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Innovations

How do Eisenstein's theories in *Film Sense* reflect on the possibilities of game development? With this in mind, and using a critical and theoretical awareness, how might this result in a newly developed language for games?

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It is generally noted that the medium of computer games exists in a state of little directed development. Although the technical development has been considerable the evolution of game content has made little use of such advancement. Game development appears to be defined by what has been achieved before rather than what might be in the future. It is possible to observe that the medium has existed without any real theoretical or critical thought that might have prompted a more informed progression. The lack of critical understanding has been made worse by the premise that games are fundamentally different and are essentially void of influences from all other communicative forms. Interactivity is what defines the diversity of games medium, but does this mean the development of games should be treated entirely differently?

Comparisons have, and should be drawn with film. A relatively new medium cinema has undoubtedly experienced informed development before reaching its current acceptance as a valid art form and means of expression. It is not merely chance that development of film has progressed from once being considered merely pornographic to its current complexity. Theoretical and academic thought have influenced film, the foundation of which are fundamentally the work of the Russian film maker Sergei Eisenstein. This prompts the thought that the medium of interactive computer games needs ‘an Eisenstein for games’. Rather than considering ‘who’ this vital theorist might be, there is the more useful and practical question of ‘what’ this individual would be required to do. What essential grounding or *modus operandi* is missing that would instigate this games revolution?

1

Sergei Eisenstein was a vital catalyst in the development and understanding of film. If this is to be used as a comparison to what critical theory is missing from games, then it is important to understand what the filmmaker's theories involved, and how his studies might have influenced the cinematic medium. It is clear from Eisenstein's definitive essay *Film Sense*, that he had a number of critics. His work was not an explanation of film or an instruction manual for those wishing to create filmic masterpieces. It was a concise grounding for the potential impact of a sequence, and how film related to all other forms of artistic expression. There was no revolutionary change preceding the publishing of *Film Sense* and many disagreed with Eisenstein's ideas, but observing the way a large proportion of film was being made at the time and comparing that with modern filmmaking practise, it is impossible to say that his influence is not considerable. In fact there are many opinions that Eisenstein's discoveries define the way film is made today. This raises the question of whether a similarly influential study on games could occur, and what questions might need to be raised to have a pivotal role in the treatment of this interactive medium.

The primary focus for *Film Sense* and for Eisenstein's work in general, was a concept known as montage.

> "…This property consisted in the fact *that two film pieces of any kind, placed together, inevitably combine into a new concept, a new quality, arising out of that juxtaposition*. This is not in the least a circumstance peculiar to the cinema, but it is a phenomenon invariably met with in all cases where we have to deal with juxtaposition of two facts, two phenomena, two objects. We are accustomed to make, almost automatically, a definite and obvious deductive generalization when any separate objects are placed before us side by side…" (Eisenstein, 1942, p.4)

Eisenstein uses the example of an image of a grave, juxtaposed with a women weeping beside it. He states that few would fail to reach the conclusion, even without prior knowledge of the situation, that the women is a widow morning the death of her husband. The nature of human assumption is fully demonstrated when he reveals that in this case, the women is in fact weeping for the loss of her lover. What is stressed is that montage goes far beyond merely attaching one bit of negative to another, and that this was only the starting point to discovering a fundamental phenomenon.

The filmmaker explains that this process of image making is a cognitive function all humans experience, a function so fundamental that it is the basis for how we visualize and memorize. The use of the word 'image' is often referred to as something less physical in representation, and more a picture built in the spectators mind by any film, piece of literature, score of music, and so on. Significant importance is placed on this process of image building by the spectator. Eisenstein observes that the desired image is never fixed it, 'arises', and the spectator follows the same creative path that the author experienced whilst creating the image. The viewer not only sees the represented elements but experiences the emergence of the desired image. The theorist shows us that it is the montage principal, as distinguished from representation, that compels the spectator to create and by 'this means, achieves that great power of inner creative excitement' (Eisenstein, 1942, p.35). He states that it is the principal of montage that distinguishes an engaging and emotional work, from one of a documentary nature going no further than informing. Eisenstein explains that montage serves as a vital enhancement to the thematic setting which may be exciting or bland, individually from how it is treated with montage.

One of the vital points that Eisenstein repeatedly notes is the way film, and all media, relate to each other. He shows a number of ways that there is a direct translation to the way all forms of art function and are created. Through the referencing of numerous poems and writings Eisenstein explains how montage appears in literature. One example is an unfinished work by Leonardo da Vinci, written to help him visualize the creation of his painting '*The Deluge'*. It involves a description of the biblical event

the great flood, presented in incredible audio-visual clarity. Eisenstein's use of this example points to how a sequence could be interpreted. Descriptions of masses of desperate animals juxtaposed with details of clenched hands, directly translate in filmic terms, to a long shot and medium close up respectively. This is only a small example of what can be directly translated from literary works to film.

Eisenstein concludes in this chapter that there is a consistency in the method of a poet writing, actors visualizing their role, or a director making film.

> "…At the base of all these methods lie in equal measure the same vitalizing human qualities and determining factors that are inherent in every human being and every vital art…" (Eisenstein, 1942, p.64)

While the purpose of this paper was not to apply Eisenstein's theories to games, in the process of developing an appreciation and understanding for his ideas it is impossible to either deny, or ignore, the concepts that are relevant. An initiating factor in the research of this area was the lack of theoretical backing and critically guided production, encouraged by the notion held by developers that games need an entirely separate treatment. This premise is surely misguided despite the new interactive nature of the games medium. Eisenstein's writing shows that filmmakers must have made similar considerations in earlier years, but he proves consistently that all forms of art commonly engage the human mind. He concludes that the process of viewing the represented elements and experiencing the emergence of the intended image is an inevitable human characteristic, one that is a part of our everyday lives. The theorist proves that all effective forms of artistic expression engage this thought process, be it audio, literature, painting or film.

Eisenstein shows that in understanding other expressive forms we can better understand film and this should also apply to games. The ideal result of this research is not to develop a set of rules for game production and development, but to further the understanding of computer games as a medium. The comparison to Sergei Eisenstein's

influence on film and the application of his theories reveals that in order to objectively comprehend game design, it must be accepted that other forms may provide influence and insight on the inner workings of computer games.

2

If the purpose of this thesis is to further the understanding of games, then the perception of narrative is a primary concern. Assuming that the narrative concerns only a story supporting the action of the game, its role is fairly insignificant, but when the structure of the medium is examined it is possible to include a great deal more under the title of narrative.

Currently games are considered to have two structural elements, one being the interactive events initiated by the player, and the other being what is considered the component supplying the narrative. These elements are often treated as quite separate depending on the implementation. The storytelling element may take any form of communication be it video, a text based conversation or simply the inclusion of another character. Regardless of how it is included, this is treated separately from the interaction of the player.

Consider for a moment that story and player interaction are not separate components but rather two distinctions that compose a narrative whole. Whether the game is linear or a multi-path interactive adventure, the occurring events tell a story. What if both the pre-scripted story and the player's interaction compile all of the narrative of a particular game? This leaves two, if slightly blurred, distinctions. The primary narrative tool would be the player's actions, their direct interactive control over the events within the game. The second distinction is the element written by the gamemakers as a pre-determined script and storyline, and the game driven narrative. This second element is often approached as though it provides the entire narrative but actually only supplies part of any games events. So this balance of game-driven and player-driven events defines the nature and construction of any one game, how these are combined rather than which takes precedence is of utmost importance. Whether a narrative is simple is inconsequential, it is the method by which it is communicated that provides insight into a particular game.

How the player-driven narrative is presented is of great influence to the core of the game. When players relay the events of their game play they are telling a story, these stories are the results of an interaction between a player and an environment, and in a similar way to the pre-scripted 'back story' it comprises the narrative.

> "…There is plot in any game, but for the most part it is created by the player himself. It is the player, not the games designer, who is the author of the game's events. The game is a tool for allowing the players to create stories…" (Rollings and Morris, 1972, p.9)

While the player-driven and game-driven narratives have been previously considered separate, there have been attempts to integrate the two. These are most often concerned with how the player can influence the story and have lead to this concept being referred to as linear or non-linear. A linear storyline is one that a player may experience through various means of communication, but may never exercise any direct control over the final result. In the extreme, these moments of game-driven story are inevitable and occur at fixed points along the path of a narrative. Conversely, a non-linear storyline would be one that allows the player to influence the scripted story elements. This can occur by making certain key choices allowing a varied path through the game as well as possibly varied endings. Clearly not every game is either linear or non-linear but rather somewhere inbetween. A non-linear game allows the pre-scripted events to be influenced by the player's actions and therefore creates a smoother integration of story generation, but an entirely linear game may still achieve the goal of a similarly unified narrative.

In reality what limits the game-driven story is how it is communicated, whether it is linear or involves multiple paths of completion. One frequently implemented technique is the use of video footage to drive the story forwards. The video or 'cutscene' tends to communicate part of the story in one exposure leaving the player to watch the events in the same way we experience cinema or television. This is a very simple

solution to the problem of conveying events, and relying on an entirely separate media it forces the player into passivity and shows that little effort has been made to use a degree of interactivity to communicate.

In *Trigger Happy,* Steven Poole raises the point that to make a significantly non-linear storyline would require a crippling amount of time and funding, to perhaps, film hours of live action film that would only be required if a player took a certain path. There have been successful executions of this type of interactive narrative although only providing a small variation of choice. Often the variation occurs in the player's actions rather than that of the predetermined storyline and it would be more efficient to rely on the player actions as an interactive editor, than filming an inflexible 'cutscene' to provide the continuing narrative. In the non-linearly structured game *Deus Ex* (see: Case Study 2, Plates 2 and 3), the player is permitted three paths through each task, although they do not accumulate to any real deviation in the conclusion of the story.

Poole refers to the game-driven narrative as a diachronic story, a back-story to supply the setting for the action. In *Trigger Happy* the player-driven element is referred to as the synchronic story, again comprising of the ongoing events of the player actions.

> "If these games can be said to have a 'story' at all, it is untranslatable – it is a purely kinetic one. The diachronic story of a videogame, however complex, is merely an excuse for the meat, the videogame action; while the synchronic story, as a story, is virtually nonexistent. This is not a criticism of videogames, not a sign of their impoverishment – it is simply pointing out that, in general, they are doing something totally different from traditional narrative forms." (Poole, 2000, p.108)

Considering that the player's actions tell a story and that these events are being experienced in an immersive and illusionary world, it is not expected that the recounted series of events should be of the quality of literature. In order for games to reach their full potential the player-driven narrative should be the primary form of storytelling. It is

the interactivity that defines computer gaming as a medium in its own right and therefore relying on some form of passive communication is inappropriate. If games make use of interactivity it must play a vital role in communication. How the player-driven narrative fuses with the game-determined narrative allows for many different solutions in the creation of a game. A good example of this player-game balance is the *Civilization* series, originated by Sid Meier (see: Case Study 1, Plates 1 and 2). The only narrative within these games is that which is written by the player, their actions constituting the entire story. There is no predetermined event other than the passage of time and almost certainly the development of civilizations. The events that occur will present a similar version of history but it will be a history written by the player, an undoubtedly memorable and often eventful story. This is an extreme use of the balance between player-game driven events and later versions did use small segments of predetermined story *(Alpha Centauri)*, but even these were influenced by the player, where and when events occur, and whom they affect. When examining a game like *Civilization*, the balance between the player-driven and game-driven events shows how a successful formula can be achieved, but also deciding a particular balance in the initial stages of game production could be the key to creating successful game play.

In almost every type of game, a player may at certain points save their progress to be restored at a later time as most games are too long to be completed in one sitting. This function unfortunately also makes it possible to reverse events that have not gone to the players liking, therefore perhaps avoiding death or other inevitable consequences. These incidents, in reality irrevocable, to some extent provide the drama of a story and their reversibility can negate the ability to tell a compelling tale. In commenting on this topic Steven Poole interviews the project director for the game *Outcast (1999)*. Oliver Masclef argues that the players are not the best story tellers, and that the primary narrative should be supplied by the designers, in the form of pre-determined game-driven story. Outcast is a prime example of the totally linear story combined with the interactive side of the game. Great importance has been placed in the predetermined events and is not only an excuse for the interaction with the game. A good example of this is when the player

reaches the end of the game and they are presented with a thirty minute finale video sequence.

> "…'A totally open world is okay,' Masclef muses, 'but if you don't have high levels of dramatic changes, everything starts to seem the same. So above the non-linear play you have a totally linear storyline.' This, he thinks, is one way to address our theoretical concerns about non-linearity (that is, reversible, interactive stories)…" (Poole quoting Masclef, 2000, p.114)

It is important to keep certain plot developments out of a players control and any gamemaker interested in communicating should find ways to control the climaxes of their piece. Developing a way to communicate via an interactive environment is more effective than resorting to other non-interactive media.

3

When the story of a game is examined outside of the interactive environment even the most in-depth of examples presents an impoverished narrative. In the general case 'the story of what the player actually does during the game would merely be a list of movements' (Poole, 2000, p.108) and the most elaborate of game-driven narratives does not compare to that of film or literature. Although this is true it might not present such a bleak view of games as it might first appear.

This paper has drawn various comparisons from other media to games but perhaps the closest parallel of all is the 'simulation ride'. These theme park orientated attractions share in common the primary function of the spectacle and sensation of a voyage. In *Visual Digital Culture*, Andrew Darley makes this comparison and discusses the nature of these simulated rides. He raises the point that the themes and characters of games 'are more often than not outlandish and bizarre' (Darley, 2000, p.162) and are both sensational and exaggerated.

> "…Computer game players and those who embark upon simulated rides do not expect to be told deep stories, let alone to be intellectually taxed or challenged. They are 'into the image' at a more corporeal and tactile level. In the first instance, the image touches them not so much in an affective, symbolic or meaningful manner, but rather more directly as a crucial element in a playful simulation that excites the senses..." (Darley, 2000, p.165)

Above all, the reason for audiences to be interested in this new medium is for the experience of immersion into an unreality, it is the interactive spectacle that is the driving force for games. So this raises the critical question; is this the beginning and the end for the computer game, is this new medium a sensational experience and nothing more?

The answer to this defining issue lies entirely with those creating these interactive experiences. Eisenstein and many other perceptive filmmakers demonstrated that new forms of expression can be developed beyond the effect of the initial spectacle. In the future, the experience of computer games could progress into three potential directions. The first and current approach is dedication to the spectacle and as Darley states, there is no requirement for depth of meaning and in many cases the fulfilment of character and plot is not a concern for the player. The second solution would implement other structures that don't focus the player's experience on superficial events, instead applying analytical values and meaningful narratives. The last and most significant alternative lies in the acceptance of the spectacle as the foremost purpose for games, but not the assumption that they cannot be shaped and developed beyond their current state.

The first films shown to the public by the Lumiére brothers were merely long continuous takes of everyday occurrences such the arrival of a train or people leaving work at the end of a day, at the end of the nineteenth century these had the ability to shock and amaze. Such films have no real purpose above being a spectacle. Later in the development of cinema, films could still be accused of containing static sequences with little variation or appropriate editing. Eisenstein recognised this and he established that it was the principles of montage that 'distinguished an emotionally exciting work from one that stops without going further than giving information or recording events.' (Eisenstein, 1942, p.35). The way in which a series of events is edited and constructed creates drama from that which would otherwise be merely documentary. This draws clear parallels to the relative infancy of the computer game medium, currently focusing largely on that of the spectacle of the experience.

Despite its unusual themes and fantastical locations interacting with games is possibly a far more life like experience than that presented by any other medium. Much like an unedited strip of film people experience their everyday existence in a more or less uncut continuum. To some extent this is how the gaming experience occurs. If drama is created through the elimination of the mundane and the sequencing of significant elements then this approach is somewhat appropriate to the computer game. Games

could be considered as a continuous spectacle in need of a form of editing to evoke emotion and imply thought. As Eisenstein states, it is entirely possible for a theme to be exciting separate from how it is handled by the film, or this case, gamemaker. Above the theme there should be a structure that restricts or edits the gaming experience to create drama out of the formerly documentary.

To some extent this has already occurred in games without the direct intention to control and accentuate the experience. It would appear that due to the interactive nature of the medium, games require a more active and engaged audience, player's response to stimulus and involvement instigates a more 'active' image building process. It is a mistaken belief that because games require a response from the audience they demand a more vigorous mental engagement. A montage sequence that requires viewers to create associations and make assumptions has a far more 'active' response than typically, a physical reaction in a game.

> "…Players are often perceived as being more active than viewers are, yet, this is only true – at least with respect to the computer game – in a vicariously 'physical' sense…such 'active participation' should not be confused with increased semantic engagement…" (Darley, 2000, p.164)

Darley presents games as an experience no greater than the sensation of a journey, but this research suggests that computer games require an editing process of their own. Games are an untapped resource for storytelling and communicating ideas, they currently share more in common with an excitingly themed documentary and the spectacular journey of a simulation ride than a well constructed piece of film or literature.

4

Eisenstein's work and his impact on filmmaking show that no medium may exist in isolation of all others. Despite the unique differences between interactive gaming and other forms of communication, the medium still involves the same image building processes that are so vital to the power of expression. It is human visualisation that results in the processing of the elements into an assembled image, this essential engagement occurs in all media. This proves that gamemakers must acknowledge that although interactivity is a unique and new element it does not exclude the insight and influence provided by other forms of art.

It is generally considered that games have a 'back story' and that the element of player interaction is a separate component. This thesis argues that the design of games should incorporate a more unified structure that treats both the player and game-driven events as one integrated narrative. Interaction should be seen as a primary narrative tool which contributes crucially to the successful formula of a game. It does not follow that all games must abandon the predetermined narrative but maintains that a unique use of the player and game-driven balance can provide innovation. It is possible that this complete reliance on interaction as the narrative in the example of the *Civilization* series is only successful due to the scale on which the game is based. The creators of the series were unlikely to have considered the relevance of narrative in its development, however by considering the narrative it provides more understanding of what contributes to a successful gaming experience. When authors create a game they should develop a narrative balance specific to the games needs, rather than being restricted to predefined genres.

Computer gaming currently has more in common with the meaningless 'simulation ride' than other more expressive media. The experience of interacting in these illusionary

worlds is unquestionably the fundamental element of gaming, but the current, primarily sensational focus of games does not exploit their full potential. In the same way filmmakers learnt to engage their audience in active mental participation, gamemakers must also develop a language by which to edit the interactive experience. It is a mistake to assume that a more physically orientated audience involvement results in the mental engagement that a well constructed, non-interactive, work of fiction induces. The development of cinema as a relatively new means of expression shows how the initial attraction of a medium originally does not necessarily constitute its ultimate communicative or expressive capacity.

The use of cinema as a reference model is of considerable value, however it is also a source of some great confusion within the field of game production. It is not the intention of this research to further the convergence of computer games and cinema, thereby avoiding the use of poorly directed film language. Gaming is not a derivative of cinema simply because it represents a continuous stream of high-definition imagery, neither does interactivity make all preceding communicative forms irrelevant when searching for influence and insight. Game authors must observe what has contributed to the evolution of other media's development, deciding the relevance of what can ultimately contribute to the writing of a new game language.

5

1. Civilization Series

The first *Civilization* game was released in 1991, it's creator, Sid Meier. Since its release there been many different versions and interpretations of the game, including improvements of the original and separately developed splinter games. While it is perhaps significant for those who are familiar with the game, the changes are effectively only slight and for the purposes of this research it is possible to refer to the whole series as one. The greatest development was from *Civilization 1* to *Civilization 2* and this became the defining version, and so all explanation is treated as post *Civilization 2*.

As discussed in the main body of this research the series is unique in its treatment of narrative in having no predetermined story whatsoever. This is a key element and contributes greatly to the successful formula for the game, and the capability to be endlessly replayable. The narrative is only described by the player's actions and as it will become apparent the events are of significant drama. It is an extreme interpretation of the player and game-driven balance that works exceptionally well, but perhaps only due to particular details the *Civilization* series involves. The scale of events which take place is nothing short of colossal and as its title shows the player is charged with the duty of commanding one of histories many civilizations. The player's must then manage everything the civilization needs such as maintaining cities, trading with other nations and defence of their own. The lowest level of interaction takes the form of commanding predominantly military units and even here one unit represents a group of people. Even the most detailed micro-management affects thousands of digital citizens and it can be therefore observed that the player's actions are nothing short of vastly significant in terms of the games events.

This grand scale continues as a theme throughout and is encouraged by the game's graphical representation. The predominant view of the world is that of a god, looking

down on events from above and although the player's role is not that of a deity, their political reign is never questioned. The player observes most of the action from an isometric view, with the virtual camera allowing scenes of the earth dotted with settlements and roaming armies. An isometric view originates from architectural drawing and design, where something is visualized in three dimensions at an approximately thirty degree angle. Significant to this rendering is that perspective is ignored, by the method of which parallel lines do not converge. The viewer sees the world from a diagonal angle, thus creating a three dimensional effect. What is important is that the predominant graphical representation is again a large scale, perhaps wide-angle, view of the landscape. In order for the player's to partake in managing their civilization a variety of secondary views are employed that generally take a window and taskbar form, with supporting imagery. This allows the viewing of details such as population status, city buildings, production, and so on. The imagery that accompanies the city view, for example, gives the impression of focusing in on details and reframing what the player sees and perhaps this could be considered a computer game version of the filmic medium-close up.

With a little observation of the components discussed so far, few will fail to realize that the time scale this game involves is also bound to be large, in fact it is potentially both infinite and variable. The game starts in the year 4000BC and continues, provided the player's civilization survives, beyond the year 2000AD. Time is handled in implementation known as 'turn based' taken directly from that of board games where the players make various moves and decisions and then finishes the turn, therefore allowing the computer controlled civilizations to have theirs. This is where the game naturally runs into the limitations of time, it cannot extend on infinitely. This raises the important and difficult question of how to end such as game. The obvious objective of the game is to win and this can be achieved by various means, although originally only via war. The player is charged to succeed by military domination, allied victory, economic supremacy, technological mastery and more. There are also other determining factors that affect the games course and its conclusion. In its unique design the player is given the chance to set many rules to the game including, how long the play will last in game time, how many

opposing civilizations will exist, how larger a world the action should occur in, and so on. In a medium were many consider it important to restrict the player in order to create the most drama and excitement, this audience participation in the game mechanics is a bold and effective step.

The ability to choose the length of time a game lasts demonstrates how the time frame can be potentially infinite. Although the game may stretch on well beyond the year 2000, in practice this isn't often desirable. As one might expect the technological development eventually slows to a halt, after all it has been created by the games designers. It also becomes apparent that the world is often over inhabited and an ending is normally inevitable. This impending conclusion is desirable as closure is often important to provide an experience of fulfilment, although in this case it can found that the exercise of playing the game provides most satisfaction rather than that of the completion.

It can be observed from the issues raised that the *Civilization* series has to a degree mastered the frequently sought after 'replayability' factor. In fact, the games rely upon the interacting audience replaying many times as every session will be significantly different although following a somewhat inevitable pattern. Something that provides part of the replayability and is essential to the game itself, are the non-player controlled civilizations. These entities have the same objectives to aspire to and methods by which to go about pursuing victory and they provide some characterization for the games. In most versions the opponents are limited in their expression, usually comprising of war, trade or alliances, and some communication, even so they are vital to the games operation and effectiveness as representation of human civilization. In one particular game of the series the various computer-controlled empires were given a distinction from one another. *Alpha Centauri* was different in that it was set on a hypothetical planet in the nearest star system of Alpha Centuria. One of the potential victories of the original *Civilization 2* was to be the first to send a spacecraft to this destination. In this version of the series each of seven civilizations represent a sociological standing, and had leaders with advantages and disadvantage to match. The player was still free to choose how to run

their society but this simple characterization generated an effective emotional response when, for example, it was discovered that ones neighbours were the religiously convicted and militarily aggressive ‘Believers’.

This series of games encompasses an incredible and unique narrative in that all of the storytelling is brought about by the action of the game itself, and not by predetermined events. *Alpha Centauri* changed this balance slightly in allowing some text presented stories, keyed from the players actions. These stories rapidly become repetitive as many games are played, but they do provide some characterization to the events. A heavy emphasis is still placed on interactivity as the narrative and this narrative balance is what makes this series of such an appropriate example to this research. The theme is also an important factor as it is something that every person can relate to – the history of human civilization, but demonstrated by the future based *Alpha Centauri* this is not the only reason why the game is so successful.

2. Deus Ex (1999)

This is a strong example of a game with a narrative balance structured for a non-linear development. The game-driven story occurs via 'cutscenes' of pre-rendered game graphics in between the interactive play. The games story is set about a military theme so the player's actions take place whilst completing missions. The video sequences depict opening or closing events of each mission, and also during the operations when the player meets various computer controlled characters. The attempt for a non-linear storyline affects both the player and game-driven narratives and each mission may be completed in three different ways depending on the inclination of each player, and skills they choose to develop. The pathways in most cases lead to the same final result but vary in approach such as proceeding with stealth, or choosing a rather more violent method. The non-linear design has an influence on the game-driven storyline in that there are a select number of points where the player's actions affect events stretching well beyond just that of the particular mission. The most significant of which involves players coming to question the motives of the organisation they serve, and possibly taking action by rebelling and killing their partner.

Deus Ex makes an ultimately limited but valiant attempt for non-linearity giving a strong feeling of control and realism despite the unavoidable knowledge that the player's actions are still restricted. It even contains the variation of three different endings that while they have little practical effect appeal to the audiences political and sociological standing. The story is complex but would no doubt appear simple outside this gaming environment, however when coupled with the visual style and atmosphere gives a strong impression of substantial content. As a somewhat prophetic narrative, the player takes the role of a genetically and mechanically enhanced agent serving a questionably motivated 'United Nations Anti-Terrorist Coalition', which operates in world racked with global terrorism. The visuals support this in adopting the popular first person perspective with the characters current tool or weapon pointing aggressively into the screen, and the aesthetic style follows with modern settings and contemporary themes and fears.

2. Half Life (1998)

Released in 1998 *Half Life* represents the first so called 'first person shooter' to entail a well constructed and relatively complex game-driven narrative. As a classic story no doubt inspired by short fiction the player assumes the role of a scientist trapped in an underground facility, with little knowledge of the events occurring around him. This particular narrative was especially well suited to the game as it involved a more realistic experience with the player often pitched against computer-controlled human opponents sent to cover up the drastically unfolding events. The players of *Half Life* can experience being caught in the crossfire of pitched battles between marauding aliens and the Special Forces, and discovering cowering scientists having locked themselves in their laboratories.

The story is delivered in an approach similar to that of the video sequence but avoids the use of poorly executed cinematography by never leaving the view of the first person perspective. Various characters encountered in the game talk with each other and the player's alias 'Gordon Freeman', thereby communicating the narrative. Other less vocal events also furthers the plot such as sightings of a mysterious observer, always just out reach of the games protagonist. *Half Life* creates a significantly intense experience by consistently maintaining the view point from that of the player's character, and even when the narrative sees the player lose interactive control this perspective is sustained. Interestingly even when 'Freeman' is spoken to directly the player's character never speaks, which avoids diluting the experience or giving too much character to someone who remains the greatest enigma of the game.

To an extent *Half Life* employs some of the ideals and techniques discussed in this research. In preserving the first person perspective throughout it holds to the notion of gaming as a continuous event, but instead of this being a disadvantage the narrative turns it into an asset. Some form of editing for excitement and climax has been employed via the story as well as the level design and there are clear moments of intense action and incredible suspense. Non-linearity would not be appropriate or benefit this game, and as

it stands, it represents an exceptional example of integrated narrative and a well edited experience.

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Plate 1

Plate 2

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Plate 3

Plate 4

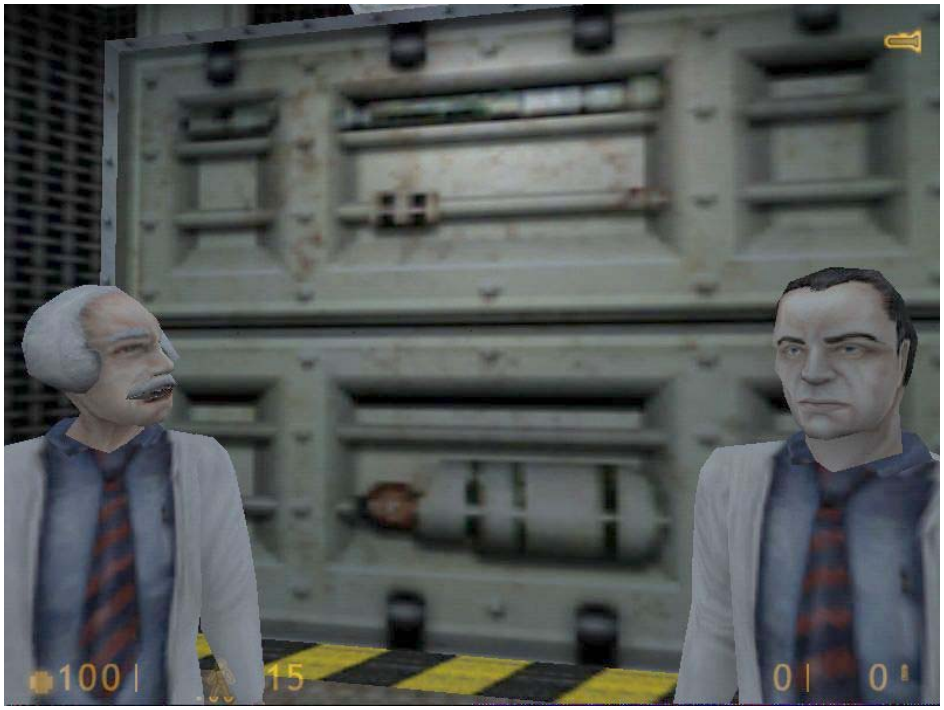

Plate 5

Plate 6

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In constructing this research, it was the intention to write in a manner that would be as accessible as possible to those unfamiliar with computer games, therefore the primary purpose for the incorporation of the case studies. Unfortunately it was impractical to include all of the information that an individual entirely unexposed would require, and with a larger project more detailed case studies and a glossary of terms would been included.

The scale of the project was potentially unending and this lead to one primary constraint on the scope of this research. The work presented discussing Sergei Eisenstein's theories concentrates as the name suggests on the first chapter of *Film Sense*, Word and Image. This broader chapter concerning the principals of montage and concepts that apply directly to games has provided all of the direct referencing of his work, and it is accepted that this excludes other valuable information Eisenstein has to offer. The relatively small project size has of course to some extent limited the range of other research but most of all the restriction is felt in the investigation of *Film Sense*.

In studying Eisenstein's work the purpose was to extrapolate what a similarly enlightened figure involved in games might propose. It was not the intention to apply Eisenstein's theories to games but in discovering the relevance the ideas held it has been an invaluable resource and contributed far more to the concepts presented than could have been expected.

With the ultimate aim of developing a game language is it unfortunate that more practical examples of how to achieve some of the ideals presented could not be included. With such a broad topic encompassing many factors is it possible only actual implementation in research and development would provide more practical solutions. It is significant that the potential avenues of research are so numerous that with extended time and continuation it would be simple to include further chapters of investigation.

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