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Narrative Structures in Computer and Video Games: Part 1: Context, Definitions, and Initial Findings

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Abstract

This essay is the first of a two-part article examining the use of narrative in computer and video games, which provides an overview and discussion of the definitions and representation of stories, plots, and narratives. A range of traditional and emerging narrative techniques are considered, including The Hero's Journey, three-act structure, the portrayal of human emotions, and character archetypes, from where an in-depth examination of interactive narrative is performed on a range of old and modern games. Initial results pertaining to the time allocated to narrative, the use of back stories, cut scenes, on-screen text, prompts, and game structure are also presented, which reveal a distinct level of uniformity of how interactive narrative is depicted in games spanning over two decades of industry development. The analysis is concluded in the second article, where further results are revealed to help uncover the precise nature of game narratives.

Keywords

narrative, storytelling, plot, computer games, video games

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Introduction

Interactive narrative has in recent years been the subject of notable attention and scrutiny for games theorists and industry professionals. Such levels of interest are perhaps not surprising considering the historical yet rapid development of interactive narrative in commercial games. Early developments were firmly in motion as early as the mid-1970s, during the industry's embryonic era, in the form of multiuser dungeons (MUDs), as popularized by titles such as Adventure and Zork, designed to allow users to engage in fantasy worlds purely via textual descriptions and conversations with other players and game characters (see Aarseth, 1997, pp. 97-103, 2004, p. 51; Murray, 1997, pp. 43-44, 74-83). Even for games where story was not the main emphasis, industry and genre defining titles such as SpaceWar, Space Invaders, Super Mario Bros, Sonic the Hedgehog, and Street Fighter released throughout the 1970s and 1980s all contained simple yet appealing storylines with which to attract the attention of their audience. Throughout the 1980s and 1990s, the gradual sophistication of gamers' expectations, as well as persistent improvements in hardware and software, enabled games developers to place even greater emphasis on the use of relatively in-depth narratives in conjunction with more advanced graphics, as demonstrated by titles such as King's Quest (1983), The Legend of Zelda (1986), and The Secret of Monkey Island (1990). Despite the technical limitations during those periods, the growing sophistication of interactive storytelling demonstrated how game content and narrative may be expanded to provide a greater sense of meaning and immersion to the tasks performed by the player, even for relatively simple forms of interaction typified in early games machines (Madej, 2003; Rollings & Adams, 2003, p. 91; Tavinor, 2005). In comparison, modern story-driven games such as Fable (2004), Final Fantasy VII–XII (1997 to present), and Shenmue (1999, 2001) combine complex narrative with sophisticated forms of interaction, often resulting in many tens (and possibly up to hundreds) of hours of gameplay. Such is the appeal and popularity of story-based games, highly elaborate and descriptive narratives are now being incorporated into genres with traditionally vacuous storylines, particularly those among the action, fighting, and shooting categories, with titles such as God of War (2005), Half-Life (2001), and Halo (2001) being some prime examples.

Yet, despite the apparent ubiquity and rising importance of narrative-based content, there remains a conspicuous uncertainty and debate surrounding the practical execution of interactive storytelling. Although some useful insights have been offered—for example, Rollings and Adams (2003, pp. 93-109) describe The Hero's Journey, and Glassner (2004) gives a detailed overview of pertinent structures for game-based storytelling—there is comparatively little understanding of the extent to which traditional (or nonelectronic) methods of storytelling are used in games or, indeed, whether the proposed techniques are even appropriate in an interactive context. Further extensive debates are also available on the role, representation, and potential direction of storytelling in emerging fields of game studies such as

narratology, ludology, interactivity, and related communities. Here, the wealth of literature includes, among numerous others, the examination of general storytelling via electronic media by Aarseth (1997), Murray (1997), and Ryan (2001, 2006), Atkins's (2003) reflection on a selection of popular games, insight and critique of Juul (1999, 2005) and Sheldon (2004) into narrative techniques, and the collection of essays of Wardrip-Fruin and Harrigan (2004) on interactive storytelling. However, useful as these are on a discursive and theoretical standpoint, large research gaps remain in terms of the application of formal and established techniques for narrative analyses, particularly those which provide in-depth schematic and quantitative analyses of narratives residing in popular games.

Research gaps aside, interactive narrative remains a highly intriguing and elusive field. One of the most fascinating relates to the conflict between narrative and interaction. Having gathered a degree of consensus in the literature, the notion that narrative is incompatible, at least in large part, with interactivity (Barr, Marsen, & Noble, 2005; Juul, 1999, 2001; Mallon & Webb, 2005, Polaine, 2005) represents a sizable area of contention in the games development community. Here, it is argued that narrative, by its very nature, is passive and prescriptive, while interactivity, is not. Mixing the two leads to a balancing act that Costikyan (2000, pp. 44-53) and Glassner (2004, 17-19) aptly describe as being between control and conflict—that is, the degree of control over the story given to the audience (or player), which can stimulate an interesting, compelling, or dramatic storyline. In theory, the greater the control, the greater the player's level of interaction and perceived influence over the game's story, while the lesser the control, the lower the perceived influence. However, in raising the level of control and thus allowing players to manipulate the story as they see fit, there comes the added threat of a watered down, uninteresting version of what might otherwise be an exciting story (Glassner, 2004, p. 18; Murray, 1997, p. 191; Yescombe, 2006).

The principal aim of this two-part article is to provide a complementary analysis to existing theoretical studies into interactive storytelling by investigating how narrative has been used across a range of old (typically, games from the 1980s and early 1990s) and modern computer and video games. The results seek to offer a schematic, chronological breakdown of narrative junctures residing in interactive games such that a more informed and thorough reflection may be obtained into the characteristics of interactive storytelling. The findings can be used by both game theorists and designers to gain a more comprehensive understanding of the practical construction of interactive narratives as well as draw attention to techniques worthy of further examination. The next section defines and discusses the nature of stories, plots, and narratives, followed by an outline of the prominent methods commonly used for narrative delivery in interactive games.

Story, Plot, and Narrative

Before embarking on a discussion of the common methods used for interactive storytelling, it is important to draw a clear distinction between stories, plots, and

narratives, especially as these terms are often used interchangeably by those generally referring to "stories" in games. For this study, the definitions provided by Abbott (2002), Cohan and Shires (1988), and Heath (1996) will be used. These definitions closely corroborate with those provided by Cobley (2001, pp. 4-6, 16-17), Dansky (2007, pp. 1-5), Juul (1999, p. 29), as well as the extensive discussions provided by Herman (2007, pp. 22-33) and Ryan (2006, pp. 6-7). A story is defined as:

> . . . a sequence of events involving entities.
>
> A story is bound by the laws of time; it goes in one direction, starting at the beginning, moving through the middle, and arriving at the end . . . the only time involved is the time it takes to read [the story], and the only order is that of the structure of the essay (Abbott, 2002, p. 195).

Linked closely to this is the plot that is distinct from story and narrative. Aristotle defines this as:

> . . . the organisation of events. The events, i.e., the plot, are what tragedy [serious dramas] is there for, and that is the most important thing of all (Heath, 1996, p. 11).

Cobley (2001, pp. 4-6) corroborates with this but extends the definition to include a more explicit link between events:

> The chain of causation which dictates that these events [in the story] are somehow linked and that they are therefore to be depicted in relation to each other.

While a narrative is defined as:

> . . . the representation of an event or a series of events.
>
> . . . when we read a narrative, we are aware of, on the one hand, the time of reading and the order in which things are read, and on the other hand, the time the story events are supposed to take and the order in which they are supposed to occur (Abbott, 2002, pp. 13-14).

And similarly:

> A narrative recounts a story, a series of events in a temporal sequence. Narratives give expression to feelings, but within the framework of a story and its telling (Cohan & Shires, 1988, p. 1).

Based on these definitions, narrative may be regarded as more malleable than story or plot. Although the element of time and the sequence of events are tightly bound by the structure of a story, and the causation and links between the events are encapsulated in the plot, the narrative determines how these events are expressed, the order in which they are presented, the duration of each event, and the frequency of each event. These defining characteristics of narrative have, in turn, been referred to as

the narrative discourse (see Bridgeman [2007] for a more in-depth discussion) and may vary according to the mode through which a story is being told: text, film, games, and so on. Hence, the story is the information about an event or sequence of events (typically linear), the plot being the causation and links between events, whereas the narrative is the unique way in which story is being presented to the audience.

Taking these key distinctions in the context of an interactive game, the beginning of a story for an action game may be of the form:

> Captain X is on a mission to save planet Earth from invading aliens. He arrives at the docking bay and picks up weapons before heading to the battlefield.

Here, Captain X is the catalyst of the plot, with the event of saving the planet being initiated by invading aliens. The game's narrative encapsulates the methods used to deliver the necessary scenes, the order of the scenes, the time taken for the events to unfold (duration), and the frequency with which these scenes occur, which may be depicted as:

1. Game start: The player is presented with a video sequence (or cut scene—discussed below) showing the invasion of Earth by aliens. The scene focuses on the destruction of Earth and the suffering of humans inflicted by the aliens. Captain X can be seen entering the docking bay. He appears to be very calm. Scene duration: 5 min.
2. Gameplay—the player is given control of Captain X and must select weapons and practice using them in a training room. (Here, the narrative shifts from being prescriptive to interactive.) Gameplay duration: approximately 10 min.
3. The player is presented with another video sequence after the practice session to show Captain X leaving the weapons room and heading toward the battlefield. The Captain appears determined and ready for battle. Scene duration: 10 min.

Thus, in total, the narrative that incorporates the beginning of the original story outline is approximately 25 min containing two video sequences and one gameplay section.

Using the above definitions in this example, the narrative sequence gives the player a clear indication of the timing of events (i.e., the invasion, followed by the entrance of Captain X, control of X via gameplay, followed by a scene of X walking toward the battle), their approximate length, and the expression of feelings or emotions presented via cut scenes (destruction, suffering, calm, determination, etc.). These definitions are of particular importance during the analysis throughout this and the following article, because in the context of interactive games, narrative goes hand-in-hand with the passing of game time (largely dictated by the quantity, type, and duration of player interactions) and how key events are triggered (or not as the case may be) during game progression. Arguably, the narrative represents the most complex element in interactive storytelling.

The following section explores some of the most common methods used for the delivery of stories and narratives for interactive games. For concision, terminology and key concepts will be presented in the next section, while further details on their application and analysis are given in the Methods section.

Narrative Techniques in Computer and Video Games

Several techniques are commonly used to strike a balance between prescribed narrative and interaction. One of the most basic methods is the background story, which provides a simple description of the game's setting in terms of its environment, key characters, and main objectives (Myers, 2003; Rollings & Adams, 2003, p. 92). Back stories are usually presented just before a game begins or seen written on the back of game packaging or in its instruction manual to capture a player's attention as well as set the scene for the entire game. However, it has been contended that simple games do not require extensive back stories and their use merely provides a basic method of contextualizing a game's objective (Myers, 2003; Rollings & Adams, 2003, p. 92). Myers (2003) further argues that despite the well-established role of back stories, the variability of their effectiveness when used in interactive games suggests that the game medium remains vastly different to other, more traditional forms of storytelling such as books, film, and theatre.

In contrast, perhaps the most common method for narration in interactive games is the cut scene, defined by Glassner (2004, p. 285) as:

> . . . a pre-rendered piece of video . . . sometimes rendered in real time using the computer or console's hardware. During playback, the player's opportunity for interaction is suspended, and he becomes a passive audience member for the duration of the scene.

While older games from the 1970s, 1980s, and early 1990s may resort to delivery via simple on-screen text, modern games platforms can comfortably support the delivery of cinematic/full-motion video (FMV) sequences. Cut scenes are frequently observed in more complex story-based games to complement the back story, and as extensively documented by Glassner (2004, pp. 285-288) and Klevjer (2002), are gradually becoming the standard method of narration in modern games. Cut scenes are used to serve three functions: to explain the story or events taking place in the game, initiate a transition in story or gameplay, or show the consequences of a player's actions (Glassner, 2004, p. 285). However, despite the apparent necessity and ubiquity of cut scenes, they are often criticized as being a passive mode of narrative, which in some cases can disrupt and antagonize the interactive experience when sown into a game's core fabric of interactivity (Falstein, 2005, pp. 92-95; Glassner, 2004, pp. 286-288; O'Luanaigh, 2006). Yet, in view of these criticisms, Sheldon (2004, p. 183) highlights numerous salient reasons to justify the use of cut scenes, including their natural link with film conventions, the relative ease with which they

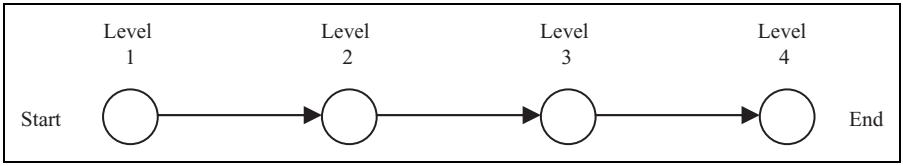

Figure 1. Linear game structure.

may be incorporated into gameplay, and their ability to offer cost savings during the game development process.

In view of the numerous problems concerning the use of back stories and cut scenes, more sophisticated techniques are gradually being developed. One important avenue is the evolution of game structures. Where some traditional games may be presented in a linear structure (see Falstein, 2005, pp. 82-86; Meadows, 2003, p. 64; Miller, 2004, pp. 126-127), typically in the form of levels positioned sequentially (see Figure 1), games that purport to contain more advanced narratives strive toward nonlinear or branching structures, as shown in Figure 2 (see Ryan 2006, pp. 100-107) for an overview of variations). The principal advantage offered by a nonlinear approach is greater freedom, where the player is given the impression that a greater degree of control may be exerted over the progression of the game's story than what is actually possible in terms of interaction (corroborating with the point mentioned earlier; Falstein, 2005, pp. 82-92; Glassner, 2004, pp. 239-249; Miller, 2004, pp. 124-125). Indeed, the use of more elaborate, interactive cut scenes is one example of this structure, where the player might be offered a choice before, after, or during a cut scene to determine what happens next. Branching structures thus represent a significant contribution to interactive storytelling by enhancing players' opportunity to influence the pace of in-game events and offering the ability to alter the order in which certain events may be triggered. However, as with the above discussion, although branching techniques offer an alternative form of storytelling and currently represent the dominant approach toward game design, they remain inadequate to both story writers and gamers. Limitations concerning the sheer quantity of content that needs to be produced for each possible player decision, alternative plot lines, and the difficulty of maintaining a coherent and interesting story are all exacerbated by branching (Glassner, 2004, pp. 239-249; Meadows, 2003, p. 66; Ryan, 2006, p. 107). Hence, although linear and branching structures may have fulfilled audiences' expectations a decade or so ago (i.e., in the dawn of 32-, 64-, and 128-bit platforms during the mid to late 1990s such as Sony's PlayStation and PlayStation2, Nintendo's N-64 and Gamecube, and Microsoft's Xbox), the rising power and capability of the current and future generations of gaming hardware require extra efforts to be directed toward more dynamic, natural, and convincing game narrative.

The limitations of established game structures thus pave the way for emerging techniques. O'Luanaigh (2006) emphasizes the need for human emotions to play a more prominent role in games, especially in linking game characters' emotions

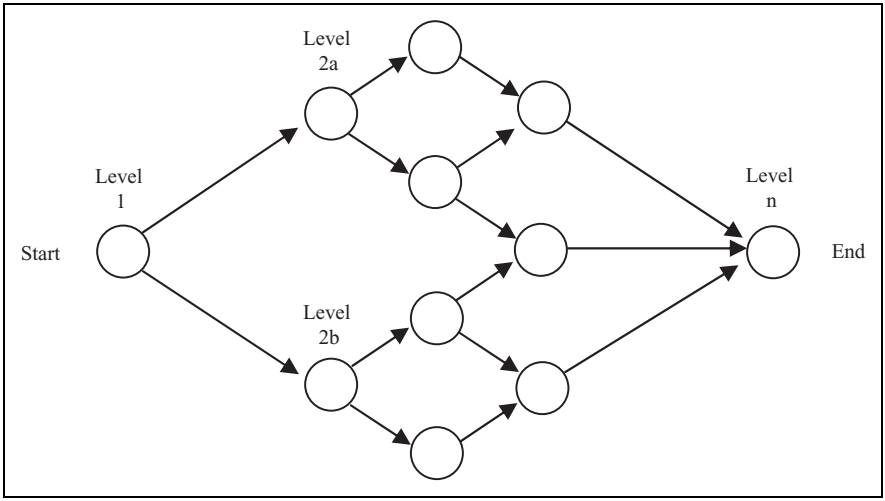

Figure 2. Nonlinear/branching game structure.

to the specific requirements of game levels in terms of ambience, lighting, animation, and audio techniques. Atkins (2003, p. 55-84) provides an in-depth examination of the audio and environmental techniques used in Half-Life to create a more dynamic and believable experience, whereas similar efforts involving the use of advanced artificial intelligence to help promote more believable game characters have been made by the work of Lugrin and Cavazza (2006) and Spierling, Grasbon, Braun, and Iurgel (2002). Thus, emotions play a vital role in the development of more convincing and richer narratives, and although it is beyond the confines of this article to provide an in-depth examination of this subject, some pertinent issues do bear special relevance. In this context, the categorization of basic and mixed emotions by Plutchik (1980, p. 91, 157-172) offers an established and practical insight into human emotions and behavior. Where appropriate, the data gathered in this article will be analyzed in accordance with primary, secondary, and tertiary dyads that represent pairs of basic emotions (Plutchik, 1980, pp. 161-165)—an explanation of the specific methods used in this study is given below. In essence, tertiary dyads consist of two basic emotions, which possess a greater degree of separation (such as disgust and joy, which gives rise to morbidness) as compared to other dyads that contain more complementary emotions (such as sadness and disgust to give misery), and are thus less likely to be observed. Using this interpretation, the chosen games are evaluated to determine the nature, complexity, and patterns of their depiction in the narrative. Further insights into the type of emotions, which should be evoked by interesting stories can be found in the work of Aristotle (Heath, 1996, pp. 20-21) and Ryan (2001, pp. 148-157), where it is stated that the feelings of pity and fear ought to play prominent roles. Aristotle provides further guidelines on the use of these two

emotions, with particular attention on a character's change from good to bad fortune or vice versa (Heath, 1996, pp. 20-23). These principles will be taken into account during the analysis to explore the types and complexities of emotion portrayed in games and whether any significant gaps exist with respect to their implementation.

The other salient avenue for consideration is the use of established narrative structures. As mentioned at the start of this article, the composition of these structures and extent to which they are applied in interactive games remains relatively unknown. Currently, only a sparse collection of methods have been proposed and used by games developers to help construct and implement interesting, interactive stories. One of the most prominent is the monomyth (also known as The Hero with a Thousand Faces): a structure originally devised by Campbell (1988) and further modified by Vogler (2007) in The Writer's Journey (commonly referred to as The Hero's Journey). The technique has recently been contextualized for use in interactive games by Glassner (2004, pp. 59-66) and Rollings and Adams (2003, pp. 93-109) and in educational material by Dickey (2006). The tool thus demonstrates a degree of versatility as a means of composing game narrative. The Hero's Journey details 12 key stages, as shown in Table 1, which play significant and powerful roles in the evolution of interesting or compelling stories and hence contribute toward a better understanding of how such stories might be constructed. In addition, both Campbell (1988) and Vogler (2007) expand on The Hero's Journey by outlining extensions to Jung's (1983, 1991) archetypes to describe important recurring characters in stories. These include the hero, mentor, allies, shapeshifter, herald, and shadow, all of which will be taken into account during the final analysis.

Closely linked to The Hero's Journey is the well-known three-act structure described by Aristotle which, in the context of poetry and drama, comprises of a beginning, middle, and an end (or denouement; Heath, 1996, p. 13). More in-depth characteristics of this structure include the presence of three elements in interesting plots: reversal of fortune, recognition (i.e., the protagonist's change from ignorance to knowledge), and suffering (Heath, 1996, p. 19); and four key distinctions of story types (Heath, 1996, p. 18, 29-30; Tierno, 2002, pp. 41-45):

1. complex or simple—complex refers to a reversal of fortune or recognition; simple to a change in the hero's fortune without a reversal of fortune or discovery;
2. tragedy of suffering—emphasizes physical or mental suffering;
3. tragedy of character—emphasizes characters and personality traits; and
4. spectacle—emphasizes effects of the visuals such as costumes, scenery, and actors (particularly relevant in films).

Aristotle's analyses were subsequently adapted by, among others, Tierno (2002) for screenwriting and Glassner (2004) and Barros and Musse (2005) for interactive storytelling, which makes it highly pertinent for the analysis conducted in this investigation. As will be presented in the findings in the following article, numerous evaluations are made according to these principles of narrative structure and character

Table 1. Twelve Stages of The Hero's Journey, Adapted from Rollings and Adams (2003, pp. 93-109) and Vogler (2007, pp. 6-20)

Stage	Description
1. The ordinary world	The player first meets the hero and is introduced to the hero's background, typically via the back story
2. The call to adventure	A hint that the hero will be leaving the ordinary world to begin a new adventure. This stage acts as a catalyst that triggers off the main storyline
3. The refusal of the call	In the traditional structure of the monomyth, the hero will turn down the initial offer to leave the ordinary world to begin a quest, usually as a moment of doubt or uncertainty
4. The meeting with the mentor	When the hero decides to take on the quest, the mentor provides her with the information needed to choose what action to take. Mentors can be anything which provides information—a bearded old man, hub, robot, library, past experiences, and so on
5. Crossing the first threshold	The hero crosses from the safety of the ordinary world to a new, dangerous, and unknown world of the quest
6. Tests, allies, and enemies	This phase is usually the largest part of the game story, as the player is introduced to all the major characters
7. The approach to the innermost cave	This is where the hero finds the reward she seeks—such as gaining the essential skill, weapon, or mastery of everything she has come across up to this point. Typically, this is situated toward the end of the game. The main objective of this part of the story is to prepare the hero for the final battle
8. The ordeal	This is where the hero faces the final battle with her nemesis or "final boss." The nemesis can appear as either a physical (person or object) or nonphysical (time, intensity, or difficulty) entity
9. The reward	Many games end at this point, when the enemy is defeated and the reward is usually an ending cut scene detailing what happens to the hero after her triumph
10. The road back	Some games will allow the player to return to the ordinary world after the reward but it may not be possible for the hero to integrate successfully into the old world
11. The resurrection	This part of the story addresses any unanswered questions, such as the consequences from the quest, potential conflicts that may arise for future sequels, or any tests the hero must face before the end. It can also be in the form of a final plot twist, as something unexpected by the audience
12. The Return with the reward	This is the last stage of the story, where the hero finally returns to the ordinary world and sees the benefits of her reward. The hero can compare her life before and after the quest to see how things have changed

development. Special attention will be placed on the presence or otherwise of these proposed techniques and the idiosyncrasies of their implementation in interactive games.

Also intriguing are the story structures described by McKee (1999), which offer a complementary reflection on the characteristics of interactive narratives in addition to The Hero's Journey and the three-act structure. Here, stories consist of three dominant classes: archplot, miniplot, and antiplot. Although not mutually exclusive, each class contains certain characteristics that may be used to gain an understanding of narrative style and content. The archplot encapsulates a classical structure, which includes the principal characteristics of causality, closed endings, linear time, a single and active protagonist, and a consistent reality. The archplot is considered the most prominent structure as it demonstrates remarkable prevalence in successful stories spanning the history of modern cinema (McKee, 1999, p. 46). In contrast, the miniplot focuses on traits such as open endings, internal conflicts of the characters, multiple and passive protagonists, whereas the antiplot emphasizes scenarios of coincidence, nonlinear time, and inconsistent realities (see McKee, 1999, pp. 44-57).

The approach offered by Cohan and Shires (1988) also represents a significant additional contribution for the schematic analysis conducted in this article. It is proposed that events in a story may be classed as:

- kernels: these are often referred to as the ''skeleton'' of a story and are events that raise the possibility of succeeding or alternative events. Kernels initiate, increase, or conclude an uncertainty and hence advance or outline a sequence of transformations in the story. Kernels cannot be removed, reordered, or replaced without significantly changing the sequence of events (Cohan & Shires, 1988, pp. 54-55); and/or
- satellites: these facilitate kernels by amplifying or filling-in the outline of a sequence of events by maintaining, retarding, or prolonging the kernel events. Satellites can be omitted, reordered, or replaced by other satellites without revising the sequence of events (Cohan & Shires, 1988, pp. 54-55).

Using this distinction, events in the narrative may be collated and analyzed using micro and macro structures (Cohan & Shires, 1988, pp. 60-64). Here, kernel and satellite events can be viewed in terms of their positioning and temporality to provide a more thorough understanding of the structure of complex narratives, such as the role of satellites in reinforcing or giving extra emphasis to key events in a story. As with the above methods, this particular approach will be taken into account during the final analysis.

In summary of the above discussion, the common techniques for narrative delivery found in interactive games are thusly:

- back stories;
- cut scenes (including interactive cut scenes);

- game structures, for example, linear and branching;
- the portrayal of emotion and/or reactive environments; and
- narrative structures: for example, monomyth, three-act plot, archetypes, kernels, satellites.

At present, although a healthy quantity of literature is available on the various methods of narrative delivery outlined above, there is little or no evidence that these approaches have been collectively applied in a formal analysis of interactive games. Despite some brief research by Osterberg (2006) exploring the use of cut scenes and textual sequences in games, a paucity of in-depth research has been done to evaluate the extent to which game narratives adhere to the above or other, perhaps more appropriate, structures. Little knowledge is also available on the idiosyncrasies through which various techniques are combined and presented (schematically and chronologically—despite both elements being central to the definition of story, plot, and narrative explained earlier) in interactive games. Indeed, Jenkins (2004) has aptly drawn attention to the fact that games designers can modify narrative through subtle changes in the interaction using a mixture of techniques. Therefore, the main challenge in this article is to obtain a deeper understanding of the subtle forms of narrative and the techniques used by games developers such that a clearer link between theory and practice may be established. The next section outlines the research methods used in this study.

Methods

As described in the introduction, the aim of this two-part article is to investigate the narrative techniques used across a range of old and modern computer and video games. Taking the above discussion into account, the analysis of these games will be made with two principal objectives. First, to evaluate the presence (or otherwise) of the above narrative methods and how they are implemented in conjunction with interactivity; second, to compare games from different generations to help determine whether narrative techniques have significantly evolved over an extended time period. However, in deciding appropriate titles for this study, the greatest difficulties facing the selection process are the length of time required to analyze each game (a point illustrated in the work of Atkins [2003], Juul [1999], and Osterberg [2006] among others, where each study, despite their extensive nature, examines only around four games in detail) and the sheer quantity of games, which could be selected. Self-evidently, without resource limitations, the ideal scenario would be to incorporate a large number of titles with an emphasis on narrative (say, to satisfy the expectations of quantitative surveys, 100 games or more), but this option was not possible within the time and resource limitations of this study. Hence, only a comparatively modest selection could be included here.

With respect to the vast range of available games, the decision was made to focus on a specific game genre. According to the results of a study conducted by Ip and

Jacobs (2006), the most populated genre by some margin is action, which incorporates numerous other subgenres such as action–adventure, first-person shooters, role-playing, and strategic action titles, all of which usually contain sizable narrative elements within their gameplay. As an indicator of the popularity of action games (with all its subsets), the genre represented 45% of all games released in the 4 years from 2000 to 2003, whereas the remaining 55% were spread between racing, sports, music, and family titles (Ip & Jacobs, 2006), which, in contrast, typically contain fewer or much simpler forms of prescribed narrative, if any at all. For this reason, the action genre (including the various principal subcategories) was chosen as the subject of investigation. The following stipulations were made to ensure that the correct types of game were chosen for this study.

1. So as to enable elements of game design and narrative techniques to be compared between old and modern titles, a range of games were selected from the current and previous generations of commercial games platforms, including the PC, Sony PlayStation and PlayStation2, Microsoft Xbox and Xbox 360, Sega Dreamcast, Nintendo Famicom (also known as the Nintendo Entertainment System—NES), and Sega Megadrive (or Genesis).
2. The chosen games will be comprised of significant narrative elements, that is, the game's objectives and/or progression are based largely around a story or a game, which has been acknowledged to have made significant contributions to game narrative. In some games, the player's progression in the game would be difficult if not impossible without knowledge of the story. The gathering of relevant information on various games is explained below.
3. No requirement was placed on subgenres, hence any game could theoretically be chosen, regardless of the type of interaction or story presented in it. However, it is expected that within the broad category of the action genre, adventure, action–adventure, and role-playing games (RPGs) are most likely to be chosen as a reflection of the story-based nature of such titles.

With respect to Points 1 and 2, a broad range of gaming-related sources were consulted to help identify appropriate games. Potential games were first identified through the U.K. trade publication The Market for Computer and Video Games (MCV) and game retail outlets such as Game and Gamestation for information such as sales charts and the general popularity, availability, and appropriateness. Further details about suitable games were then retrieved from the relevant literature and game reviews including EDGE magazine and the online game review database Game Rankings (see www.gamerankings.com). From this information, the 10 games specified in Table 2 were chosen for this study. Hence, although the sample size is not as extensive as what might be expected for traditional surveys, it is nevertheless more than twice the size of numerous existing studies mentioned above. In addition, it should be noted that this sample size adheres to those expected for in-depth case studies (Creswell, 2007, pp. 126-128; Denscombe, 2007, p. 30; Yin, 2003,

Table 2. Games Analyzed in This Study in Order of Release Date

Game	Principal Genres	Platform	Developer	Publisher	U.K. Age Rating	Year of Original Release (United Kingdom)
The Legend of Zelda	Action adventure; RPG	Nintendo Famicom (NES); Gameboy Advance	Nintendo	Nintendo	E (Everyone)[a]	1986
The Secret of Monkey Island	Adventure; puzzle	Amiga, Atari ST, Apple Mac, PC	Lucasfilm Games	Lucasfilm Games	No rating	1990
Flashback	Platform; action adventure; 2D shooting	Amiga; Super Famicom; Megadrive	Delphine Software	US Gold	11+[a]	1992
Shenmue 2	Action adventure; RPG; beat-em-up	Dreamcast; Xbox	Sega, AM2 division	Sega	11+[a]	2001
Resident Evil Code Veronica X	Action adventure; third-person shooter	PlayStation 2	Capcom	Capcom	15[b]	2001
Final Fantasy X	RPG; adventure; strategy	PlayStation 2	SquareSoft	Sony Computer Entertainment	11+[a]	2002
Half-Life 2	First-person shooter; action adventure	PC; Xbox	Valve	Valve	15[b]	2004
Fable	Action adventure; RPG	Xbox	Lionhead Studios; Microsoft Game Studios	Microsoft Game Studios	16+[a]	2004
The Godfather	Action adventure; RPG	Xbox 360; PlayStation 2; Nintendo Wii	EA	EA	18[b]	2006
Halo 3	First-person shooter; action adventure	Xbox 360	Bungie; Microsoft Game Studios	Microsoft Game Studios	15[b]	2007

Note: PEGI = Pan European Game Information; BBFC = British Board of Film Classification
[a] PEGI or recommended age ratings.
[b] BBFC rating (typically for games containing adult and/or violent themes).

pp. 48-49) and hence can be considered appropriate for obtaining meaningful results. According to the reviews by professional game writers (see, e.g., reviews from Game Rankings, GameSpot, and EDGE), the chosen games possess a high degree of quality, views of which are shared to a large extent by the games' popularity and commercial success at the time of their original release. The content of the chosen titles not only evidences sizable narrative-driven gameplay but contains relatively mature themes (as reflected by the presence of age ratings in most of the titles) and represents significant contributions among their respective action genres and/or franchises, as acknowledged by the relevant game reviews from the above sources. As can also be seen in Table 2, the games span several action genres (ranging from a point-and-click adventure of The Secret of Monkey Island to the first-person shooting of Half-Life 2) and decades which will provide a useful point of comparison during the final analysis.

The analyses were made using the following procedure:

1. All games were played from beginning to end by a single player (the same for each game), during which all narrative (method of story delivery such as cut scenes, back stories, and verbal prompts); story outline, including the presence of key characters and details of each event, duration of scenes, and so on; and gameplay sections were recorded on a transcription. All forms of narrative were observed from beginning to end, that is, no scenes were skipped or cut even should the option be available in the game. Additional aids such as a stopwatch and video recordings were made to support the data collection for the duration and reviewing of narrative scenes.
2. The sole player responsible for the playing of the games and transcription had never previously played the chosen games before this study. The player is male, and has been a regular gamer for more than 20 years, and hence although he has no direct experience with the chosen titles, he has experience with general forms of interaction and gaming conventions depicted in similar games within the action genre. Thusly, the playing times recorded for the player are likely to be representative of an average gamer, who neither has too little experience (and therefore likely to spend more time familiarizing to controls, interface, etc.) nor too much experience in games such that they can be completed too slowly or rapidly. Although the recorded playing times are of course subject to variability as the result of a gamer's abilities and playing styles, all recorded narrative sequences will remain constant, regardless of such deviations. Further details regarding the variable length of play is discussed in the Results section.
3. The observed methods of story delivery in each game were, where possible, examined in the context of the established narrative structures described above. The findings will help to show any possible links between the assessed games and traditional approaches to storytelling.

4. Where possible, the results for each game are presented in a chronological, schematic order to illustrate the composition of the games' narrative, gameplay sections, and any identifiable patterns or relationships with existing narrative structures.

The collected data from the transcriptions were then inputted into Microsoft Excel, from where various categorizations, statistical summaries, tabulations, and schematic representations were constructed. The following section presents the initial findings of this investigation.

Results

This initial set of results examines the proportion of time allocated to game narrative, the use of back stories, cut scenes, on-screen text, game prompts, and game structure, as described above. Results pertaining to the more advanced aspects of narrative, such as narrative structure, emotions, and archetypes, are considered in the following essay.

Table 3 gives a broad summary of the percentage of time allocated to prescribed narrative in the form of cut scenes, on-screen text, and other in-game prompts. Most of the games dedicate a sizable proportion of time, with the most significant titles being The Secret of Monkey Island, Shenmue 2, and Final Fantasy X where 28%, 26%, and 20% of total game time, respectively, is assigned to various forms of narrative delivery. Exceptions to this were observed in The Legend of Zelda and Half-Life 2 (1% of game time each) and Flashback (3%) where the times allocated are comparatively small. The explanation here is that two of these games (Zelda and Flashback) are relatively old titles stored on traditional cartridge and floppy-disk formats (typically from around one megabit to 1.44 megabytes of total capacity), and hence rely heavily on the use of on-screen text and prompts due to memory restrictions. In the case of Half-Life 2, the distinctive nature in which this game presents narrative (that is, largely based on audio and textual cues rather than cut scenes) means that a direct comparison with the other games does not give meaningful results at this stage. This idiosyncrasy will be explored in more detail in the section on Cut Scenes, Text, and Prompts.

It can be seen that the games vary in terms of the time required for completion of the main story (only two games, The Godfather and Fable, allow players to continue after completion, but only to develop additional skills and attributes for further play—that is, no extra story is provided), ranging from 6.5 (The Legend of Zelda) to a not inconsiderable 46 hr (Final Fantasy X). As mentioned in the previous section, it should be borne in mind that the game completion times (and thusly, the proportion of prescribed narrative components in relation to the total game time) shown here contain a degree of variability depending on a gamer's experience and playing style, that is, one who has played the game before or has extensive experience in the relevant genre should be able to complete that game at a quicker pace and more leisurely players may procrastinate or embark on numerous side quests before

Table 3. Summary Statistics for the Chosen Games

Game	Total Game Time	Types of Narrative Delivery	Total Length of Prescribed Narrative Components (Including Cut Scenes, Prompts, On-Screen Text, etc.)	Percentage of Prescribed Narrative as a Proportion of Total Game Time
The Legend of Zelda	6 hr 30 min	Simple level completion screens, on-screen text	2 min	1%
The Secret of Monkey Island	6 hr 35 min	Cut scene, on-screen text	1 hr 49 min	28%
Flashback	6 hr 40 min	Cut scene, on-screen text	13 min	3%
Shenmue 2	18 hr 50 min	Cut scene, on-screen text, quick-time events (QTE)	4 hr 52 min	26%
Resident Evil Code Veronica X	9 hr 5 min	Cut scene, on-screen text	1 hr 37 min	18%
Final Fantasy X	46 hr	Cut scene, on-screen text	9 hr 14 min	20%
Half-Life 2	12 hr 5 min	Cut scene, audio and textual cues	5 min	1%
Fable	8 hr 55 min	Cut scene	1 hr 31 min	17%
The Godfather	11 hr 45 min	Cut scene, audio and textual cues	1 hr 9 min	10%
Halo 3	10 hr	Cut scene, audio and textual cues	43 min	7%

resuming the main mission. Consequently, the total game times and proportions obtained in this study only act as approximate indicators, and which may be expected from a player with experience in various game genres but with no previous experience in the chosen titles, and whose aim was strictly that of pursuing the main story. The length of the narrative components, however (such as cut scenes, prompts, and text), are fixed and will remain identical, regardless of a player's experience.

Back Story

A summary of the back stories in the chosen titles with respect to their methods of delivery and content is given in Table A1 of the Appendix. As discussed in the section on Narrative Techniques in Computer and Video Games, back stories serve to describe a game's environment, key characters, and main objectives. Table A1 shows that the vast majority of the chosen games adhere to standard methods of delivery (such as being written on game packaging, instruction manuals, and presented just before the game begins) and their content is consistent with those expected in back stories. Due to the story-driven nature of the chosen games, even comparatively simple titles—such as The Legend of Zelda and Flashback—contain back stories to contextualize game objectives and introduce key characters. Of the games that contain a back story, all but one (Fable) introduce the hero and shadow and specify the game's setting as well as the hero's main objective. Only one title, Half-Life 2, contains no self-contained back story, that is, that further information on its prelude may only be gleaned from the playing of the original Half-Life title or through related articles about the franchise.

In terms of delivery, all but two of the chosen games provide a back story either on the game's packaging or in its instruction manual. In the case of The Legend of Zelda, Shenmue 2, Resident Evil, and Fable, an introductory cut scene of the back story is shown before the game begins. It can be seen that a certain level of dramatic effect is present in all of the back stories examined, with themes including rescue, murder, revenge, escape, survival, mystery, and heroism being the principal focus in many of the titles. This point is further reinforced by the clear presence of the second chapter of The Hero's Journey (the call to adventure) in all of the observed back stories, of which an in-depth analysis is given in the next article. Additionally, the dramatic effect is, in some titles (most evident in The Legend of Zelda, Shenmue 2, The Godfather, and Halo 3) supported by the introduction of ally, herald, and mentor archetypes (see the section on Narrative Techniques in Computer and Video Games and findings from the following article), which provide a greater sense of depth to the back story.

Cut Scenes, Text, and Prompts

This section details the use of cut scenes, on-screen text, prompts, and related techniques of narration observed in the chosen games. It can be seen from the results in Table A2 in the Appendix that the use of cut scenes is commonplace for narrative

delivery—especially in Resident Evil, Final Fantasy X, The Godfather, and Halo 3, where over 70% of all narrative is delivered using this method. However, the results draw attention to numerous subtle variations in terms of the type of cut scene, duration, and frequency, which are deployed depending on the type of information that is presented, and its importance in the context of the game's story. Of the games studied, 12 forms of narrative intervention were observed:

1. narrative presented as passive game screen;
2. narrative presented as on-screen text;
3. narrative presented as cut scene;
4. narrative presented as cut scene combined with on-screen text;
5. narrative presented as combination of gameplay, cut scene, and on-screen text;
6. narrative presented as combination of gameplay, sound, and textual cues;
7. short game prompts (mission hints or pointers) presented as on-screen text;
8. short game prompts (mission hints or pointers) presented as a cut scene;
9. short game prompts (mission hints or pointers) presented simultaneously as cut scene and on-screen text;
10. short game prompts (mission hints or pointers) presented as an integral part of gameplay;
11. short game prompts (mission hints or pointers) presented as gameplay, sound, and textual cues;
12. credit roll and/or ending sequence.

Of the 10 games, Shenmue 2 and Final Fantasy X demonstrate the greatest variety using the widest range of interventions—each using seven different methods throughout the game—whereas older titles such as The Legend of Zelda and Flashback use fewer. As may be expected, older titles rely on the use of simple on-screen text for either narrative or prompts, while newer titles use a more expansive range of techniques with longer durations and higher frequencies (such as longer and more frequent cut scenes). The most striking example is the use of cut scenes, where in The Legend of Zelda the one and only scene lasts 45 s, as compared to Final Fantasy X that contains 137 cut scenes, with an average 3 min and 6 s per scene.

One of the most interesting techniques used by four of the more contemporary titles (Half-Life 2, Fable, The Godfather, and Halo 3) is the delivery of narrative and/or prompts via the simultaneous use of gameplay, sound, and textual cues. This technique begins to demonstrate the use of reactive environments as discussed in section on Narrative Techniques in Computer and Video Games, which rather than using interventions that interrupt play, more seamless forms of narrative and/or prompting are provided during play. In some instances, characters' emotions may also play a key role (explored further in the following article) and thus provide a more natural progression of narrative. The only major disadvantage of this technique is that the player may miss the scene, or wish to replay it to clarify information and/

or objectives, in which case there is no direct opportunity to repeat the sequence unless that specific section of the game is restarted.

Apart from the above observations relating to the duration and deployment of various forms of narrative, the other intriguing finding is the greater similarity between the chosen games in terms of the percentage of time devoted to narrative as a proportion of total game time. Despite the sizable variation in terms of the frequency and duration between various narrative methods among older and newer titles, there is greater uniformity in the quantity of time actually devoted to narrative with respect to the total length of each game. The summaries shown in Table 3 illustrate this point, where smoother fluctuations can be observed across the chosen games. With the exception of Half-Life 2, where most of its narrative is presented as an integral part of gameplay (see Atkins (2003, pp. 63-78) for further theoretical discussion), narrative sections do not exceed around 28% of total game time irrespective of the quantity and duration of the individual components (cut scenes, text, prompts, etc.) contained within them. Striking also is the close similarity between some older and newer titles in terms of total narrative as a proportion of total game time—that is, The Legend of Zelda, Flashback, Halo 3, and The Godfather, show only a 9% difference from each other; whereas Final Fantasy X, Shenmue 2, and The Secret of Monkey Island show an 8% difference. Thus, despite the marked increase in duration and frequency of narrative sequences in newer games as compared to older games, as well as the increasing emphasis on the development of narrative in modern games, the total time assigned to its delivery has not substantially increased over two decades of development.

One other notable finding in this section relates to the use of game prompts. Typically, these involve the use of short sequences (presented as cut scenes, text, audio, and/or gameplay/player interventions—such as that of pressing a certain button to acknowledge receipt of the prompt) to inform about mission aims, points of interest, target locations, and so on. These, in effect, provide a loose connection to the main narrative but serve no additional purpose beyond that of guiding a player through the gameplay. Although such prompts are short events, the frequency of their occurrence in many of the chosen games closely matches that of the more descriptive story elements delivered via narrative cut scenes, text, and gameplay (see data in Table A2 in Appendix). In some titles (The Legend of Zelda, The Secret of Monkey Island, Shenmue 2, and Fable), the proportion of time allocated to prompts represents a sizable amount ranging from 19% to 30% (see Table 4) of the total narrative. This observation indicates the effort required for prompting players on how they may progress in the game in view of the complexity of some story-driven titles.

Game Structure

As discussed in section on Narrative Techniques in Computer and Video Games, although the literature reports on the need for a migration from linear to branching game structures, the titles analyzed in this study remain decidedly linear in terms of their overall structure as shown in the summaries in Table 5. The most prominent

Table 4. Summaries of Game Prompts

Game	Game Prompts (Cut Scene, Text, Gameplay, etc.) as a Proportion of Total Narrative	Game Prompts as a Proportion of Total Game Time
The Legend of Zelda	30%	<1%
The Secret of Monkey Island	19%	5%
Flashback	2%, plus those requiring player interventions	<1%
Shenmue 2	29%, plus those requiring player interventions	8%
Resident Evil Code Veronica X	9%, plus those requiring player interventions	2%
Final Fantasy X	14%, plus those requiring player interventions	<3%
Half-Life 2	Purely based on player intervention	Purely based on player intervention.
Fable	20%, plus those requiring player interventions	3%
The Godfather	4%, plus those requiring player interventions	<1%
Halo 3	3%, plus those requiring player interventions	<1%

Table 5. Summaries of Observed Game Structures

Game	Observed Structure
The Legend of Zelda	Branch and linear—branching is observed during free roaming (i.e., exploration of world map), but reverts to linear structure when specific level is selected
The Secret of Monkey Island	Linear, but branching is evident within level confines. Player may explore subsections and side quests before embarking on main objective
Flashback	Linear—evidence of branching is observed only within specific levels (e.g., alternative routes toward the same end)
Shenmue 2	Linear, but branching is evident within level confines. Player may often explore a range of subsections and side quests before embarking on main objective
Resident Evil Code Veronica X	Linear—largely dictated by predefined routes with limited opportunity for branching beyond confined sections
Final Fantasy X	Linear, but branching is evident within confines of story progression. Player may often explore a range of subsections and side quests before embarking on main objective
Half-Life 2	Linear—largely dictated by predefined routes with limited opportunity for branching beyond confined sections
Fable	Linear, but branching is evident within level confines. Player may often explore a range of subsections and side quests before embarking on main objective
The Godfather	Linear, but branching is evident within level confines. Player may often explore a range of subsections and side quests before embarking on main objective
Halo 3	Linear—largely dictated by predefined routes with limited opportunity for branching beyond confined sections

extensions beyond this lies in the use of branching structures within specific levels—that is, despite being a generally linear experience, alternative routes are offered at various points in most of the games. Thus, this finding illustrates that both traditional and contemporary games closely adhere to the structure shown in Figure 2. Interestingly, even the oldest game in this study, The Legend of Zelda, gives an illusion of branching, which is replicated in the newer titles, albeit with greater variety and complexity.

The limitations of the branching structure are also linked to issues regarding the extensive use of cut scenes for narrative delivery as explored in the previous section. The characteristics of cut scenes require a structure that accommodates the demands of their delivery, which is typically that of passivity and linearity. Hence, as dictated by the presence of a linear story, the consequence to the game structure is necessarily that of overall linearity but supported by some degree of variability via branching which often serves only as an incentive for repeated play (Sheldon, 2004, pp. 303-304). In the examined titles, only a certain degree of freedom is offered outside the confines of the overall game objective, usually within specific levels via side quests and subsections. Even in titles that emphasize player-determined outcomes (such as Fable and The Godfather where the fate of the central character depends on a player's actions), the game structure is distinctively linear. Despite these findings, further analyses presented in the next article examine how the depth and complexity of game narratives are supplemented and enhanced using alterative methods.

Summary

This introductory article provides a comprehensive overview of interactive narrative and establishes the foundation for a more extensive analysis presented in the following article. The initial results provided here highlight some of the salient elementary aspects of game narrative, including the allocation of time, the means of depicting narrative such as back stories, cut scenes, text, prompts, and game structure. The main findings are summarized below.

Proportion of time allocated to prescribed narrative and the use of back stories:

- The chosen titles generally dedicate a significant amount of time to prescribed narrative with respect to recognized means of delivery such as the use of back stories, cut scenes, and prompts, where in some modern titles amount to in-excess of 9 hr of total game time. However, in terms of the proportion of this narrative to total game time, this does not exceed around a quarter of the total gaming experience. Thus, in spite of recent advances in game technology—especially in the area of visual aesthetics—and the need for more complex narratives, the broad finding is that there is notable uniformity in terms of the proportion of time that is being dedicated to game narrative.
- Back stories were presented using conventional means (on game packaging, instruction manual, opening cut scene, etc.), but the most intriguing finding

resides in their content. In the majority of back stories, there is the clear presence of Chapter 2 of The Hero's Journey (The Call to Adventure), and the creation of drama via the use strong themes (such as rescue, murder, revenge, escape, survival, mystery, and heroism) and introduction of key archetypes (typically, the hero and shadow)—an area to be examined at length in the next article.

Cut scenes:

- As highlighted in existing literature and the data gathered in this study, the use of cut scenes continues to dominate as the most popular method of narrative delivery. In some cases, the use of cut scenes amounted to over 70% of the total prescribed narrative. Self-evidently, this again draws attention to the problems posed by the use of cut scenes, which are exacerbated by the heavy reliance on its use as a form of narrative delivery.
- Despite the emphasis on cut scenes, variety was observed in other methods of narrative delivery where a total of 12 techniques were found, including on-screen text, audio cues, and the combination of gameplay, cut scene, and on-screen text. In addition, it was discovered that the total time of actual narrative (devoted to aspects such as character development and story progression) was further eroded by the use of simple game prompts used to help guide the player through specific parts of gameplay. In some instances, this amounted to between 19% and 29% of total narrative: percentages largely attributable to the rising complexity of modern games which necessitate the use of prompts to clarify gaming objectives and/or instructions for play.

Game structure:

- Although the literature reports for the need for more advanced game structures, the observations in this study point toward the sustained prevalence of the linear game structure. The use of the branching structure was observed but only as an adjunct to provide a greater sense of freedom in confined sections.
- A complementary technique that enhances the illusion of branching and player choice is the use of subquests, where the player may decide to deviate from the central narrative. Side quests contribute to the delivery of a more organic story but, as yet, serve only to provide minor additions to the main story.

As a precursor to the further in-depth analyses in the following article, these preliminary findings on the basic representation of interactive narrative shed some light on the potential gaps and areas for future improvement. Although many of these results highlight uniformity across the chosen titles (such as the proportion of time allocated to prescribed narrative, the use of back stories, the relative dependence on cut scenes, and the recurring prevalence of linear game structures), and when considered independently, certainly point toward the need for greater efforts to be placed on

Appendix

Table A1. Summary of Information Given in Back Stories

		Content		
Game Title	Method of Delivery	Location	(See section on Archetypes in next article for more details.)	Objectives
The Legend of Zelda	Written in instruction booklet; a shorter version is shown on title sequence before game start (text format)	A long time ago, in a fictional place called Hyrule	Link—hero Princess Zelda—herald Impa—ally Ganon—shadow	The world of Hyrule is in chaos. A Triforce of Power has been seized by Ganon's army. Ganon has also captured princess Zelda of Hyrule, the guardian of the Triforce. Link hears this story, and seeks to find the Triforce and rescue the princess
The Secret of Monkey Island	Written on game packaging	Monkey Island, in the Caribbean	Guybrush Threepwood—hero Beautiful woman—amima, herald Dead, jealous suitor—shadow	Objectives are implied: three trials; meeting a beautiful woman and her dead, jealous suitor; finding a way to get to the ghost
Flashback	Written on game packaging	Bizarre alien planet	Conrad Hart—hero Mutant forces—shadow	A hero with amnesia needs to get back to planet Earth and stop invading mutant forces
Shenmue 2	Written in instruction booklet; short introduction is also provided on game start (see the section on Cut Scenes, Text, and Prompts)	Yokusuka, Japan, 1986; Hong Kong	Ryo Hazuki—hero Iwao—hero's father Lan Di—shadow Master Chen—herald, ally Guizhang—ally Mad Angels—threshold guardians Lishao Tao—mentor, ally, herald Yuanda Zhu—mentor, ally, herald	The hero witnesses the murder of his father by a mysterious man called Lan Di. Di is in search of a sacred artifact called the Phoenix Mirror, which the hero's father was in possession of. Assisted by friends and allies, the hero embarks on a journey to find Lan Di and to discover the secret of the Phoenix Mirror

(continued)

Table A1 (continued)

Game Title	Method of Delivery	Content		
		Location	(See section on Archetypes in next article for more details.)	Objectives
Resident Evil Code Veronica X	Written on game packaging; cut scene on game start	Three months after Resident Evil 3; security compound of the Umbrella Corporation	Claire Redfield—hero Chris Redfield—shape shifter (hero and ally) Umbrella Corporation—mysterious organisation, possibly shadow	Claire Redfield has been captured by the Umbrella Corporation. She attempts to escape from the compound, but appears to be unsuccessful. You take control of Claire and must try to escape and find out about Umbrella's insidious activities
Final Fantasy X	Written on game packaging	Fantasy, magical world of Spira	Tidus—hero Yuna—ally, herald, anima Sin—shadow	Tidus and Yuna must embark on a quest to defeat Sin to bring peace back to Spira
Half-Life 2	No back story in instruction booklet, game packaging, or game	NA	NA	NA
Fable	No back story in instruction booklet or game packaging. Back story is given in game during progression (see the section on Cut Scenes, Text, and Prompts)	Fictional village of Oakdale	Boy—hero Father Sister—shapeshifter	The boy lives in the village of Oakdale with his father and sister and is about to begin on an adventure
The Godfather	Written in instruction booklet	New York City	Aldo Trapani—hero Corleone Family—allies The Tattaglias, Straccis, Cuneos, and Barzinis—threshold guardians and shadow	As a member of the Corleone Family, you must make a name for yourself in the battle to become the Don, mafia boss of New York City
Halo 3	Written in instruction booklet	Earth, 2552	Master Chief—hero The Elites—allies Halos, Covenant, Prophets, Flood—threshold guardians and shadows	You take the role of Master Chief in his quest to fight against the Covenant, Prophets, and Flood, in an attempt to stop the initiation of the Halos which will destroy all life in the galaxy

Table A2. Summary of Various Modes of Narrative Intervention

Title	Method of Intervention	Number of Occurrences	Total Time	Percentage of Total Narrative	Percentage of Total Game Time	Average Duration of Each Intervention	Average Time Between Interventions
The Legend of Zelda	Narrative cut scene	5	45 s	30	<1	45 s	30 min
	Narrative simultaneously presented as cut scene and on-screen text	1	1 min 4 s	40	<1	1 min 4 s	
	Passive game screen (visual cues, prompts, level completion, etc.)	11	40 s (time may vary depending on how quickly each screen is bypassed by the player)	30	<1	4 s	
The Secret of Monkey Island	Narrative cut scene	19	17 min 52 s	16	5	1 min 3 s	4 min 26 s
	Narrative simultaneously presented as gameplay, cut scene, and on-screen text	41	1 hr 9 min	63	17	1 min 46 s	
	Short game prompts (mission hints or pointers) presented as cut scene.	14	3 min 22 s	3	1	14 s	
	Short game prompts (mission hints or pointers) presented as integral part of gameplay	14	17 min 9 s	16	4	1 min 14 s	
	Credit roll and ending sequence	1	2 min	2	<1	2 min	
Flashback	Narrative cut scene	12	12 min 24 s	98	3	57 s	14 min 17 s
	Narrative presented as on-screen text	3	Dependent on player intervention.	NA	NA	NA	
	Short game prompts (mission hints or pointers) presented as on-screen text	11	Dependent on player intervention.	NA	NA	NA	
	Short game prompts (mission hints or pointers) presented as cut scene	2	16 s	2	<1	8 s	

(continued)

Table A2 (continued)

Title	Method of Intervention	Number of Occurrences	Total Time	Percentage of Total Narrative	Percentage of Total Game Time	Average Duration of Each Intervention	Average Time Between Interventions
Shenmue 2	Narrative cut scene	64	2 hr 26 min	50	13	2 min 17 s	6 min 19 s
	Narrative presented as on-screen text	2	Dependent on player intervention.	NA	NA	NA	
	Narrative simultaneously presented as gameplay, cut scene, and on-screen text	16	57 min 21 s	20	5	3 min 35 s	
	Short game prompts (mission hints or pointers) presented as on-screen text	12	Dependent on player intervention.	NA	NA	NA	
	Short game prompts (mission hints or pointers) presented as cut scene	73	1 hr 06 min	23	6	55 s	
	Short game prompts (mission hints or pointers) presented as integral part of gameplay	6	17 min	6	2	2 min 49 s	
	Credit roll	1	5 min 40 s	1	<1	5 min 40 s	
Resident Evil Code Veronica X	Narrative cut scene	46	1 hr 23 min	85	15	1 min 49 s	5 min 59 s
	Narrative presented as on-screen text	1	Dependent on player intervention.	NA	NA	NA	
	Short game prompts (mission hints or pointers) presented as on-screen text	1	Dependent on player intervention.	NA	NA	NA	
	Short game prompts (mission hints or pointers) presented as cut scene	42	8 min 36 s	9	2	12 s	
	Credit roll	1	5 min 26 s	6	1	5 min 26 s	

(continued)

Table A2 (continued)

Title	Method of Intervention	Number of Occurrences	Total Time	Percentage of Total Narrative	Percentage of Total Game Time	Average Duration of Each Intervention	Average Time Between Interventions
Final Fantasy X	Narrative cut scene	137	7 hr 5 min	77	15	3 min 6 s	11 min 2 s
	Narrative presented as cut scene and on-screen text.	16	47 min	8	2	2 min 57 s	
	Narrative presented as on-screen text	2	Dependent on player intervention.	NA	NA	NA	
	Short game prompts (mission hints or pointers) presented as on-screen text	1	Dependent on player intervention.	NA	NA	NA	
	Short game prompts (mission hints or pointers) presented as cut scene	82	1 hr 6 min	12	2	48 s	
	Short game prompts (mission hints or pointers) simultaneously presented as cut scene and on-screen text	11	9 min 46 s	2	<1	53 s	
	Credit roll.	1	6 min 38 s	1	<1	6 min 38 s	
Half-Life 2	Narrative cut scene	3	2 min 1 s	44	<1	40 s	20 min 43 s
	Narrative simultaneously presented as gameplay, sound, and textual cues	25	Dependent on player intervention and game progress.	NA	NA	NA	
	Short game prompts (mission hints or pointers) simultaneously presented as gameplay, sound, and textual cues	6	Dependent on player intervention and game progress.	NA	NA	NA	
	Credit roll	1	2 min 35 s	56	<1	2 min 35 s	
Fable	Narrative cut scene	50	58 min 21 s	64	11	1 min 10 s	5 min 53 s
	Short game prompts (mission hints or pointers) presented as cut scene	38	17 min 57 s	20	3	28 s	
	Short game prompts (mission hints or pointers) simultaneously presented as gameplay, sound, and textual cues	2	Dependent on player intervention and game progress.	NA	NA	NA	
	Credit roll	1	15 min 7 s	16	3	15 min 7 s	

(continued)

Table A2 (continued)

Title	Method of Intervention	Number of Occurrences	Total Time	Percentage of Total Narrative	Percentage of Total Game Time	Average Duration of Each Intervention	Average Time Between Interventions
The Godfather	Narrative cut scene	93	1 hr 6 min	96	9	43 s	6 min 17 s
	Narrative simultaneously presented as gameplay and sound cues	2	Dependent on player intervention and game progress.	NA	NA	NA	
	Short game prompts (mission hints or pointers) presented as cut scene	14	3 min 5 s	4	<1	13 s	
	Short game prompts (mission hints or pointers) simultaneously presented as gameplay, sound, and textual cues	3	Dependent on player intervention and game progress	NA	NA	NA	
Halo 3	Narrative cut scene	16	39 min 47 s	92	7	2 min 29 s	25 min
	Short game prompts (mission hints or pointers) presented as cut scene	4	1 min 23 s	3	<1	21 s	
	Short game prompts (mission hints or pointers) simultaneously presented as gameplay, sound, and textual cues	3	Dependent on player intervention and game progress.	NA	NA	NA	
	Credit roll and ending sequence	1	2 min 14 s	5	<1	2 min 14 s	

alternative methods of narrative delivery, these issues are nevertheless firmly intertwined with those concerning the presence of emotions, the use of narrative structures, as well as character archetypes. For this reason, Part 2 of this article extends on these avenues of examination such that a more informed and wholesome reflection of interactive narrative may be derived.

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