either Full-Motion Video (FMV) or in-game cutscenes, each with its own stylistic and technical qualities. They also allow us to locate similarities between gameplay and cutscene, including how they structure player agency. Moreover, this analysis is not only significant for better understanding cutscenes, but for better understanding how games structure player and system agency within prescripted responses.

Graphics and the resulting audiovisual qualities are contestably the most significant examples of system agency. The cutscene handles graphics through either consistency or disparity with gameplay. Graphical consistency often means that cutscenes run in "real-time" and use the same graphics engine as in gameplay. This section will closely consider how sequences progressing in real-time compare to sequences that do not, and how such distinctions impact a gaming experience. We will situate each strategy in its respective historical context to better understand why players and critics more readily accept one over the other, including the current preference and prominence of graphical consistency.

Subsequently, the chapter will consider the alternative forms of agency that critics are often in opposition against. I will specifically consider the "quick-timer event" (QTE), which provides a distinct form of agency. Using examples from the *Resident Evil* and *Metal Gear Solid* franchises, the section will consider how this style of agency operates and differs from the dominant style found in gameplay. Rather than condemn such sequences, we will discuss what they provide and, equally importantly, what they *do not* provide. In conjunction with the previous sections, the analysis establishes the standard model of agency that players and critics treat as inherently positive without regard to context. It is this model that implicitly regards the cutscene and QTE as inferior gaming devices.

Analyzing devices like the QTE and pre-scripted action sequence (PSAS) allows us to further interrogate the style of agency that the gaming community generally prefer. Both these unique and dominant forms strive to hide or at least deemphasize the more obvious shifts between player and system. Nitsche explains that in gameplay, the "assembly along a freechosen path of the player through the game world hides the system's limitations and projects the illusion of a complex game world" (54). *Metal Gear Solid 4* takes this concern to the extreme through hybrid techniques that ultimately complicate the usual distinctions between cutscene and gameplay. It demonstrates how games can respond to criticism by changing cutscene functions. It incorporates a number of techniques that require an overall reconsideration of both the cutscene and agency.

Chapter two considers how studios mobilize the technoattentive aesthetics of the cutscene and related devices to further their promotional goals. The primary goal of this chapter is to examine how studios emphasize and ultimately standardize technological innovation to prepare and encourage players to purchase future products. The cutscene participates in the perpetual innovation economy so important for the mainstream gaming industry. In this sense, the cutscene is again more important than its critics give it credit – this time for promoting purchases within the gaming community. The industry takes advantage of certain aesthetic and technical decisions to support the sense of technological and creative progress and innovation. This sense of progress justifies the regular release of new video game consoles and encourages consumers to anticipate such releases. New releases are not simply additional products to choose from, they are promoted as being altogether superior to preceding models. This promotion occurs through a variety of methods, including the exploitation of dominant aesthetic qualities. By analyzing the cutscene, we can better identify and understand these qualities.

Through this analysis, the chapter will demonstrate how formal histories are always intertwined with power structures, in this case being capitalism. A video game's design and the agency it necessitates is not accidental. Although power in video games is a complicated matter, I address it here largely by focussing on the drive for novelty within a capitalist system, predicated on plain geo-political inequalities. In this case, power operates through the cycles of novelty that are encouraged by the cutscene. Indeed, video game producers design and mobilize cutscene aesthetics in order to further advance the perpetual innovation economy that they operate within, with the intent of maximizing profits.

The chapter begins with an in-depth consideration of the gaming industry's perpetual innovation economy. Studios encourage this process through a variety of strategies, including within games themselves, as well as within the promotional material preceding and accompanying their releases. Along with studio efforts, websites dedicated to video game coverage also emphasize future releases and innovation. However, *what* studios choose to promote as new and innovative regularly changes. Technoattentive devices like the cutscene effectively display such modifications, providing helpful information on trends in innovation. Moreover, by engaging with devices and concepts introduced in the first chapter, we will gain further insight on how cutscenes (or a lack thereof) participate in promotional efforts. Devices gain additional significance within a promotional context and reveal how mainstream studios engage in a cycle of obsolescence and innovation. This thesis will argue that in the present video game landscape, the new marker of innovation is an aesthetic of "continuity and simultaneity" visualized through photorealistic graphics.

We will consider how designers adapt the cutscene in order to fit within this aesthetic style. For instance, Full-Motion Video is a commonly utilized technoattentive device in video games of the mid-1990s, yet it is highly uncommon in contemporary games. This device effectively reflects how quickly particular devices lose their relevance, or disappear from popular usage altogether. The FMV was once innovative in a particular technological context. Once developers improved the quality of in-game cutscenes, the FMV was no longer considered impressive. Based on my own observations, the QTE was popular in games of the late 1980s and early 1990s before essentially disappearing until reappearing in the early 2000s. Game devices regularly appear and disappear, depending on the state of video game technology and design trends. Both the FMV and QTE were once innovative, but only because gaming studios encouraged this perception. Today, the QTE's resurgence reflects ongoing experimentation in an attempt to achieve continuity and simultaneity.

Along with this "continuous and simultaneous" aesthetic, graphics are an especially important marker of technological progress and are often designed to appear lifelike. Although this may seem obvious to the casual observer of game history, the dominance of photorealism as an aesthetic in video games is rarely discussed in video game scholarship. With all that video game technology can provide, why do developers continue to push graphics technology in this direction? A portion of this thesis will consider why photorealism is so commonly sought after in 3D video games, while also paying attention to how cutscenes showcase and arguably enhance this quality. Again, the cutscene's role in producing this effect depends largely on context. With regular technical and creative developments, graphics once deemed as appearing lifelike eventually become less impressive. The many ways that developers have designed and incorporated cutscenes throughout video game history exposes the overall importance of photorealistic graphics in this particular perpetual innovation economy. It also demonstrates how gaming studios standardize technical innovations like increased photorealism.

Standardizing innovation provides players with expectations for future technical developments. For instance, we are less frequently surprised by innovations in photorealistic graphics because it is a regular occurrence that we now anticipate. Studios ensure that their future products are innovative by controlling the standard by which innovation is measured. I will further demonstrate this by considering some of the more recent strategies of obtaining continuity and simultaneity, such as through prescripted action sequences and sequences known as setpieces. Although this style continues to dominate mainstream video games, it will continue to change depending on player interests and the technical and creative environment.

Above all, this thesis aims to demonstrate why cutscenes are in fact valuable objects of study within a variety of gaming-related contexts, from the history of game studies and the arguments about agency within it, to the importance of cutscenes to the establishment of the aesthetics that drive perpetual obsolescence. As this thesis will argue, not only do cutscenes help us expand our ideas surrounding agency in video games, they also showcase some of the ways that studios exploit technoattentive aesthetics. Gaming scholars regularly discuss both topics, but a consideration of the cutscene will add further depth to current discussions. Through this analysis, I hope to fill the research gaps that exist from the generally antagonistic, or dismissive attitude towards the cutscene, and potentially encourage scholars to perform further research on the device. Analysis of the cutscene may indeed provide the key to debates within game studies, and lead to a further understanding of the game industry itself.

Chapter 1: Cutscenes and Agency

The cutscene is a video game device that explicitly restricts interactive access. By reducing player agency so drastically, cutscenes fall outside of the standard of agency frequently praised by scholars and critics. Above all else, this standard encourages as much player agency as possible. Video game scholars neglect closely analyzing cutscenes on this basis. The purveying apathy towards cutscenes reflects an incomplete comprehension of agency in video games. Juul posits that the device "disconnect[s] play time from fictional time," but this overlooks what cutscenes provide for players, and through what means they interpret fictional time (145-47). Although player agency is an integral part of video games, it is not the exclusive context in which we can discuss them. In addition, when we do discuss how games structure player agency, we must not dismiss sequences offering less access than others. These sequences contain unique forms of agency and engage with players differently for a reason. It is thus necessary to look closely at system agency to better understand these moments. Likewise, judging games exclusively by how much player agency they provide only gets us so far and ultimately leads to the anti-cutscene attitudes we are addressing.

The standards by which scholars and critics evaluate games are based on a media specific ideal that elevates player agency over system agency. Indeed, as Matthew Weise explains, the general consensus is that "non-playable sequences [...] are arbitrary to the main identity or 'essence' of the game" (6). This essence is player agency, the player's ability to act. How the system asserts agency, on the other hand, is considered less important. This is evident when Juul distinguishes games of emergence from games of progression (71). While in the former type players uncover information through exploration, the latter type delivers information through devices like cutscenes. Games rarely rely exclusively on one type, yet the former is frequently

encouraged. The more apparent the system's role is when delivering information, the more it apparently hinders the overall experience.

Cutscenes are easy targets since they almost exclusively rely on the system for extended periods of time. However, they are interesting for this very reason. They allow us to look closely at the components that the system engages with: graphics, character and camera movement, staging, editing, and sound. These are equally relevant in film, yet they obtain new meaning in a gaming context. Through these components the system manipulates fictional time and space. Through an in-depth formal analysis of the *Metal Gear Solid* and *Resident Evil* franchises, this thesis argues that this same manipulation also occurs within gameplay, which demonstrates the multifaceted nature of gaming agency as well as some less obvious links between gameplay and cutscene. In particular, the system engages with and responds to players through temporal patterning strategies.

Before beginning this analysis however, it is important to discuss some general concepts and arguments surrounding agency, while paying close attention to how they operate within a digital media context. These concepts originate from anthropology and sociology, and are occasionally applied in video game studies, such as by scholars Harrell and Zhu. I will apply these concepts to better understand the style of agency that scholars and critics favour, including why it rarely accommodates cutscenes.

Agency in Video Games

In a more general context, individuals assert agency through physical body movements. Anthropologist Laura M. Ahearn explains that, "agency can be considered the socioculturally mediated capacity to act, while praxis (or practice) can be considered the action itself" (118). The distinction allows us to consider the particular means through which individuals assert agency, as well as the sociocultural contexts in which they occur. There is a process involved in any body movement, no matter how simple. However, scholars continue to debate the degree to which sociocultural contexts impact and motivate individual actions.

Indeed, agency theory explores the relationship between structure and action. As Piotr Sztompka explains, "[s]ocial life as a process of structural emergence via actions, and the tension between actions and structure as the moving force of the process are the ideas that form the core of recent theories of agency" (35). Moreover, contemporary agency theorists attempt to negotiate the relationship between structure and action, seeking to understand how they dynamically inform one another. Tom Burns discusses two ways of considering human agency: Rational Choice Theory and the Social Theory of Action. While the former is asocial and essentially ignores sociocultural contexts, the latter posits that agency is socially constructed and dependent on human norms and values (Burns 202-04). Although discussing each theory is beyond the scope of this thesis, the primary issue with the former theory is undoubtedly the lack of attention given to social contexts and structures. By elevating the role of the individual over relevant sociocultural contexts, this theory resembles the style of agency most often favoured by game critics and scholars.

Like rational choice theory, Ahearn explains that the "agency as freewill" model is ineffective by giving all importance to the agent at the expense of the socio-cultural context in which they operate (114). In video game studies, this translates into a model in which a "good" game provide the player with the freedom to do as they please. "Agency as freewill" is the core ideology of anti-cutscene rhetoric. It fails to consider the importance of structural limitations and affordances in shaping the agent and their decisions. Harrell and Zhu's *Agency Play* considers this model's impact on game analysis and criticism, arguing that it "overlook[s] the importance of meaningful constraints and conditions in the context of the story" (46). They also identify its relevance within influential texts on the interactive narrative, including Janet Murray's *Hamlet on the Holodeck*. Moreover, even though the system is predominantly responsible for the player's experience, its contributions are either ignored or negatively evaluated. In fact, many of the affordances that the system provides work towards creating the illusion of free will. Harrell and Zhu explain that "[i]n these games, a sense of free will is often conveyed to the user by means of enabling robust forms of spatial navigation and interaction with objects in the game world" (46). Video games encourage this sense through techniques that hide the variety of limitations imposed by the system.

As previously discussed, we classify what the system provides as *system agency*. However, the notion of agency deriving from material objects does not originate within video game studies. For instance, Harrell and Zhu discuss the Actor-Network theory of agency, originally developed by Bruno Latour, which acknowledges "material agency," but does not distinguish it from human agency (46). Although this lack of distinction is problematic when analyzing how one assumes and operates agency, it nonetheless recognises our perception of agency originating from non-humans. Likewise, Kate Forbes-Pitt argues that individuals ascribe "evinced agency", however limited, to non-human digital technology as a means of explaining their spontaneous actions (127). Some technologies like Apple's Siri take advantage of this process by mimicking human-to-human contact in their designs. Although the system does not consciously assert agency, players ascribe agency to the video game console in order to understand its responses to their input on the controller. In this way, the structure provided by the system is dynamic, and not simply a context in which the player's agency operates. According to Harrell and Zhu, "[w]e refer to the capacity of the computational system to modify the story world and provide affordances for users actions as *system agency*" (4). Moreover, system agency is an effective term for discussing everything that the system provides.

We can discuss how video games structure both aspects of agency within four contexts as identified by Harrell and Zhu. *Agency relationship* refers to the limitations and affordances given to the player, as well as the degree of dependency between player and system; *agency dynamics* considers how this relationship changes over time; *agency scope* corresponds to the overall impact of system and player actions; *user input direction* considers how the player's input impacts the previous contexts (Harrell 5-7). Breaking up agency into these categories facilitates a more thorough and effective understanding of how it operates in video games. Since a major component of this thesis is to better understand the back-and-forth between player and system agency, agency dynamics, we must apply Kenny Chow's concept of temporal patterns.

Video games respond to player agency through a variety of temporal patterns. Temporal patterns do not identify *what* players can do, but *how* their input relates to the system's corresponding response. Discussing the relationship between user input and system response, Chow argues that "[t]he way of interweaving user input and system feedback over time constitutes the pattern [...] The more continuous and simultaneous the temporal pattern is, the more easily the user becomes accustomed to and develops affection toward the digital environment" (76). Chow identifies the coupling and sustaining temporal patterns as those most often praised in video game criticism and scholarship. According to Henry Jenkins, the "memorable moment [in video games] comes when the computer does something that follows logically from your actions, yet doesn't feel like it was prescripted and preprogrammed" (180).

Although everything in a game is technically prescripted, the player does not necessarily perceive this as so. Their perception is affected by a device's temporal patterning in relation to the entire video game.

Within a coupling temporal pattern, both system and player agency appear to operate simultaneously. Although the system responds to the player's actions, the shift from player to system is practically imperceptible. When players navigate an avatar through a virtual world in games like *Resident Evil 2* and *Metal Gear Solid*, the avatar's walking animation progresses simultaneously with the player's command. In this way, movement appears to be continuous. In point-and-click adventure games like *Myst* (Cyan, 1993) however, gameplay consists of navigating through a fictional world made up of static images. Players observe an image depicting their location, use the mouse pointer to select where they will go from there, and then must wait for the system to generate the following image before making another selection. This is an example of an alternating temporal pattern, in which the shifts between player and system are more explicit. In such instances, player agency is more clearly put on hold while a system response occurs. Agency in video games is always discontinuous. It is the ways that developers handle temporal patterns through visuals that are significant.

A "continuous and simultaneous" aesthetic necessitates devices that occur within a coupling temporal pattern, and functions to disguise a video game's inherently prescripted nature. Players perceive a greater sense of freedom since the system's role is less obvious and agency appears to belong entirely to the player. As explained in the above quote from Chow, a continuous and simultaneous temporal pattern helps players become accustomed to navigating through a virtual world with greater ease (Chow 76). Players understand the results of their actions and develop expectations when controlling their avatar. In this way, they utilize "causal
knowledge." Jennifer Hornsby explains that "[w]hen agents do things by moving their bodies, they draw on causal knowledge, some of which is knowledge of relations of event causation, including knowledge of what their bodies' movements cause" (16). Through causal knowledge, individuals understand, at least on a basic level, how they perform actions, and how such actions impact the surrounding environment. Individuals gain causal knowledge through everyday experiences, allowing them to develop expectations for the future. Moreover, causal knowledge is necessary for a prolonged engagement with the world and, by extension, video games.

Cutscenes frustrate players by utilizing an alternating temporal pattern instead of a coupling pattern. A primary cause of anti-cutscene rhetoric is the way the device challenges the expectations players develop during "continuous and simultaneous" gameplay segments. Something that complicates causal knowledge in video games is not inherently bad, as it may be in the real-world. Instead, negative reception of this occurrence reflects a reluctance to accommodate non-player-centric sequences. The potential actions we perform in video games are far more limited than those in real-life. Although many games use the system to encourage players to develop a sense of causal knowledge during gameplay, it can just as easily disrupt this process. However, it is important to note that disruption and discontinuity in video games are not inherently negative. This attitude reflects a player-centric model of agency that encourages a seamless and seemingly uninterrupted experience, thereby adhering to a freewill model of agency as found within a "continuous and simultaneous" aesthetic. Although this is a current trend in video game design, it is by no means superior. We cannot reject the cutscene on this basis. Instead, I will consider how gameplay establishes a sense of causal knowledge through particular temporal patterns, and how the cutscene complicates this sense.

The Cutscene vs. Gameplay

Like all game devices, the cutscene is a system response to the player's actions. As explained by Kiss, gameplay "is an endless advancement through sophisticated feedback loops: the game responds to the player's input, while she has to adapt to the game's response," (418). Moreover, the player triggers a cutscene through action (or inaction) and must adapt to the device. Since players must often wait until the sequence is over before inputting further commands, cutscenes appear to suspend gameplay. As a response to the player, the traditional cutscene engages with the player through an alternating temporal pattern (Chow 76). In other words, through its alternating temporal patterning, the cutscene does not encourage a "continuous and simultaneous" aesthetic. Cutscenes emphasize the "back-and-forth" between system and player that gameplay frequently hides.

Players of *Resident Evil 2* first see their avatar, Leon Kennedy, during a cutscene. The opening shot tracks Leon's car, beginning on the front wheel before booming up and left to reveal the headlights. The following shot, which fades in from the previous image, shows the car speeding directly away from the camera, towards the horizon. The camera then booms up to reveal a sign reading: Raccoon City. An onscreen flash of light triggers a series of moving camera shots of the city, along with music reminiscent of a horror film. In the fourth shot of the empty city, Leon's vehicle enters from the background. The camera circles the car as Leon steps out, before ending on a close-up of the protagonist. The game finally reveals the avatar to the player. Following additional exposition revealing the zombie outbreak, the cutscene's end triggers the first gameplay sequence. The events leading up to gameplay are entirely outside of the player's control. Instead, agency derives from the system for an extended amount of time.

Within gameplay, on the other hand, agency shifts between player and system at a far quicker rate, rendering the process nearly imperceptible. Within gameplay, players control an avatar to navigate through and engage with a virtual world. Moreover, the player predominantly asserts agency through avatar movement and actions. Although the potential actions are ultimately delegated by the system, they are player-dependent. These devices are commonly known as "prescripted action sequences" (PSAS). The PSAS is a brief avatar animation in response to a player action (Fencott 131). Whenever the player navigates using a game's avatar, for instance, they inevitably trigger a PSAS. Players push the control stick to move the avatar, triggering a walking PSAS which the player must take into consideration before triggering further movement. Since the walking PSAS utilizes a simultaneous temporal pattern, there are no perceptible shifts in agency. The system provides players with affordances and, when triggered by the player, depicts them through PSASs. For every player action, there is a backand-forth between player and system making it possible.

For instance, in *Resident Evil 2*, when Leon faces an object he can pick up, the player presses the 'x' button and triggers a PSAS. There are two animations for picking up items. Leon either crouches to pick something up from the floor, or he reaches directly ahead. In either case, the player waits for the brief animation's completion before making further decisions. *Metal Gear Solid*, on the other hand, allows players to pick up items simply by navigating Snake towards them, either while walking or crawling. This calls for a different set of PSAS. When players click 'x' to lay Snake down and crawl, they witness a PSAS of the avatar laying down. Additionally, the game provides a new navigation PSAS to reflect Snake's new position. Although the actions from both games are different, they all relate to the player's command through an alternating temporal pattern. However, since they are so brief and allow players to

quickly resume making decisions, the alternation process does not pose significant problems for a continuous and simultaneous aesthetic. Regardless, the PSAS and cutscene frequently function according to the same temporal pattern. For both, player agency is put to a standstill while the system provides a prescripted response. In order to better fit within a "continuous and simultaneous" aesthetic however, many contemporary games strive to hide the separation between player and system.

Contemporary video games often employ highly complex PSASs that more effectively hide lapses in player agency. Unlike in Metal Gear Solid, in which Snake may only move while standing or laying down, Metal Gear Solid 4 allows Snake to navigate while crouched. A more specific detail, Snake occasionally pats his back while crouched to signal pain. Even more recent, the post-apocalyptic adventure game, The Last of Us (Naughty Dog, 2013), features PSASs incorporating numerous variations that take the game's environment into consideration. In this way, the game actually applies the PSAS through coupling and sustaining temporal patterns. For instance, when the player triggers Joel to pick up items from a table, they can still navigate him during the process. In this way, the resulting PSAS must take the player's simultaneous movements into consideration. Such actions appear spontaneous and 'realistic,' but they are simply more complex responses generated by the system. As King and Krzywinska explain, "a greater depth of functional detail can contribute to the relative degree of immersive illusion that is created" (144). Joel's actions are similar to those of Leon, but they distinguish themselves through their heightened detail provided by complex temporal patterning strategies. For the most part, the gameplay of *Metal Gear Solid 4* and *The Last of Us* utilize continuous and simultaneous aesthetics. In both examples, the PSAS hides its prescripted nature through seemingly "spontaneous" details.

In character-driven, 3D video games, an array of PSASs, however complex, aid players in developing causal knowledge surrounding the game. Through this causal knowledge, players understand the on-screen actions resulting from their button commands. In this way, they develop expectations that help them when navigating their avatar in a virtual world. Video game reviews commonly refer to a game's "learning curve," which reflects the amount of time it takes most players to feel comfortable with gameplay mechanics. In *Metal Gear Solid*, for instance, players must quickly learn basic controls in order to avoid detection from enemy soldiers. In many instances, gamepad buttons have multiple functions depending on context. Rotating and repositioning the left joystick generates movement, but doing so alongside a wall triggers Snake to take cover. As previously mentioned, Snake crouches and lays down when players press the 'x' button, but if Snake is running, the same button will trigger a somersault forward. By learning and completing such actions, the player gains expectations for subsequent gameplay sequences and how to effectively utilize a button's multiple functions.

As a system-generated response to the player, cutscenes are less predictable compared to the PSAS. Although there are exceptions, players cannot accurately predict whether or how their actions on a controller will trigger a cutscene. In other words, whereas a PSAS has a corresponding button or joystick command, the cutscene does not. When a player triggers a cutscene, the system responds through a change in presentation, involving either prerendered video or scripted staging. Cutscenes reveal how the player's agency does not exclusively involve spatial navigation and manipulation (Harrell 45). In *Resident Evil 2*, the player triggers the opening cutscene by pressing the 'start' button and choosing a difficulty setting with the joystick and 'x' button. Introductory cutscenes are common, yet players still do not know for certain whether one will occur. Other instances are even less predictable. Players trigger an early cutscene in *Metal Gear Solid 4* by simply navigating Snake into a particular room. A cutscene may make sense in retrospect, especially in narrative terms, but it also complicates the player's causal knowledge of a particular game. Not only are cutscenes unpredictable responses, they utilize an alternating temporal pattern that does not encourage a "continuous and simultaneous" aesthetic. Additionally, certain cutscenes further complicate the player's causal knowledge through inconsistent visuals by incorporating Full-Motion Video (FMV).

Graphics and Consistency

Many cutscenes in games of the mid-1990s, including the above example from *Resident Evil 2*, utilize FMV, which provides high quality graphics unattainable during real-time gameplay. As the name suggests, FMV is a prerendered video that does not use the console's graphics engine. The terms "real-time" and "in-game", on the other hand, connote sequences that progress using the same graphics engine as in gameplay. Many of *Resident Evil 2*'s cutscenes are FMV, and are thus visually and stylistically distinct from gameplay. Although there are exceptions, many early 3D narrative video games of the mid-1990s contain cutscenes of this style. According to the developers of *Crash Bandicoot* (Naughty Dog, 1996), FMV allows creators to "reinvent [...] characters into more versatile, fully developed personalities" (Moltenbrey). FMVs are useful for narrative developments, yet they are even less predictable than most in-game cutscenes due to their distinct visual qualities. Games like *Resident Evil 2* incorporate both cutscenes using FMV, and cutscenes running in real-time.

Whether a cutscene is in real-time or FMV has numerous implications. FMV sequences are increasingly uncommon in recent 3D video games. As previously mentioned, FMV sequences consist of prerendered video and contain graphics that are absent from gameplay. The

previously described cutscene from *Resident Evil 2* runs in FMV, and does not depict a navigable environment. The various shots of Raccoon City may resemble the space in which players control Leon, but they nonetheless occur within a pre-rendered video. The system cannot support these higher quality graphics in real-time during gameplay. FMV drives home the point to players that they now lack agency. For instance, the game utilizes FMV to present Leon's first encounter with the "Licker," a creature more powerful than the more frequently encountered zombie. Although the monster in the cutscene is supposed to be the same creature that players encounter during the subsequent gameplay segment, it is depicted in higher resolution and provides much more detail. When the Licker growls in the FMV, the result is a sound that does not reoccur in gameplay. In this way, the FMV further complicates causal knowledge through its audiovisual qualities, and not only through its alternating temporal pattern. Players experience an explicit shift in both agency and graphical representation. According to video game scholars and critics, such an explicit shift is inherently negative. This logic is supported by a playercentric bias that rejects discontinuity.

The notion that cutscenes generally exist outside the main game space reflects a period during which the FMV was standard. Even Klevjer's influential text from 2001 suggests that cutscenes are *always* prerendered and cannot exist in real-time (195). He analyzes car-jump sequences in *Grand Theft Auto III* (Rockstar, 2001), explaining that they are "generated in realtime but [look] much like a spectacular cutscene, a result of the triggered slow-motion effect and change of camera angle" (*Ibid*). Klevjer revises his opinion in a more recent work to include ingame cutscenes, positing that the device "implie[s] more flexibility to rapidly jump back and forth between the two spaces, as the cut between them [is] no longer immediately apparent from the quality of the image itself" (307). The cutscene's traits and overall definition is continually expanding, especially when considering recent games that complicate the traditional cutscene/gameplay binary. By including in-game cutscenes rather than FMV, graphics and animations are consistent throughout (Cheng 18). *Metal Gear Solid*, for instance, contains ingame cutscene that are graphically identical to gameplay. The back-and-forth between player and system is increasingly imperceptible.

Indeed, in-game cutscenes utilize the same graphics as found in gameplay. In terms of agency, they relate more closely to the PSAS, which also occurs in-game. Within gameplay, both the in-game cutscene and PSAS temporarily shift control of the avatar from the player to the system. In-game cutscenes, however, are more likely to also involve system-generated camera and non-player character (NPC) movements. Unlike FMV, the device more effectively fits within a "continuous and simultaneous" aesthetic. The system takes control, but its actions occur in the same virtual environment in which the player makes decisions. They involve an alternating temporal pattern, yet consistent visuals make this less obvious. Likewise, they often take at least some of the player's decisions into account, such as avatar costume choices. Indeed, though contemporary cutscenes are unpredictable, they provide less jarring transitions by maintaining visual integrity.

For instance, when the player directs Leon to enter a police station locker room, they also trigger an in-game cutscene. Unlike in the earlier sequence in which gameplay triggers a video, this in-game scene gives the system control of Leon. When the cutscene ends, the player immediately resumes control within the same space. Similarly, when Leon walks into a weapon store, the camera faces him and limits the player's view. Upon instructing Leon to walk forward however, players trigger an in-game cutscene. An off-screen voice instructs Leon to stop. The system takes control of Leon, forcing the player to oblige the command. A reverse shot reveals the shop owner armed with a shotgun. The sequence utilizes static camera angles as it does during gameplay. Rather than trigger a video however, the game momentarily removes control of Leon from the player. Both games depend on in-game space to function and do not incorporate the literal "cut," that the device is known for.

Moreover, the cutscene can consist of a video or elaborate character staging. The latter strategy utilizes an alternating temporal pattern that more closely resembles the PSAS, since the player's action triggers an extended sequence in which the avatar is no longer in their control. In cutscenes however, the system often takes over for an extended amount of time, sometimes for over a few minutes. No matter how closely a cutscene resembles gameplay, it still emphasizes the role of the system through its length. Likewise, in cutscenes the system often asserts agency through other means, including camera movement and angle. An in-game cutscene is essentially an extended PSAS with additional system-generated stylistic traits. In FMV, the system provides a video usually showcasing graphics superior to those in gameplay. By occurring in real-time however, in-game cutscenes, on the other hand, are able to provide qualities that cannot occur in FMV.

In-game cutscenes are increasingly popular with game developers by allowing for variations and more possibilities for the player, unlike the FMV (Cheng 18). For example, *Metal Gear Solid 4*'s cutscenes take Snake's customizable outfit into account. If players equip Snake with a mask during gameplay, he wears the same mask during subsequent cutscenes. The player asserts agency by choosing Snake's costume, and the game's cutscenes reflect this. Costume choice adheres to a sustaining temporal pattern that even carries over into cutscenes. This provides players with a degree of freedom in how a cutscene looks. In contrast, when *Resident Evil 4* (Capcom, 2005) was rereleased on the Playstation 2, it differed from the original through

its use of FMV, which do not reflect the player's costume changes. Since FMVs are entirely predetermined, they are unable to include such player-determined details. A disparity in costume calls attention to a shift in agency towards the system. Through costume and additional strategies, in-game cutscenes allow developers to make shifts between player and system less obvious.

For instance, some games try to hide this division by using camera movement to tie cutscenes back into gameplay. Unlike its predecessors, *Metal Gear Solid 4* often (but not exclusively) utilizes the tracking shot to generate seamless transitions. There is no correct method to combine these separate narration strategies, but one of many trends is to do so as seamlessly as possible. Adhering to the "continuous and simultaneous" aesthetic, the fewer "interruptions" there are (i.e. the loading screen, graphical disparities, etc), the better the overall experience. In the shot leading to gameplay, a low-angle shot watches a helicopter as the camera tilts down. The shot reveals Snake at the bottom of the frame looking off-screen right. As the camera slowly cranes up and tracks away from Snake, he turns to face the left. The gameplay interface fades in, revealing Snake's health indicator, equipped items and weapons, as well as a compass and camouflage information. Snake's entire body is in view when the backwards tracking shot finishes, thus conforming to the game's use of camera during gameplay. With such visual cues in place, the game gives the player control of Snake and the camera for the first time, continuing from where the cutscene left off.

Upon instructing Snake to crawl under the truck blocking the path however, the player triggers another cutscene displaying combat between rebels and a private military company. The sequence ends by showing Snake hiding from the soldiers against a stack of boxes. The camera tracks toward Snake while the interface fades in, before panning right to display his upcoming path. Finally, the camera rapidly tracks back to its gameplay position, allowing players to resume control of the avatar and camera. The cutscene utilizes standard continuity editing conventions, but it often uses the moving camera to seamlessly transition back to gameplay.

Released ten years earlier, *Resident Evil 2* incorporates the straight cut to transition between cutscene and gameplay. Cuts are made especially obvious when they involve FMV. Indeed, transitions from FMV to gameplay are made explicit by the former's high-quality graphics. In-game cutscenes provide players with a visually consistent experience that, in theory, maintains the game space. The system takes certain liberties in regard to avatar movement and camera angle, but the space remains the same. Although games may provide FMV sequences that resemble their in-game counterparts, the system nonetheless cuts away from the game space to play a pre-existing video. Moreover, although FMV once supplied players with graphics unattainable during gameplay, it draws attention to the system's role in the experience and thereby does not comply with a "continuous and simultaneous" aesthetic style. Along with in-game cutscenes, games incorporate other techniques to more effectively bridge cutscene and gameplay.

Agency and the Quick-Timer Event

One such technique is the "quick-timer event" (QTE). The QTE is a device found within both cutscenes and gameplay sequences. The game quickly relays one or more button symbols on-screen as found on the gamepad, which the player must press in response. For instance, *Resident Evil 4* instructs players to repeatedly press the 'a' button to escape a runaway boulder. If the player is not fast enough, the boulder kills Leon. Although they function similarly to a PSAS, QTEs are less predictable and are not entirely player-dependent.

OTEs are especially significant for attempting to bridge the gap between gameplay and cutscene, infusing the latter with a stylized version of the former. In Resident Evil 4, players run away from a boulder by pressing the 'a' button, and then dodge its trajectory using the 'b' and 'x' buttons. Additionally, there is a drastic change in camera angle, with the camera facing Leon as he runs. During gameplay however, players run at a slower pace, and only by directing the joystick while pressing 'b'. In the QTE, players cannot apply the same causal knowledge as during gameplay. This type of QTE adheres to an alternating temporal strategy, and triggers unique PSASs that players will not encounter again. They cannot accurately predict what their commands will trigger, except that they will allow the game to continue. Players comply with the on-screen button commands, unaware of what will happen next. A PSAS during gameplay, on the other hand, is rarely a unique occurrence. Players become accustomed to them because they occur so regularly. For instance, players of Resident Evil 2 learn immediately that clicking 'x' next to an item will trigger a PSAS showing Leon reaching for the item. Moreover, although the QTE and PSAS function according to similar temporal patterns, it is the former's unpredictability that distinguishes it from the latter.

Moreover, the QTE provides players with a unique form of agency often neglected or criticized in game studies. Paul Cheng explains that "[w]hile 'look and feel damn cool' isn't exactly precise critical language, it is defining the way in which these moments, coupled with the other interactive elements of the game, create a specific type of representational agency for the player: the feeling of being 'the star of an action movie' (17). Although players have fewer, less predictable options, the QTE allows players to experience spectacular interactive sequences that cannot occur in gameplay. Unlike in conventional cutscenes however, players still contribute to the on-screen action. In this way, Cheng offers an additional method for understanding the

seemingly limited style of player agency found in QTE sequences. At the same time, the author's self-acknowledged lack of critical terminology generates some ambiguity. *Resident Evil 4*'s QTEs regularly involve high-intensity life-or-death situations that have a significant impact on the player's progression. From this standpoint alone, it is easy to see why Cheng associates the QTE with "the feeling of being 'the star of an action movie,"" (*Ibid*). By considering the QTE in other franchises, we will develop a more expansive way of understanding *representational agency*.

Later entries in the *Metal Gear Solid* franchise demonstrate some of the creative ways developers can combine cutscene and QTE. However, they are unlike the QTE found in *Resident Evil 4* by being optional. Rather than progress gameplay, they frequently present information through Snake's POV, which is occasionally pertinent to the player's objectives. When Snake approaches his destination during *Metal Gear Solid 3*'s (Konami, 2004) first mission, a cutscene shows him kneeling down beside a tree and looking through his binoculars. The top of the screen suddenly displays the 'R1' button. By pressing the button, players gain access to Snake's point-of-view, which informs the player of oncoming enemies. Likewise, when Snake is imprisoned in a secret Soviet base, a lengthy cutscene briefly allows players to access his POV. In doing so, players witness a stealthy ally holding a sign with a radio frequency that unlocks his cell door. Moreover, there are QTEs that explicitly help players tackle subsequent gameplay tasks.

The game's final QTE however, is interesting for its lack of a gameplay function. Instead, player's gain insight into the protagonist's psyche, accessing Snake's tear-filled POV as he faces the grave of his mentor. In each example, the player can either ignore the QTE and simply watch the cutscene, or press the appropriate button and witness the result. For a brief moment, the system provides players with two perspectives to choose between. Players gain limited control of the cutscene's overall form.

Whether *Metal Gear Solid 3*'s QTEs function towards gameplay or narrative concerns, the system briefly engages with the player through a sustained temporal pattern. Although the information itself is entirely predetermined, the system briefly gives some control to the player, during which they can scan Snake's immediate surroundings. During gameplay, the POV device is one of the many available player-dependent devices provided by the system. Within the cutscene however, the POV device is only available to the player for a brief amount of time, and without the additional components that make up gameplay. Such QTEs utilize familiar gameplay devices that function according to a different type of agency. Through such familiar components, there is less of a disparity between cutscene and gameplay.

Metal Gear Solid 4's cutscenes expand on this strategy. Although the game does not utilize the QTE with the same sense of life-or-death urgency as in *Resident Evil 4*, it nonetheless encourages players to pay attention to the sequence and to continue holding the controller. Graeme Kirkpatrick explains that simply holding a controller "always involves a physical tension for the player, even if we are just waiting for the end of the cut-scene," (108). As the author also points out however, the QTE can undermine the act of waiting by giving the player control during the cutscene (*Ibid*). Additionally, the game's cutscenes incorporate numerous conventions from cinema in ways that require the player to access them. As in the previous entry, some cutscenes allow players to access Snake's POV. During the opening sequence, blood drips onto Snake's shoulder, causing him to look upward. The screen displays the 'R1' button, allowing players to see the enemy standing above the protagonist. The most common cinema-related QTE in the game is the superimposition flashback. Occasionally when Snake remembers a particular individual, place, or event, the screen displays the 'x' button. Whenever the player presses the button, they access a variety of fleeting static images superimposed on the centre of the screen. For instance, when Snake and Otacon begin discussing the character Naomi, players can access images of her from previous games. If players choose not to trigger the images, they instead watch Snake look off-screen for a few seconds, until the cue disappears. Not only does this technique function within the game's narrative, it equally references the history of the *Metal Gear Solid* franchise. Flashbacks utilize original screenshots from the previous games, thereby articulating advances in video game technology. Flashbacks to the original *Metal Gear Solid* are not updated to Playstation 3 graphics, they appear as they did on the obsolete Playstation. It allows both newcomers and fans of the series to reflect on its progression, both narratively and technologically. How do we categorize this form of agency provided by the cutscene? More importantly, why is the agency provided by gameplay deemed superior?

Interrogating the Illusion of Freewill

In the vein of "agency as freewill," spatial navigation is a common way that video games provide players with agency. For instance, *Half-Life 2* (Valve, 2004) avoids cutscenes by allowing the player to navigate freely through narrative-centric sequences (Harrell 47). Although the events are scripted, the system's scope of agency eliminates particular restrictions typically found within cutscenes. The sequence maintains a first-person camera perspective, and the player can manipulate framing through their avatar's movements. Since there is no literal cut and change in framing style, the sequence is not considered a cutscene. However, player agency is nonetheless significantly reduced. Players are able to navigate their character, but it is often within a limited environment, where they are encouraged to pay attention to predetermined dialogue and movements from NPCs. Similarly, the *Assassin's Creed* (Ubisoft, 2007) franchise frequently provide players with information through limited gameplay sequences. Players must navigate their avatar alongside a NPC, with whom they are conversing. The player's walking speed is greatly reduced, and they must follow the NPC in order to progress to gameplay. Moreover, such sequences are neither conventional gameplay nor cutscene. However, since they alter player agency instead of eliminate it altogether, they appear to give players more freedom. An inherent preference for such in-game sequences reflects a player-centric bias that fails to acknowledge its similarities to cutscenes. Unlike cutscenes, in-game events more effectively hide the role of the system by maintaining some of the agency and causal knowledge established during gameplay. However, they nonetheless function in similar ways. To further demonstrate this, I will analyze sequences from *Metal Gear Solid 4* that explicitly compare both devices.

Metal Gear Solid 4 features sequences that are both cutscene and gameplay. Multiple cutscenes utilize the split-screen to literally balance cutscene and gameplay and utilize both devices simultaneously. In the game's conclusion, players navigate Snake through a microwave tunnel leading to his objective. Players must repeatedly press "x" to make Snake crawl forward. While this occurs on the bottom half of the frame, the top half features an entirely prescripted sequence. The cutscene displays the slowly-occurring downfall of Snake's comrades, which can be stopped once Snake reaches his destination. The QTE in this sequence is life-or-death, but the use of split-screen aims to effect the player emotionally, further enticing them to continue pressing "x." The sequence gains further meaning if players watched all previous cutscenes. They are not simply completing a game objective, they are saving the lives of Snake and his

friends. The pairing of cutscene and gameplay emphasize the game's important interpersonal relationships to make the sequence more than repeatedly pressing the 'x' button (Ryan 295). Additionally, the sequence encourages us to consider its overall complexity by pairing two normally opposed modes of address. The cutscene is carefully timed and progresses long enough to match Snake's journey. In this way, the game combines gameplay and cutscene within a single sequence. The game thereby utilizes two temporal patterns at the same time. Although the player's agency scope is limited to directing Snake forward, the simultaneous cutscene suggests otherwise. *Metal Gear Solid 4* uses the split-screen to combine narration strategies and explicitly connect the player's actions with the game's narrative.

While Snake battles an endless barrage of Gekkos (massive, bipedal, armed robots) on the screen's left, an in-game cutscene on the right displays his ally Raiden fighting an enemy named Vamp. The sequence is difficult to analyze and describe, since both components depend on one another to function properly. Raiden will only defeat Vamp when Snake finishes off the Gekkos. The sequence allows us to appreciate the highly complex oscillation between what is prescripted and what is player-dependent. What is arguably most interesting however, is that players can observe Raiden's battle within the gameplay portion of the frame. At the same time, if players attempt to shoot Raiden or Vamp, Snake will verbally decline. Moreover, players cannot impact the predetermined battle between the duo, but they can observe it within both gameplay and cutscene. In this way, the sequence's split-screen format encourages players to compare cutscene and in-game event.

Metal Gear Solid 4's mission briefings further expand on this strategy. Unlike the previous examples however, they do not include explicit gameplay tasks to attend to. Instead, they encourage the player to explore Snake's headquarters by watching a cutscene with multiple

available camera angles, and by avatar navigation. Mission briefings incorporate a three-way split-screen, allowing players to experience the sequence as a cutscene through multiple camera angles. Within the cutscene frames, the system takes full control of narration. Another portion of the screen, however, allows players to navigate through the game space using the small MKII robot. As previously mentioned, spatial navigation is an important way games offer agency to players. While controlling the MKII, players can observe Snake and Otacon's discussions however they choose. Observation variations are the limit however, since players cannot impact scripted character movements and dialogue. Interactive and non-interactive components are combined. By utilizing both narrative strategies, the game contrasts in-game cutscenes and ingame events. It allows players to choose how they wish to engage with the narrative-centric sequence. Although critics typically praise in-game events over cutscenes, *Metal Gear Solid 4* demonstrates that on a technical level, the devices are nearly identical.

Indeed, in-game cutscenes involve the game's manipulation over the avatar, NPCs and the camera. In-game events enforce limitations on player agency, yet not to the same degree as cutscenes. Although segments in real-time inevitably involve prescripted components, the segment as a whole is not rendered in advance. While in-game events and cutscenes involve groups of individually scripted elements working together in response to the player (as in gameplay), the FMV is entirely prescripted and cannot be altered.

Taking the "continuous and simultaneous" aesthetic to its current incarnation is the *setpiece*. According to Sidhu, setpieces are "brief, tightly scripted, visually bombastic moments of intense spectacle [...] [T]he particular qualities of interactivity that define a setpiece always represent a limited, simplified, or otherwise distilled version of [...] gameplay" (7). In other words, developers include setpieces that reduce player agency in order to better ensure a

spectacular experience. At the same time, by maintaining certain qualities established during gameplay, such sequences hide the fast-paced oscillation between player and system. Many video games no longer resort to cutscenes in order to deliver information. Instead, they utilize devices like the setpiece to give players a sense of heightened agency and control. This is not good or bad, but simply a trend in game design.

Although setpieces are highly scripted, they more effectively appear to occur within a gameplay environment in which the player has complete control over their avatar's path. Successful setpieces hide their tightly scripted designs to progress seamlessly and give the impression of a dynamic, spontaneous, and multifaceted event within a game's fictional environment. For instance, *Uncharted 3* (Naughty Dog, 2011) features a setpiece in which the protagonist must escape a falling building. Although the event is entirely predetermined, its resemblance to conventional gameplay attempts to show otherwise. The setpiece is a particular strategy that strives to fit within a "continuous and simultaneous" aesthetic. Through a seamless style, shifts in agency from player to system are not as easily apparent. However, these shifts occur in the same manner as they do when players trigger cutscenes. Indeed, setpieces involve fast-paced alternating temporal patterns. Appropriating from contemporary cutscenes, setpieces hide this pattern through visual consistency and by regularly requiring responses like the QTE from the player. In this way, players perceive such moments not as setpieces, but as stand-out moments of gameplay.

Sidhu's setpiece analysis considers sequences from the *Uncharted* (Naughty Dog, 2007), *Call of Duty* (Infinity Ward, 2003), and *Battlefield* (Electronic Arts, 2002) franchises. It is important to note that like the present thesis, Sidhu's primary interest is in AAA titles. The studios who fund and release these titles have the necessary resources and promotional needs to

incorporate complex setpieces. Sidhu is critical of the agency afforded by the setpiece, arguing that it does not allow players to perform meaningful actions with differing, potentially negative effects (Sidhu 88). The author's contention with the device resembles the criticism normally directed at the cutscene and related cutscenes like the QTE. For Sidhu, the agency provided by the setpiece disrupts the agency that more common gameplay necessitates. Like cutscenes, the device complicates previously established gameplay-related knowledge, and involves a style of representational agency that critics have come to address negatively. Setpieces fit within a continuous and simultaneous aesthetic through a strategy more similar to the QTE than one associated with gameplay (e.g. PSAS). However, the author posits that developers include such sequences for superficial purposes driven by studio promotional interests. We will discuss these interests in the following chapter.

Chapter Conclusion

The general aim of this chapter was to more precisely identify how agency operates in video games through an analysis of the cutscene. Since cutscenes seemingly limit player agency by adhering to an alternating temporal pattern, it was necessary to better consider the device in the context of system agency. Although I argue that cutscenes often operate just like the PSAS in terms of agency, the shifts between player and system are less explicit in the latter.

Within cutscenes, the system asserts agency over a prolonged period through a variety of components, including graphics, characters, camera and music. These components may or may not differ significantly from gameplay, as demonstrated through the FMV and in-game cutscene. FMVs are quite jarring compared to in-game cutscenes, because they sacrifice visual consistency in order to showcase high quality 3D graphics. In contemporary games however, the shift

between system and player is perceivably reduced through the incorporation of visually consistent in-game cutscenes. This demonstrates how video game aesthetics often change as a result of new technological capabilities. In particular, the growing prominence of in-game cutscenes reveals a trend towards "uninterrupted" gameplay, or at the very least, a trend towards hiding the alternation between player and system.

Development in cutscene design over the past two decades reveals a trend towards a "continuous and simultaneous" aesthetic that frequently structures agency through a coupling temporal pattern. Since player and system action appear to progress simultaneously, players are less likely to notice the shifts in agency between themselves and the system. Video games continue to incorporate cutscenes, but they are often constructed to more fluently transition into gameplay through graphical consistency and camera movement. We analyzed sequences from *Metal Gear Solid 4* in which cutscene and gameplay literally run simultaneously, thus demonstrating an effort to altogether eliminate a sense of alternating. Less extreme, the game also utilizes camera movements to seamlessly transition between cutscene and gameplay. Although this strategy still involves a shift in agency, players cannot necessarily identify when it occurs. On a strictly visual level, the player's causal knowledge is maintained.

Many contemporary games, such as those in the *Bioshock* (2007, 2K Games) franchise, attempt to achieve a seamless experience by avoiding cutscenes altogether. Indeed, some games reject alternating temporal patterns in favour of coupling and sustaining temporal patterns. Yet even within such patterns, there is an inherent alternation between system and player. Even when they appear to function simultaneously, both must still respond to one another. Navigating an avatar while watching them walk appears simultaneous, yet it is really a high-speed alternation. Players perceive navigation and cutscenes as opposing forces, yet they technically function exactly the same. However, it is the cutscene's prolonged absence of player agency that is often negatively evaluated.

The scholarly and critical preference for player agency over system agency reflects a longstanding player-centric bias in video game studies. Within this perspective, the system should not impose itself too greatly on players, and must remain practically imperceptible. It is this line of thinking that leads to anti-cutscene rhetoric. To the detriment of video game scholarship, the ways that cutscenes manage system agency are largely ignored.

The following chapter will consider how games incorporating "continuous and simultaneous" aesthetics function in a promotional context. More than this, I will explore how video game studios exploit particular techniques and devices, including the cutscene, in order to promote their products as innovative. It is not the cutscene that is considered innovative, but some of the qualities that it showcases.

Chapter 2: The Technoattentive Cutscene and Innovation

The video game market involves frequent hardware updates and upgrades. Mainstream home video game consoles have a lifespan of roughly five years before hardware developers unveil newer models with heavily promoted technical capabilities. This cycle began with the introduction of home gaming consoles manufactured by multiple companies. The regular release of new consoles allows hardware manufacturers to capitalize on their competition's hardware limitations. Likewise, console manufacturers and game developers can exploit their own product's limitations for their subsequent releases.

Recontextualizing older consoles as obsolete helps manufacturers effectively harness and promote the technical features of a new product. This cycle of innovation and obsolescence is most explicitly apparent in the development and promotion of console and computer hardware. According to James Newman, this "perpetual innovation" strategy encourages "the sense of the ultimate inevitable availability of the presently unattainable" (45). Of course, this sense of inevitable progress is the result of carefully constructed promotional campaigns and release patterns, as well as how the gaming industry constructs and standardizes a convenient model of innovation. When consoles are forced into obsolescence, hardware manufacturers capitalize on shortcomings that they themselves created. For instance, while a Playstation 2 game may be impressive and enjoyable in its own right, a Playstation 3 game, and its distinguishing features (graphics, character modelling, etc), allows Sony and associated developers to reframe the former as lacking in quality.

Marketing strategies centred on perpetual innovation are also more generally applicable to other digital media industries. The high-definition television market regularly introduces new technology that serves to render predecessors as obsolete. For picture quality, the 1080p resolution was considered innovative until the emergence of 4K resolution. Once 4K no longer generates high enough profits, something new will undoubtedly arrive to make further waves in the market. Likewise, Jonathan Sterne's "Out with the Trash", argues that all computer industries are involved in fast-paced innovation and planned obsolescence. Moreover, technological-based industries like video games regularly exploit the idea of innovation to encourage consumers to make a purchase, all while adhering to their respective standards of innovation.

In order to emphasize innovation, video game producers incorporate and exhibit *technoattentive* aesthetics within a game's design. Such sequences function appropriately within a gameplay context, yet they additionally function to draw attention to innovative technology and platforms (Sidhu 33). Indeed, the desired effect of technoattentive aesthetics is to showcase a console's technical power and ultimately impress players. In many cases, video game producers ease this process by standardizing innovation through technoattentive exhibition and ultimately by manipulating what players deem as innovative. The continual use and development of such aesthetic strategies helps fulfill the belief that perpetual innovation economies promote: that some qualities are more innovative than others, and that new technology is inherently better than older technology. If players learn to accept this belief, they are more likely to continually purchase the newest available console. Moreover, games featuring technoattentive aesthetics aim to both impress players, and propagate the belief that newer is better. In this way, such games actually set up and encourage their own demise. Obsolescence is as equally important as innovation.

I argue that the cutscene is one such device that regularly exhibits technoattentive aesthetic strategies. Over video game history, video game producers exploit and mobilize the device's changing technical and formal features to promote as innovative. However, as discussed in the previous chapter, the new trend towards "continuous and simultaneous" game designs encourages the use of fewer, or less explicit, cutscenes. Although cutscenes are still incorporated, they are becoming less common and less obvious. This chapter will consider how the cutscene promotes innovation throughout different historical contexts. The FMV makes way for in-game sequences, which ultimately make way for cutscenes that, in some ways, try to hide the fact that they are cutscenes relying on the system. Indeed, the player-centric logic dominating the industry is one that is framed as "innovative."

Drawing on knowledge from the previous chapter, but shifting gears somewhat to examine the technological conditions of the cutscene, the following pages will explore how video game designers and publishers have mobilized and continue to mobilize technoattentive cutscene aesthetics to support a perpetual innovation economy. Before considering in-depth how the cutscene participates in this process, it is important to further discuss perpetual innovation in a more general context and provide a brief overview of video game production.

The Video Game Industry and Perpetual Innovation

The production and release of video games involves publishers, developers, and hardware manufacturers. However, the exact business relationship between them may vary. In some cases, hardware manufacturers like Nintendo, Sony and Microsoft, also function as publishers. This typically occurs for *first-party* and *second-party* titles. *First-party* games are developed by studios under ownership of console manufacturers (Thomas 29). Such studios work exclusively for their parent company. *Second-party* studios, on the other hand, are not fully owned by console manufacturers, but they develop contracts with them to produce games exclusively for

their consoles (58). For instance, the studio Rare once developed games exclusively for Nintendo, before signing a deal with Microsoft. Both types of video game development are beneficial to hardware manufacturers by producing games exclusive to their consoles and thus reducing competition. Players do not have the option to purchase such games for other consoles.

Console manufacturers may also work with *third-party* publishers and developers. Such studios are entirely independent and do not produce games for a single console (62). Third-party developers may publish games through console manufacturers, a third-party publisher, or a parent company. Indeed, publishers like Electronic Arts and Bethesda Softworks frequently own their own development studios. Console manufacturers rarely gain exclusive rights to a video game when dealing with third-party publishers.

Regardless of their relationship, publishers, developers, and console manufacturers rely on one another to release video games and generate enough profit to continue running successfully. In order to continually achieve this goal, all facets of video game production operate according to a perpetual innovation economy. When discussing these three interrelated groups more generally, I will refer to them as "video game producers."

Although home video game consoles have existed since the 1970s, the regular introduction of upgrades encourages the idea that the medium is "new." According to Sterne, "[a computer's] 'newness' references other computers and not other media" (18). Technical obsolescence often has less to do with technology than it does with the general perception surrounding a technology (22). For instance, my Playstation 3 plays games as it should, despite having been "replaced" by the Playstation 4 in 2013. Likewise, Stephen Kline, Nick Dyer-Witherford, and Greig de Peuter discuss the "revolution strategy" preceding the release of the Sega Genesis, explaining that "Sega followed the logic of the perpetual-innovation economy [...] by producing the 16-bit 'Sega Genesis,' with microprocessors that were superior to the 8-bit NES, creating bigger animated characters, better backgrounds, faster play, and higher-quality," (129). In this case, the Sega Genesis and its accompanying promotion aggressively capitalized on the shortcomings of a major competitor. Indeed, Sterne explains that "computers and other digital hardware displace their own counterparts more than anything else" (19). Rather than compete with altogether new media, video games compete with their predecessors and contemporaries.

Through hardware and software, video game producers recontextualize available technology as obsolete and promote the idea that new technology will capitalize on their limitations. Consoles and games once considered innovative become mere stepping-stones towards superior technology. By standardizing innovation, video game producers are able to capitalize on arbitrary limitations like graphics and sound quality. After roughly five years on the market, a console can no longer be optimally framed as "innovative" and generate worthy profits. They are recontextualized as "trash," even if they are in functional condition (Sterne 26). Forced obsolescence encourages players to purchase new consoles, especially when older products are quickly discontinued.

With this cycle of innovation and obsolescence, players expect and often anticipate such updates. Drawing on Arnold Pacey, Sterne positions computers as "halfway technologies," meaning that they "sort of [work], but not in a flawless or entirely predictable fashion" (23). In other words, studios design consoles with limitations that they exploit for future hardware endeavors. According to Sterne, "computers are built with an eye towards their own replacement" (28). Through incremental rather than exponential innovation, there will always be room for improvement in console technology. The regular introduction and displacement of technology equally encourages the notion that new is inherently better.

Video game producers effectively standardize innovation in order to ease the risk involved in publishing games. By standardizing innovation and upgrading only incrementally, hardware manufacturers ensure that there is room for their future products. In other words, hardware manufacturers want to develop consoles that are not perfect. Manufacturers can thus build on such imperfections when developing new hardware. For instance, the Playstation 4 appears to be innovative, but there is inevitable room for improvement in certain areas. The Playstation 5 will likely feature superior graphics, more robust network capabilities, and perhaps features that do not yet exist. Sterne points out that "[f]rom an industry perspective, the real fear must lie in the manufacture of a computer that is finally 'good enough'" (28). Moreover, if the hypothetical Playstation 5 somehow turns out to be "good enough," Sony's future products will have less to capitalize on and thus be more difficult to produce. As subsequent sections will consider further in this chapter, both graphics and "continuous and simultaneous" game design are important examples of standardized innovation.

By standardizing innovation through components such as graphics, video game producers are able to more carefully curb creativity to adhere to rational commercial interests. As F. Ted Tschang explains, "[i]n creative industries, rationalization or the pursuit of rational interests can constrain creative practices" (989-90). Economic rationality defines what creativity is, and how experimental a game can be. Since video games are commercial products, video game studios and developers must carefully control creative endeavor in order to produce financially viable products and ensure the success of their future products. Curbing creativity helps facilitate a

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perpetual innovation economy, ensuring that innovation is always possible. In a perpetual innovation market, future products are just as important as those already available.

Standardizing innovation also encourages players to build more predictable expectations on the future of gaming technology. Players begin associating specific qualities with innovation. In other words, developers may incorporate devices and qualities that are more likely to qualify as innovative. Standardizing innovation thus ensures that players are as focused on future developments as they on already available consoles and games. This provides further security when hardware manufacturers release consoles and publishers release individual games.

Indeed, the gaming industry and related journalism encourages a heightened anticipation for soon-to-be developed technology, otherwise known as "future-gazing" (Newman 61). Although the promotion of consoles and games available on the market is undoubtedly important, promoting unreleased material often takes precedence. Console manufacturers and publishers typically begin promoting new consoles and games years preceding their release. Although a player may be content playing an available console, they are constantly bombarded with promotional information concerning its successor. This promotion draws attention to an available console's "flaws" to hopefully encourage its player to eventually purchase a newer model once it is available.

Future products receive further attention in video game journalism and criticism. Newman points out how most video game magazines and websites focus on the hype surrounding unreleased games and consoles, rather than those already available on the market (*ibid*). More than simply provide coverage on unreleased projects, websites like IGN and GameSpot help generate a strong interest in them through consistent speculation. The incremental innovation located in the video game industry generates what Robert Brookey calls, "a state of perpetual anticipation of what will be played next" (110). Moreover, along with the expectations that a perpetual innovation economy generates, the prolonged coverage surrounding future releases acts to generate a sense of storylines that players can follow. Such storylines may be as simple as whether or not a game will be released, or it may be more complex and involve other factors. Regardless of the exact context, such material often helps to increase player interest in a future release.

Indeed, there are many avenues through which video game critics and promoters fuel anticipation for the release of both consoles and individual games. Since *Metal Gear Solid 5* (Konami, 2015) was announced in 2014, multiple stories have played out, including whether long-running voice-actor David Hayter would reprise his role as Snake. Even after Keifer Sutherland was announced as Snake's new voice performer, there remains marginal speculation and anticipation surrounding Hayter's potential presence in the game (Hernandez). This works in addition to other hype-generating questions like whether *Metal Gear Solid 5* is game developer Hideo Kojima's final entry in the *Metal Gear* franchise. This is a testament to the importance of speculation, even on matters that may not actually appear in the game itself.

The speculation surrounding future consoles involves even greater stakes, which are directly tied to the previously mentioned hardware producers. One must simply consider Nintendo's recently announced NX console. Although hardware developers have yet to begin work on the console and very little is known about it, critics and players speculate and anticipate what the final product will be. As if in response to this interest, video game retailer EB Games is currently accepting pre-orders for the NX. This suggests that some players require little incentive for purchasing a new console. In the industry's perpetual innovation economy, the

purveying logic is that new technology is inherently superior technology (Newman 61). In other words, the mere existence of a new console is reason enough to purchase it.

Indeed, the process of "pre-ordering" exemplifies the general emphasis on unreleased products and the logic that newness equates with quality. Consumers actively purchase consoles and video games that are not immediately available and which they know very little about. Rather than encourage an eventual payment, video game retailers hasten the process by essentially skipping the period in-between a game's announcement and release. Retailers typically provide incentive for pre-purchasing a product by including various add-ons or collector items. By pre-ordering a game or console, players pay early and receive assurance that they will receive the product upon its release. Pre-ordering allows players to immediately act on the "new is better" mentality that perpetual innovation economies encourage.

More recently, the use of downloadable content now allows publishers to continue promoting a game long after its release. For instance, the recently released *Dying Light* (Techland, 2015) released an expansion in February 2016 featuring an additional environment to explore, a new storyline to follow, and dune-buggies as an additional means of transportation (and eliminating enemies, of course). In addition, the expansion purportedly includes higherquality graphics and new character animations. However brief, developer studios utilize downloadable content to resurge consumer interest in their games.

Technoattentive Aesthetics

In order to demonstrate a console's technical power and encourage both purchasing and pre-ordering, hardware manufacturers must mobilize the video games that it will play. By exhibiting technoattentive aesthetics, game producers encourage players to purchase a game and the console it requires. Sonny Sidhu argues that *technoattentive media exhibitionism* "actively seek[s] to redirect audience attention towards the technologies, apparatuses, interfaces, and infrastructures underlying a particular media experience" (33). Technoattentive sequences in video games appear to provide qualities that older games simply cannot. Within the gaming industry's standardization of innovation, technoattentive aesthetics and exhibition push players to build particular expectations concerning future games and consoles.

For instance, Sidhu considers the recently established *setpiece* device, as discussed in the previous chapter. The setpiece is innovative specifically because it is not a cutscene. The sequence is mostly predetermined, but the immediate gameplay requirements discourage players from noticing the oscillation going on between their actions and the system's actions. Unlike a regular in-game event however, the setpiece is orchestrated to appear especially spectacular and to include events that cannot as precisely occur in gameplay. It relies on tight-scripting and predetermined events in order to appear as such, yet its frequent use of QTEs and basic gameplay components encourages players to believe otherwise.

Form aside, the promotional benefits of setpieces are equally present for cutscenes. The main distinction is that the setpiece provides a degree of representational agency absent from more conventional cutscenes. Both Cheng and Sidhu emphasize the importance of spectacular visuals when a game necessitates representational agency (17; 23). That is, such sequences allow players to participate within distinctly spectacular events instead of simply watching them. Setpieces build on what began as the QTE and function within a "continuous and simultaneous" aesthetic. Setpieces are not cutscenes, but their existence is due in part to them. Studios use setpieces to capitalize on the shortcomings of both traditional cutscenes and the QTE in order to appear innovative. Setpieces include both QTEs, as well as limited gameplay components like

navigation. In doing so, setpieces more closely resemble traditional gameplay sequences and appear less predetermined than the average QTE. The setpiece captures the current trend of simultaneity and seamless continuity. It is an extended sequence that hides the oscillation between player and system. It is innovative for providing the spectacle of a cutscene while continuing to provide player agency slightly more complex than the QTE.

The more general cutscene however, showcases technoattentive aesthetics in a variety of ways (with potentially contrasting features) that reflects particular historical contexts. Despite working towards the goal of emphasizing photorealism, FMV and in-game cutscenes emphasize two distinct temporal patterns and two opposing relationships with gameplay. The FMV's popularity reflects a period in which gameplay graphics are limited, whereas the in-game cutscene affirms otherwise by maintaining visual coherence. The referent of gameplay allows both devices to function as a form of technoattentive exhibitionism. However, the in-game cutscene continues its hold on video game output and is a precedent to what the QTE and setpiece accomplish.

While potentially requiring no further response from the player, the in-game cutscene draws attention to itself, or a lack thereof, by maintaining graphical consistency. As previously stated, consistency is an important reason, or consequence, behind incorporating in-game cutscenes. Its visuals are not spectacular *in spite of* gameplay, but through its unity with gameplay. They are additionally significant for running in real-time and in-game (from here on, I will generally refer to both as RTIG), meaning that they are actively generated by the console. FMV visuals, on the other hand, are generated on a computer in advance and are compressed into video files. RTIG delivery is not inherently superior and only through promotional measures is it deemed more innovative. The following sections will consider the financial and promotional implications of the FMV and in-game cutscene. Although the lack of cutscenes is today considered innovative, the device's presence, in the form of either FMV or RTIG, was once a very important factor in exhibiting technoattentive aesthetics. In particular, games preceding devices like the setpiece utilized cutscenes as a means of promoting graphical quality as a potentially innovative feature.

Graphics as Innovation

Although there are other components with equal, if not more importance, graphical quality is an explicit marker of a console's capabilities and progress. A game's graphics are immediately recognizable, so much so that it is arguably the first quality that players take note of. Graphics have become the measure of a technologically advanced console. The regular advances in graphical representation reflect its standardization in the gaming industry. Hardware manufacturers regularly upgrade and promote graphics in order to sell new consoles. As Barry Atkins explains:

"[T]o ignore the consumer's and the player's desire for access to ever more sophisticated visual experience as part of (rather than distinct from) play experience is to ignore the reality of those high-budget contemporary popular video games that compete for attention on the major games consoles and are the video game equivalent of the blockbusters of the cinema multiplex" (131).

Whether or not one equates a game's quality with its representational factors, graphics must be taken into consideration, especially in light of contemporary games that continue to push the "sophisticated visual experience" even further. Additionally, since graphical innovation does not inherently require player interaction, it is a convenient component that studios can exploit in the

years preceding a game's release. Graphics explicitly address both technical and creative developments, without requiring player interaction. Less skeptical players and critics need only watch a game to appreciate how it utilizes new technology. Fencott addresses the "cinematic nature of the gameplay" that is pleasurable for both players and spectators (79). Video game graphics that resemble live-action cinema are thus pleasurable in their own right, before gameplay is even considered.

According to King and Krzywinska, "the promise of improved qualities of sound and visuals – and especially the latter – has been a major component in the engine that has driven forward developments in games platforms" (126). But what exactly does this improvement entail? As Carl Therrien explains, "[t]he self-proclaimed ideal of CGI artists is photorealism" (245). Indeed, video games featuring graphics that strive towards photorealism are typically praised as innovative. Of course, whenever we consider photorealism, historical context is significant. Game graphics from the 1990s were once on the cutting edge of achieving photorealism.

Although many discussions surrounding 3D virtual worlds involve their separation from the real world, games nonetheless aspire towards a photorealist aesthetic that mimics reality (Calleja 337). According to Therrien, the goal of many video games is to "merge the cinematographic ideal with its own interactive ambitions" (245). Indeed, they wish to combine the visuals of cinema with the interactivity and variability of gaming, yet instead of fully realising this goal, developers make incremental graphical improvements that increasingly resemble photorealistic imagery. Photorealism is a technoattentive aesthetic trait that essentially makes hardware visible. Through continual graphical advancements that more closely resemble photorealism, players are taught to associate graphics with innovation, and expect the continual improvement of graphical quality in future games. In this context, cutscenes consistently address advances towards photorealism and encourage "future-gazing" among players. The notion that increased photorealism is an inherent marker of progress is undoubtedly problematic (Newman 43). Many games, such as *Super Mario Bros*. and *Sonic the Hedgehog*, choose not to aspire towards photorealism and more closely relate to hand drawn animation, reflecting the aesthetics' position as an arbitrary standard of innovation established by the gaming industry.

King and Krzywinska argue that particular games deliver a "spectacle of realism," in which graphical quality resembling photorealism is impressive in itself (153). With every development made in graphics design, studios can capitalize on this spectacle when promoting both gaming hardware and software. Indeed, photorealism is a useful promotional tool for selling games and consoles. It is a difficult illusion to achieve and necessitates frequent hardware updates in order to increase how convincing it appears.

Likewise, film production also regularly engages with photorealism in order to deliver a "spectacle of realism" through the use of CGI. Film studies is thus a useful field from which to appropriate, since many of its ideas surrounding CGI are similar to those surrounding graphics in video game studies. However spectacular, films often integrate CGI to appear photorealistic and are typically critiqued on how it appears in relation to what the camera actually filmed. In other words, filmmakers strive to create CGI images that appear indexical. Stephen Prince introduces the concept of "perceptual realism" in order to discuss CGI within this context. Discussing the digital effects found in *Jurassic Park* (Universal, 1993), Prince explains that the film's dinosaurs "cannot be photographed as sentient creatures. Thus their logical status in *Jurassic Park* is as objects that are referentially false. They correspond to no reality the film's viewer could inhabit. And yet as depicted in the film they are perceptually realistic" (32). A heightened perceptual
realism works in tandem with a film's narrative and the audience's suspension of disbelief. Audiences are in awe when they witness *Jurassic Park*'s photorealistic CG dinosaurs, despite their awareness that such creatures cannot physically exist.

Many video games also strive towards perceptual realism, yet at an inevitably larger scale than CGI in film. Video games utilize CGI in their entirety, and do not create images that are subsequently integrated into a space filmed before a camera. Additionally, video game graphics must continue to appear photorealistic while players assert agency and progress through gameplay. There are many potential variations that game designers must take into consideration when designing a game's visuals. If a single element is less effective than others, such as lighting or collision detection, the illusion of photorealism is impossible to uphold.

Full-Motion Video and Visual Inconsistency

In video games from the mid-1990s and onward, the FMV is a common exhibitor of technoattentive aesthetics. FMV cutscenes are distinct because they are videos depicting events that do not actually occur within the main game space. They are predetermined and cannot take player decisions into consideration. However, the FMV's qualities serve the distinct purpose of showcasing high-quality graphics. For games like *Resident Evil 2*, FMV visuals strive towards photorealism. The cinematographic ideal trumps interactivity. At the same time, the shift from FMV back to gameplay reveals major graphical disparities.

In order to associate photorealism with innovation in the minds of players, the FMV explicitly addresses and emphasizes the graphical limitations of in-game devices. Much of the FMV's raison-d'être involves the player acknowledging the device's superior graphical qualities. In contrast to devices promoting the "continuous and simultaneous" aesthetic commonly found in contemporary games, the FMV's visually explicit alternating temporal pattern generates the opposite effect. This effect directly reflects the FMVs purpose of exhibiting technoattentive aesthetics in the form of photorealistic graphics. For instance, in *Resident Evil 2*, FMVs depict zombies and other monsters in greater detail than during gameplay. The FMV's graphical advantages allows developers to depict increasingly complex characters, complete with particular facial expressions and movements (Moltenbrey). When Leon encounters the Licker monster in FMV, his expression clearly depicts fear. In contrast, gameplay depicts Leon with a single, unchanging expression. The FMV may share certain functions with the more general cutscene, but it is distinct by sacrificing visual consistency to emphasise the graphics it is capable of producing. By sacrificing a "continuous and simultaneous" aesthetic for an "alternating" aesthetic, FMV asks players to compare its visuals with those in gameplay. The device provides players with a historically-specific "spectacle of realism." Returning to King and Krzywinski's above quote, the computer-generated FMV visualizes "the promise of improved qualities of sound and visuals" (126). Indeed, by standardizing innovation in the form of graphics, video game producers set up this promise and deliver it through devices like the FMV.

Through its contrasting visuals, the FMV encourages players to develop expectations and predict that future consoles will feature superior graphics. In the case of *Resident Evil 2*, the device informs players that gameplay graphics are simply not good enough. This strengthens the association between increased photorealism and innovation. By encouraging the mindset that a console does not produce sufficiently realistic visuals, the FMV functions to promote future consoles, including those yet to be announced. Graphics are suddenly an important reason for purchasing new video game technology.

Resident Evil 4, on the other hand, released six years later, does not incorporate FMVs. In less than a decade, in-game graphics improved to a standard of photorealism deemed acceptable and were less frequently treated as limitations. The FMV is no longer applicable for articulating the qualities that gameplay lacks. A dominant strategy in many contemporary video games is to include cutscenes that progress seamlessly through RTIG delivery. For instance, since its first 3D entry in 1998, the *Metal Gear Solid* franchise consistently uses in-game cutscenes and maintain a unified aesthetic.

With the rise of the in-game cutscene, FMV loses relevance and functions in opposition to the desired "continuous and simultaneous" aesthetic. However, without the FMV as a point of comparison, the in-game cutscene would lose importance. The in-game cutscene appears innovative because it accomplishes what the FMV cannot. It is the in-game cutscene's consistency with gameplay that provides the device with significance. The device demonstrates a console's proficiency since it need not rely on videos to showcase impressive visuals. Likewise, it reveals a development team's confidence in their game's RTIG graphics. In contrast, predetermined videos like FMV do not reveal what the console is capable of producing. In other words, the lack of FMV is now in itself a marker of innovation.

Real-Time and Visual Consistency

RTIG connotes sequences that are not entirely predetermined and which utilize the same graphics engine as used in gameplay. According to Therrien, "a digitally rendered image is but one of many possible actualizations that can be reformulated endlessly. But in order to claim any kind of superiority in the realm of video games, this manipulation has to occur in real time" (246). Graphical quality is important, but this importance is amplified when it runs in real-time, meaning that it is not a predetermined sequence and is produced by the console on the spot. RTIG cutscenes demonstrate the graphics that a console is actually capable of producing. Both gameplay and cutscene are visually consistent and thus aspire towards the same level of photorealism. In this way, the in-game cutscene fits within the "continuous and simultaneous" video game aesthetic. Although photorealism is still important, devices like FMV risk disturbing the seamless aesthetic that many contemporary games seek through RTIG strategies. Moreover, photorealistic graphics are currently only impressive if the console actually produces them. Impressive FMV visuals are not enough to generate excitement surrounding innovation.

The prominence of visual consistency and photorealist graphics reflects the importance placed on technology in the promotion of consoles and the games they play. Newman explains that when promoting consoles, studios often "make great play of [...] technical features, placing them front and centre in communications about console developments" (53). An effective example showcasing the resonance of RTIG in contemporary gaming culture is a trailer for Sony's *Killzone 2* showcased at the Electronic Entertainment Expo (E3) in 2005. After an impressive display featuring graphics closer to photorealism in gaming than ever seen before, a Sony representative falsely claimed that the sequence was actual in-game footage (Purchese). It does not actually show players what they will experience while playing. Despite this, the sequence is interesting for showing what the developers were aiming for (Nunneley). In particular, it shifts from cutscene to gameplay seamlessly and without cuts, much like in the contemporary games discussed in the previous chapters. However, seamless transitions require the RTIG cutscene, which the trailer ultimately does not provide, thereby placing its impressive visuals into a different context. The trailer speculates the console's capabilities, thereby

functioning more like FMV and as a form of "future-gazing." With gaming technology at its current level, impressive visuals must run in real-time using the game engine.

An overall visual consistency helps emphasize that the game engine is the single source of graphics. This is very different from early games applying the FMV, thereby showing how strategies of promoting innovation regularly change. When the FMV dominated console video games, it was partially through the introduction of CD-ROM-based consoles. The format gave developers more space to work with, allowing them to include the inherently large FMV. Similarly, the even larger DVD and Blu-ray formats allow developers to push in-game graphics further. RTIG cutscenes are not superior to those that are prerendered, they simply highlight the ways that developers mobilize emerging technologies to overcome previous limitations. However, it is important to repeat that such limitations only exist through the very studios that strive to improve on them. As stated in the previous chapter, in-game cutscenes less jarringly complicate the player's causal knowledge of gameplay. Instead of exploiting a discrepancy in graphics, RTIG cutscenes exploit congruity. A video game's graphics, paired with an overall visual consistency and a simultaneous temporal pattern, makes up the new form of spectacle that developers seek.

Some authors argue that gameplay cannot function as spectacle due to its requirement for player action rather than spectating alone. King and Krzywinska claim that "the potential pleasures of spectacle designed to attract the 'look' of the player are often interrupted [...] by the immediate requirements of gameplay" (158). However, the problem with this line of thinking is that it disregards the spectacle involved in the process of gameplay. For video games, spectacle is not an absolute. Although gameplay requirements necessitate the player's attention, it is naïve to suggest that they also interrupt the player's appreciation of the game world's representation.

Through consistent visuals, this same appreciation carries over from gameplay to cutscene. With the addition of the camera movement bridging techniques discussed in the previous chapter, smooth transitions hide the alternating temporal pattern associated with the cutscene. As with photorealism, the game industry regularly associates "continuous and simultaneous" styles with innovation. It is the new technoattentive aesthetic strategy that many games now include in order to emphasize the quality of graphics.

However, it is also necessary to consider the games that continue to reject visual consistency and instead emphasize an alternating temporal pattern. For instance, the *Final Fantasy* (Square Enix, 1987) franchise is known for regularly employing FMV rather than running sequences in-game, even after the device decreased in popularity. While the continuous and simultaneous aesthetic is prominent in contemporary video games, there are countless games that employ different technoattentive aesthetic strategies. Visual consistency and near photorealism are qualities that studios may exploit when promoting video games as innovation. However, some studios require alternative qualities to exploit. Nintendo's *Super Mario Bros.* and *Pokémon* franchises are celebrated for bright, colorful, and cartoonish visuals, but not for pushing towards photorealism. Moreover, this analysis covers a single promotional strategy among many others.

Many contemporary video games include cutscenes that adhere to a "continuous and simultaneous" aesthetic strategy in order to highlight real-time delivery, which is now an important technoattentive quality that players and critics take note of. Additionally, while games continue to incorporate traditional cutscenes during which the system takes over entirely, they also increasingly necessitate some form of response from the player. This works in tandem with consistent visuals to create a generally seamless experience. However, the differing techniques

implemented by game producers generate opposing responses from critics. Personal taste aside, such responses derive from the type of agency that such sequences necessitate. Despite their similar aims, certain strategies are deemed more acceptable than others.

The QTE is infamous for the representational agency it provides. Not only do QTEs regularly disrupt the player's gameplay expectations, the events resulting from the player's response are often lengthy and complex. In attempting to escape the alternating temporal pattern of the cutscene, the device does not give players the opportunity to respond more precisely to the situation at hand. The player's agency lasts a very limited amount of time, and consists of pressing the correct button to trigger an unpredictable event. The incorporation of too many QTEs, especially those within cutscenes, typically receives negative criticism. *Resident Evil 6* (Capcom, 2012) builds on the QTE strategy originating from *Resident Evil 4*, yet the sheer number of them continue to deter critics. Writing for *GameSpot*, Kevin VanOrd explains that "quick-time events are prominent to the point of distraction. Keep your thumbs limber and your trigger fingers ready, for you will be hammering buttons and jiggling thumbsticks ad nauseam" (VanOrd). Although the device requires action from the player, it nonetheless emphasizes an alternating temporal pattern that is extremely unpredictable.

Other techniques more effectively convey the impression that the player is in control at all times. For instance, many devices, such as the previously discussed examples from *Metal Gear Solid 4*, blur the distinctions between cutscene and gameplay device. They combine components from each and come in many forms. What they all share in common is the desire to hide the moments during which agency predominantly shifts to the system. Additionally, a continuous style helps emphasize that a sequence runs in real-time. Complex character animations, camera movements, and editing strategies occur in-game, demonstrating an attempt

to best combine the cinematic ideal with the type of agency found in gameplay. I will now reconsider some of the sequences analyzed in the previous chapter. The unique qualities of these sequences gain most of their impact when considered in relation to the "old" games that they capitalize on. For instance, in-game cutscenes are impressive by doing what the FMV cannot. Similarly, the QTE provides players with something that traditional cutscenes cannot.

As the first chapter discusses, the *Metal Gear Solid* franchise features a variety of interesting cutscene techniques providing players with different types of agency. Along with the dominant style of agency found within gameplay, the franchise frequently incorporates QTEs and PSASs. Additionally, *Metal Gear Solid 4* is especially significant through its explicit pairing of cutscene and gameplay. Despite consisting mostly of more traditional cutscenes, the game nonetheless strives towards a seamless, seemingly continuous and simultaneous aesthetic. *Metal Gear Solid 4*'s cutscene-gameplay hybrids provide players with an experience unfound in the previous *Metal Gear* games.

The simultaneous delivery of gameplay and cutscene capitalizes on the difficulties developers face when negotiating narrative and gameplay. The sequence gives the impression that gameplay action is directly affecting a presumably predetermined cutscene. As with the camera movement connecting gameplay and cutscene, such a sequence attempts to reduce any visual discrepancies between either forms. Both the microwave tunnel and the battle between Raiden and Vamp appear innovative by progressing unlike anything else in the franchise. Many critics argue that the *Metal Gear* games feature far too many cutscenes, a point on which such hybrid sequence capitalize. The sequence's impression of simultaneity along with the agency it provides effectively hides the cutscene's alternating temporal pattern that so many critics and players dislike. The flashback sequences featuring character models originally from the first *Metal Gear Solid* function comparably. Players can appreciate the technical and creative developments made within ten years by acknowledging what the original Playstation graphics lack in comparison to graphics developed for the Playstation 3. In fact, the game features a flashback dream sequence in which you play a sequence from the Playstation original, allowing players to both appreciate and scrutinize gameplay from the original *Metal Gear Solid*. When the dream ends and Snake wakes up in a cutscene, his head design literally transforms from the Playstation model to the primary Playstation 3 model. By highlighting perpetual innovation, the sequence implicitly encourages players to speculate how graphics will look after a subsequent ten years.

Metal Gear Solid 5 capitalizes on the previous game's alleged shortcomings. Promotional material reveals the use of increasingly photorealistic graphics. To better promote and build hype for the new product, Konami and Kojima Productions recontextualize *Metal Gear Solid 4* as game containing obsolete components. They do not necessarily say this outright, but it is implied through *Metal Gear Solid 5*'s graphics. Although the game's graphics are impressive in their own right, the quality upgrade is further emphasized by the visuals of its predecessors. Additionally, since the protagonist is also the playable character in *Metal Gear Solid 3* and *Metal Gear Solid: Peace Walker* (Konami, 2010), players can literally compare how he and his world are represented.

Further capitalizing on the apparent faults of previous entries in the franchise, *Metal Gear Solid 5* features fewer cutscenes, thereby relying more on "in-game events" and real-time occurrences. In other words, the game predominantly incorporates devices that are not negatively evaluated as "interruptions." Moreover, while *Metal Gear Solid 4* incorporates interesting strategies to move cutscenes beyond their traditional functions, *Metal Gear Solid 5*

further promotes the "continuous and simultaneous" strategy by, for the most part, eliminating the device altogether. Even though games continue to implement cutscenes through an alternating pattern, contemporary conceptions of both agency and innovation are clearly driving the industry towards a particular seamless style. As the examples from *Metal Gear Solid 4* reveal, the franchise's developers are searching for new ways to design cutscenes that more effectively fit within the anti-cutscene mainstream gaming landscape.

As seen with the QTE, there is ongoing cutscene experimentation, some more popular than others. With exception to the microwave tunnel sequence, *Metal Gear Solid 4*'s QTEs do not end in either victory or failure. Instead, they use representational agency for players to access additional information, thereby making many sequences more interesting for players. This is an example of how a developer may balance creativity and rational interests. In this case, *Metal Gear Solid 4* continues to include traditional cutscenes, yet it builds on the device by including additional components. Taking this a step further, *Metal Gear Solid 5* is considered innovative for featuring altogether less cutscenes and further adhering to a "continuous and simultaneous" aesthetic.

Chapter Conclusion

Developers and studios mobilize the aesthetic qualities found in cutscenes and related techniques like setpieces to further advance the perpetual innovation economy. The ways in which studios contextualize innovation in video games continues to change, and will likely lead to the development of additional techniques. Video games once promoted photorealism, a technoattentive aesthetic, through the FMV device. However, once console technology underwent further upgrades, FMV was no longer capable of appearing innovative. This is in part due to the emerging technoattentive aesthetic style: continuous and simultaneous visuals. Such a style requires devices that hide system agency and promote the notion that players have more control than in games of the past. There is continual experimentation in providing such an experience as seen through the QTE, *Metal Gear Solid 4*'s hybrid cutscenes/events, as well as the more recent setpiece. Once this experimentation reaches its pinnacle, game producers are very likely to seek additional ways of promoting innovation, perhaps through devices and technologies that do not yet exist.

The changing promotional goals of technoattentive aesthetics reflects the video game industry's overall investment in its perpetual innovation economy. The industry necessitates regular technical advances and interesting ways to articulate them in order to maximize profits. This fact equally relies on the industry's overall standardization of innovation. Many games emphasize certain qualities over others as innovative, thereby attempting to manipulate what players deem as innovative. Through the continual repetition of this process, producers ultimately facilitate in players the mindset that new is better. Moreover, players continue to associate photorealistic graphics and seamless RTIG sequences as innovative.

The rising popularity of "continuous and simultaneous" styles may very well lead to hidden or altogether nonexistent cutscenes. Hiding the system's role serves the promotional purpose of giving the impression of ultimate control. This is a direct response to the playercentric, anti-cutscene rhetoric that the previous chapter identifies. The lack of cutscenes is becoming a standard of innovation, despite the device's previously active role in propagating technoattentive aesthetics like photorealism. Until game producers find new uses for the device, the cutscene and its alternating temporal pattern has worn out its welcome in many areas of the gaming industry.

Conclusion

The primary aim of this thesis is to elevate the cutscene's status in video game scholarship. After playing *Metal Gear Solid 3* at the age of fifteen, I immediately recognized the cutscene's importance and that, like gameplay, it is a major component in a video game experience. Since the original novelty of video games is found in the medium's necessity for player agency, it is not surprising that a player-centric model of agency currently dominates the industry and related scholarship. More than this, the general apathy towards the cutscene encouraged me to research and develop ideas on a device that I so greatly admire. As this thesis demonstrates, the cutscene is a valuable tool that, upon close analysis, provides further insight into a variety of game-related topics.

Tracing the development of the cutscene in 3D console games throughout the past twenty years reveals a growing trend towards implementing "continuous and simultaneous" aesthetic styles, which functions to hide the oscillation between player and system agency. Indeed, the cutscene demonstrates the importance of system agency how it relates to the player. Within cutscenes, the system asserts agency through a variety of means that regularly change over time. For instance, unlike cutscenes in games from the mid-1990s and early 2000s, contemporary examples often transition into gameplay through fluid camera movements and consistent visuals. In this way, cutscene and gameplay both occur within a single shot. Through additional graphical consistency, the system's role is less obvious and players experience the sensation of greater control. The inherent lapse in player agency is less apparent.

This functions in stark contrast to the FMV, which explicitly relies on straight cuts to video clips resulting in discontinuous visuals. Discontinuity is not inherently negative, but it does not fit within the "continuous and simultaneous" aesthetic that more contemporary games

often involve. If a game contains FMV cutscenes, players are immediately made aware of the system's role in their output. As this thesis concludes, critics and scholars oppose the cutscene because it emphasizes the system's role in delivering information by disrupting the player's causal knowledge as established during gameplay over a prolonged period. We must not exclusively consider the degree of player agency that a game provides in order to determine its worth, for the very reason that *all* video games feature lapses in player agency. We must instead evaluate how players perceive system agency in relation to their own agency, all while considering the precise contexts in which this relationship operates.

Player agency and system agency depend on one another in order to function properly. The ways that the player and system relate varies and ultimately impacts how players perceive the experience. Cutscenes often appear disruptive by reducing player agency for a prolonged period of time, yet they still result from player action. Moreover, scholars and critics must more effectively consider the oscillation between player and system, whether considering the player's avatar, NPCs, music, graphics, etc. Some video games may appear to provide players with freewill, yet close scrutiny shows that this is not the reality. Such sequences provide player agency through limited navigation, but many other aspects are just as predetermined as in a cutscene. Games like *Half-Life* (Valve, 1998) featuring in-game events rather than cutscenes utilize one of the many available strategies in order to hide the system's influence on the player. As if interrogating this strategy, *Metal Gear Solid 4* features a number of sequences that players can experience as both cutscenes and navigable in-game events. Moreover, in terms of agency the cutscene shares more in common with gameplay than scholars acknowledge.

Gameplay devices like the PSAS, for instance, provide far more predictable responses compared to cutscenes, and players gain accurate expectations concerning what their actions will

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trigger. Unlike cutscenes, they more easily fit within a "continuous and simultaneous" design and are easily assimilated into the player's causal knowledge. This is due to the usually quick alternation between player and system agency during a PSAS. As I demonstrate however, the PSAS involves an alternating temporal pattern that operates much like the cutscene, especially those occurring in-game. Scholars rarely address this similarity due to the strong player-centric bias that dominates the field.

Chapter one of this thesis engages with the cutscene in order to better understand video game agency, which is relevant to all video game components. With exceptions like Galloway, Harrell and Zhu, future projects in video game analysis and criticism focusing on agency or interactivity must seek to better understand how the player and system operate in tandem to deliver a particular experience. Since this analysis predominantly focuses on AAA video game titles, it is up to future scholars to apply its ideas to other types of games. For instance, we can consider whether video game agency operates differently depending on the country in which a game is produced. Similarly, how does video game genre impact the relationship between player and system? Chad Habel and Ben Kooyman consider this question in their analysis of agency in survival horror video games, demonstrating how it often functions differently than games in other genres (Habel).

Additionally, there are a multitude of games like *Tetris* (Spectrum HoloByte, 1984) that are both visually and narratively abstract. They rarely feature the type of PSAS discussed in chapter one, nor do they feature extensive cutscenes. They may adhere to a "continuous and simultaneous" form, yet it inevitably differs from the narrative-based games that this thesis discusses. How exactly do such games structure player and system agency to manage the tension between them? Does this differ from the 3D narrative-based games this thesis analyzes? Is it still important for such games to hide the system's presence, or is this irrelevant? As this thesis argues, a close analysis of video game agency allows us to more precisely identify such differences and better understand how agency operates within a wide array of games. 3D narrative-based games make up a significant but nonetheless incomplete segment of the video games currently available. Indeed, this thesis does not claim to provide a theory of agency that allows us understand *every* game. Instead, it considers some concepts and tools that will hopefully aid future scholars when discussing video game agency. It articulates that when evaluating a game's agency, even a seemingly insignificant device like the cutscene has something to say.

The second aim of this thesis is to demonstrate how cutscenes participate within the gaming industry's perpetual innovation economy by exhibiting technoattentive aesthetic styles. Video game producers rely on technoattentive aesthetics in order to depict the innovative features of games and, by extension, the consoles that play them. Such aesthetic strategies change depending on historical context, but are all necessary for showcasing a console's technical power. As chapter one establishes, contemporary games give the impression that player and system are working simultaneously by hiding the alternation between the two. Moreover, game design qualities that contribute to this impression of uninterrupted player agency equates with the impression of unlimited freedom, which is something the gaming industry often elevates above other styles of gameplay. This is a relatively recent development however, as reflected by the once popular FMV device.

In the mid-1990s, the FMV was a relevant and common form of technoattentive exhibition, emphasizing the development of photorealistic graphics unattainable within

gameplay. The purpose of such a device is to demonstrate where video game technology is headed, while standardizing gaming innovation in the process. In the case of FMV, developers harness and arguably emphasize the technical power of video playback and the CD-ROM format in producing high-quality graphics. It is important to note the FMV's historical context however, since, as previously mentioned, the device no longer fits within the seamless design style that continues to gain in popularity. During the period of its prominence however, FMV was the only way to obtain the high-quality graphics that it displays.

A game's graphics often function to emphasize technical innovation. Since perpetual innovation necessitates frequent technical advances and hardware upgrades, technoattentive aesthetic strategies and devices build on the qualities of their predecessors and lead players to develop expectations concerning future releases. The gaming industry effectively standardizes updates in graphical quality as innovative. When a new console hits the market, players expect it to produce graphics superior to its predecessor. More than this, players identify graphical quality as a marker of innovation. Although it is not always the case, the measure of graphical quality often relates to photorealism.

This interest in obtaining photorealism shares much in common with the CGI utilized in film production. Although many films utilize CGI in order to represent fantastical creatures and environments lacking real-world referents, they are nonetheless designed to appear as lifelike as possible and to exist convincingly alongside elements literally filmed before a camera. Like video game graphics, CGI in film regularly undergoes upgrades in order to generate even more convincing effects. Moreover, in both video games and cinema, the use of graphics aspiring towards photorealism encourages players and viewers to further suspend disbelief and better engage with a particular work. However, photorealism alone is no longer a sufficient technoattentive aesthetic. RTIG devices emphasize a console's technical power while also adhering to a "continuous and simultaneous" aesthetic. This new style sets out to reduce or altogether eliminate the tension between player and system agency. Moreover, a recent indicator of innovation is the impression of uninterrupted player agency. Even when games continue to implement cutscenes, they often structure them to closely resemble and transition into, gameplay. As if in response to anticutscene rhetoric, such cutscenes attempt to hide their positions as cutscenes. This aesthetic strategy directly responds to the antagonism many members of the gaming community feel towards cutscenes and similar predetermined devices.

With the current rise of both virtual reality (VR) and augmented reality (AR) technologies, it is interesting to wonder through what means their games will structure player and system agency. Instead of pressing a button to trigger a video game device, both VR and AR put this control in the player's body. With both technologies, players no longer play games using television monitors, and instead utilize dual-lensed goggles. Whereas VR projects a virtual world and gives players the illusion of existing within it, AR engages with the real-world surrounding the player. Indeed, AR is especially complex in terms of agency by placing information within the player's actual environment. Players can thus walk through their homes in order to assert agency in a game involving virtual objects. Microsoft recently demonstrated the crafting/adventure game *Minecraft* (Mojang, 2011) using AR technology which, through the lens of special goggles, appeared to occur on a table. Only by literally walking around this table can players gain a new and potentially more useful perspective in the game. In this way, players *always* have agency. Indeed, the growing popularity of both AR and VR raise numerous

questions: How will this technology impact the use of devices like the cutscene and PSAS? Is it possible that they will cease to exist, or will developers find new ways of implementing them?

Such questions are equally relevant within the context of perpetual innovation and technoattentive aesthetics. Both technologies conform to and arguably further develop the "continuous and simultaneous" aesthetic that video game producers currently exploit as innovative. VR games frequently utilize first-person perspectives which, along with the absence of a television monitor, gives players the impression that they are physically present within a virtual environment. I recently participated in a demonstration of the game *Far Cry 3* (Ubisoft, 2012) using a VR headset called the Oculus Rift. Instead of using a controller to manipulate my perspective, I simply moved my head as I normally would outside of the game. Even though my movement was limited to turning my head, the experience was quite compelling. Once the thrill of "being in the game" wears off however, how will publishers further capitalize on this technology? Will the focus continue to involve photorealistic graphics, or will there be new strategies implemented?

Returning to this thesis' main object of study, how will VR and AR impact the cutscene? Will the device experience a resurgence, or will the trend toward seamless game design lead to its eventual disappearance? Games will undoubtedly continue to necessitate system agency in order to function, but how will they structure system agency in relation to a seemingly continuous level of player agency? Regardless its eventual fate, the cutscene is more than a piece of film connecting gameplay. Cutscenes are important examples of system agency that deserve more attention from scholars. Both their presence and disappearance speaks volumes concerning where the gaming industry is headed.

Works Cited

- Ahearn, Laura. "Language and Agency." Annual Review of Anthropology 30 (2001): 109-137.Web. July 2015.
- Arsenault, Dominic, and Bernard Perron. "In the Frame of the Magic Cycle: The Circle(s) of Gameplay." *The Video Game Theory Reader 2*. Ed. Bernard Perron, Mark J.P. Wolf. New York: Routledge, 2009. 109-132. Print.
- Atkins, Barry. "What Are We Really Looking At?: The Future-Orientation of Video Game Play" *Games and Culture* 1.2 (2006). Web. April 2015.
- Brookey, Robert. Hollywood Gamers: Digital Convergence in the Film and Video Game Industries. Bloomington: Indiana University Press, 2010. Print.
- Burns, Tom. "Two Conceptions of Human Agency" Agency and Structure: Reorienting Social Theory. Ed. Piotr Sztompka. Amsterdam: Gordon and Breach Science Publishers, 1994. 197-250. Print.
- Calleja, Gordon. In-Game: From Immersion to Incorporation. Cambridge: MIT Press, 2011. Print.
- Cheng, Paul. "Waiting for Something to Happen." DiGRA '07 Proceedings of the 2007 DiGRA International Conference: Situated Play 4. Tokyo: University of Tokyo, 2007. Web. September 2015.
- Chow, Kenny. Animation, Embodiment, and Digital Media: Human Experience of Technological Liveness. New York: Palgrave Macmillan, 2013. Print.
- Elkington, Trevor. "Too Many Cooks: Media Convergence and Self-Defeating Adaptations. *The Video Game Theory Reader 2*. Ed. Bernard Perron, Mark J.P. Wolf. New York: Routledge, 2009. 213-236. Print.
- Fencott, Clive, Mike Lockyer, Jo Clay, and Paul Massey. *Game Invaders: The Theory and Understanding of Computer Games*. Hoboken: John Wiley & Sons, 2012. Print.
- Forbes-Pitt, Kate. The Assumption of Agency Theory: A Realist Theory on the Production of Agency. New York: Routledge, 2011. Print.

- Galloway, Alex. *Gaming: Essays on Algorithmic Culture*. Minneapolis: University of Minnesota Press, 2006. Print.
- Habel, Chad, and Ben Kooyman. "Agency Mechanics: Gameplay Design in Survival Horror Video Games. *Digital Creativity* 25.1 (2013). 1-14. Web. November 2014.
- Harrell, D. Fox, and Jichen Zhu. "Agency Play: Dimensions of Agency for Interactive Narrative Design." Proceedings of the 2nd AAAI Spring Symposium on Intelligent Narrative Technologies Stanford, California, March 23-25, 2009. 156-162. Web. September 2014.
- Hernandez, Patricia. "Here's a Pretty Crazy Conspiracy Theory About Metal Gear Solid V" Kotaku.com. June 6 2013. Web. August 2014.
- Hornsby, Jennifer. "Agency and Actions". *Agency and Actions*. Eds. John Hyman, Helen Steward. Cambridge: Cambridge University Press, 2004. 1-24. Print.
- Jenkins, Henry. "Games, the New Lively Art." *Handbook of Computer Game Studies*. Eds. Joost Raessens and Jeffrey Goldstein. Cambridge: MIT Press, 2005. 175-192. Print.
- Juul, Jesper. Half-Real: Video Games Between Real Rules and Fictional Worlds. Michigan: MIT Press, 2005. Print.
- King, Geoff, and Tanya Krzywinska. *Tomb Raiders and Space Invaders: Videogame Forms and Contexts*. New York: Palgrave Macmillan, 2006. Print.
- Kirkpatrick, Graeme. *Aesthetic Theory and the Videogame*. New York: Palgrave Macmillan, 2011. Print.
- Kiss, Gabor Zoltan. "More than a Matter of Making Images Seen: On the Aesthetics of Visual Simulation in Games." *Film in the Post-Media Age*. Ed. Ágnes Pethő. Newcastle: Cambridge Scholars Publishing, 2012. 411-422. Print.
- Klevjer, Rune. "Cutscenes." *Routledge Companion to Video Game Studies*. Ed. Marc J.P. Wolf, Bernard Perron. New York: Routledge, 2014. 313-330. Print.
- --- "In Defense of Cutscenes." Computer Games and Digital Cultures Conference Proceedings. Tampere: Tampere University Press, 2002. Print.

- Kline, Stephen, Nick Dyer-Witheford, and Greg De Peuter. *Digital Play: The Interaction of Technology, Culture, and Marketing*. Montreal: McGill-Queen's University Press, 2003.
 Print.
- Mayra, Franz. "Getting Into the Game: Doing Multidisciplinary Game Studies." *The Video Game Theory Reader 2*. Ed. Bernard Perron, Mark J.P. Wolf. New York: Routledge, 2009. 313-330. Print.
- Moltenbrey, Karen. "Crash Course." Computer Graphics World 27.4. Web. August 2015.
- Newman, James. Best Before: Videogames, Supersession and Obsolescence. New York: Routledge, 2012. Print.
- Nitsche, Michael. Video Game Spaces: Image, Play, and Structure in 3D Game Worlds. Cambridge: MIT Press, 2008. Print.
- Nunneley, Stephany. "Guerilla Recalls the Controversy Surrounding *Killzone 2*'s E3 2005 Trailer." *VG247.com*. May 10 2011. Web. August 2015.
- Parijat, Shubhankar. "Ken Levine Does Not Like to Watch Cutscenes." *GamingBolt.com* November 18 2011. Web. September 2015.
- Parish, Jeremy. "Metal Gear Solid 4: Guns of the Patriots Review." 1Up.com. June 12 2008.Web. November 2014.
- Prince, Stephen. Digital Visual Effects in Cinema: The Seduction of Reality. New Jersey: Rutgers University Press, 2012. Print.
- Purchese, Robert. "Killzone 2 Trailer Not False." Eurogamer.net. Feburary 28 2008. Web. August 2015.
- Ryan, Marie-Laure. "Interactive Narrative." *John Hopkins Guide to Digital Media*. Baltimore: Johns Hopkins University Press, 2014. 292-297. Print.
- Sidhu, Sonny. *Poetics of the Videogame Setpiece*. MS Thesis. MIT, 2013. June 2013. Web June 2014.
- Sterne, Jonathan. "Out with the Trash: On the Future of New Technologies." *Residual Media*.Ed. Charles Acland. 16-31. Print.

- Sztompka, Piotr. "Evolving Focus on Human Agency in Contemporary Social Theory."
 Agency and Structure: Reorienting Social Theory. Ed. Piotr Sztompka. Amsterdam:
 Gordon and Breach Science Publishers, 1994. 25-62. Print.
- Tarnay, László. "Realism Reconsidered: On the Aesthetics of Visual Simulation in Games." *Film in the Post-Media Age*. Ed. Ágnes Pethő. Newcastle: Cambridge Scholars Publishing, 2012. 381-410. Print.
- Therrien, Carl. "Graphics in Video Games." *The Video Game Explosion: A History from PONG to Playstation and Beyond*. Westport: Greenwood Press, 2008. 239-250. Print.
- Thomas, David, Kyle Orland, Scott Steinberg. *The Videogame Style Guide and Reference Manual*. Victoria: Power Play Publishing, 2007. Web. November 2015.
- Tschang, Ted F. "Balancing the Tensions Between Rationalization and Creativity in the Video Game Industry." *Organization Science* 18.6 (2007): 989-1005. Web. August 2015.
- VanOrd, Kevin. "Resident Evil 6 Review" Gamespot.com. October 1 2012. Web. January 2016.
- Weise, Matthew. "How Videogames Express Ideas." *Proceedings of the 2003 DiGRA International Conference: Level Up*, 2 (2014). Web. June 2015.
- Wolf, Mark J.P. "Glossary of Video Game Terminology." The Video Game Explosion: A History from PONG to Playstation and Beyond. Westport: Greenwood Press, 2008. 311-316. Print.
- --- "Resolution." *Routledge Companion to Video Game Studies*. Ed. Marc J.P. Wolf, Bernard Perron. New York: Routledge, 2014. 49-56. Print.