

Following the Fallout:

Narrative structures in a videogame franchise

By

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Abstract

The progression of narrative within videogames is established through a structure of set narrative units. This thesis is an examination of the structure of narrative within the *Fallout* franchise, as framed through Roland Barthes' narrative structuralism and a definition of narrative influenced by Mihaly Csikszentmihalyi's definition of 'activities'. Narrative structuralism conceptualises narrative units as consisting of cardinal functions and catalysts. Narrative within videogames is constructed by these two narrative types: cardinal functions create a firm foundation for the videogame narrative, and catalysts allow players to affect and interact with it. Therefore, the claim is that videogame narratives are based upon a passive structure that establishes the scope of the narrative and cannot be altered by the player. This creates a framework within which active narratives can react to the player's actions.

This framework provides a distinction between moments when the player is a passive participant in narrative, and moments when the player is an active participant. This demarcation of activities – the text not allowing the player to act, and the text inviting action from the player – provides the basis for passive and active narratives. These correspond to Barthes' narrative structures: cardinal functions are passive in that they do not alter, while catalysts are active in that they enable alteration. These binary narrative types provide a method of analysis for how narrative operates within the *Fallout* franchise.

The *Fallout* franchise's narrative structure is explored by providing a close analysis of five videogames: *Fallout*, *Fallout 2*, *Fallout 3*, *Fallout: New Vegas*, and *Fallout 4*. These active narratives can differ in their reactions to the player's actions and how their reactivity creates change within the narrative events of the text. Moreover, the thesis concludes that for increasingly complex active narratives to occur, the reactions provided by the text must relate to the actions and consequences of those actions initiated by the player.

Ultimately, this thesis extends previous works of narrative scholars by approaching the dynamic nature of videogames from the perspective of the text's affordances or guidelines for narrative, rather than from the perspective of player choice. It is the hope of this exploration that, beyond understanding the simultaneously fixed and mutable nature of videogame narratives, the analysis provided here encourages readers to consider the narrative possibilities in the design of videogames, and the unique narratives that they can tell.

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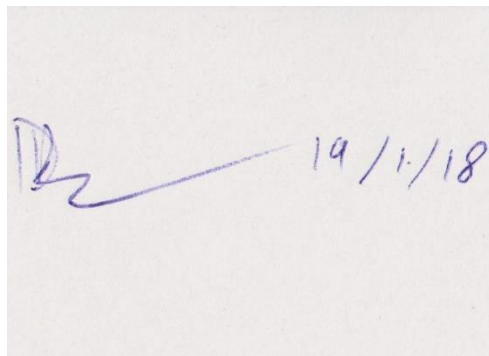
Lastly, I would like to thank my family who have supported my learning and encouraged me to continue studying. Without them this thesis would not exist.

Student Declaration

I, Daniel Joseph Dunne, declare that the examinable outcome:

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Signed:

A handwritten signature in blue ink, followed by the date 19/1/18.

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1 Introduction

Following the Fallout: Narrative structures in a videogame franchise is concerned with the design of narratives within the medium of videogames, specifically the *Fallout* franchise. The *Fallout* franchise has been chosen as a case study as it conforms to the norms of the role-playing genre, yet also provides variation throughout its development over a 19-year period. Each videogame embodies the *Fallout* world, but each alters the presentation of the world through a host of different developers, publishers, technologies, and industrial influences. Based on this history, I ask two main questions about the *Fallout* franchise: what are the narrative structures in these videogames; and how are they alterable by the player?

This thesis strives to answer the first question, relating to the nature of the narrative structures, through a combination of literary and games theory. This line of questioning foregrounds the narrative design of the *Fallout* videogames, identifying the areas where the player can and cannot affect the narrative. In this manner, the structure of narratives is identified for the medium of videogames, and specifically the genre of role-playing videogames. This question is important for clarifying the scope of this research, and furthermore identifies the lens through which these videogames will be examined. Previous scholarship has touched on how videogames are structured; a further focus is needed to derive a more nuanced analysis. As Hans-Joachim Backe identifies within his own work on narrative structures, ‘The conceptualisation of narrative as a component of game structure outlined here is only a simple framework that leaves many questions untouched’ (2008, p. 258). This thesis seeks to answer those questions of structure further by delving into an analysis of the *Fallout* franchise.

Having identified these narrative structures, much of the later discussion relates to the follow-up question: ‘How are these narrative structures in the *Fallout* franchise alterable?’ In answer, the thesis looks to videogame scholarship regarding narrative paths as explored by Marie-Laure Ryan in *Virtual Narratives 2* (2015) and Espen Aarseth’s *Cybertexts* (1997); to discussions of affordances by Dan Pinchbeck (2007; 2009); and to Mihaly Csikszentmihalyi’s notion of interaction in *Optimal Experience* (1992). Videogame scholarship by itself does not fully explain the reactions to player action that the text provides; this is why Mihaly Csikszentmihalyi’s discussion of activities has been included in this analysis. Another method of considering agency is provided through an analysis of Csikszentmihalyi’s work, in particular, the notion of “active narratives”: texts that provide feedback to their audiences. Although active narratives are what make videogames unique, there are undeniably still instances where videogames are “passive” with their narrative: where the narrative does not alter based on what the player does; at most it progresses. It is through this identification of active and passive narratives that videogame narrative structures can be understood.

Through answering these questions of narrative structure and alteration, I aim to provide an explanation of how these videogames are designed as narrative experiences that are both alterable and fixed. Through this analysis other aspects of videogame design can be seen as well, such as how these videogames emphasise different aspects of their narrative, how these videogames are designed to shape player responses, and how extraneous material such as manuals, user interfaces, and icons all contribute to immersing the player within the game world. To further support this analysis, developers for each of the *Fallout* videogames were interviewed about their design process, including their construction of different solutions and narrative pathways. These include Tim Cain and Leonard Boyarsky, the lead developer and designer of *Fallout* and *Fallout 2*.¹ I am, much like Geoff King and Tanya Krzywinska's work *Tomb Raiders and Space Invaders*, is concerned with what they call 'the ways games are structured and realised and the kinds of experiences offered by the activities they require or encourage of the player' (2006, p. 4). This study seeks to explore the relative positioning of text and player to better understand the design conventions of single-player role-playing videogames.

This introduction provides the groundwork for the thesis' two questions: identifying what narrative structures are for single-player role-playing videogames, and the manner in which they can be altered. The introduction does this through a literature review identifying active and passive texts, providing an overview on previous works on audience engagement with media, and how these relate to Barthesian narrative structures. These discussions also include an analysis of player activity and passivity, which facilitates understanding areas within videogames where the player is able to act but does not alter the narrative structure with their actions. This player activity and passivity, although not a focus, is an important factor in how the videogame is experienced by the player.

Primarily this chapter serves to introduce the reader to videogames positioned as a text with a set narrative, and investigate how they can be understood as a combination of active and passive narratives. To this end this chapter establishes the conceptual framework for the thesis in preparation for the justification of using the *Fallout* franchise as a case study.

¹ For quotes attributed to the interviews conducted with Tim Cain and Leonard Boyarsky the thesis refers to the transcripts provided in the appendices 8.1 and 8.2, and cites them respectively as (Appendix 8.1) and (Appendix 8.2).

1.1 Focus on the *Fallout* Franchise

The *Fallout* franchise offers an ideal case study for this thesis due to its popularity, longevity, and the influence of the franchise. The franchise demonstrates a broad spectrum of change through its development over the past 19 years.

The popularity of the Bethesda Softworks videogames *Fallout 3*, *Fallout: New Vegas* and *Fallout 4*, as well as the Interplay Entertainment Games *Fallout 1*² and *Fallout 2*, provides a good indication of the cultural prominence of these videogames. Their popularity can be seen through the positive reviews of each *Fallout* videogame, consistently average's over 80%, and the awards won for each game.³ *Fallout 4* reached retail sales of 12 million units, 'representing sales in excess of [USD] 750 million' in the first 24 hours (Makuch, 2015). The critical and financial success of the *Fallout* franchise means that a wide audience will most likely be aware of the series, even if they have not played it themselves. With this in mind, a study of the *Fallout* franchise provides a good indicator for narrative developments in other role-playing videogames, and also provides a number of accessible texts to which a narrative analysis can be applied.⁴

The longevity of the *Fallout* series provides a consistent basis from which to study narrative developments within the role-playing genre and within a single franchise. Most other long-standing franchises, such as *Warcraft* or *Assassin's Creed*, showcase too much divergence from their original fictional worlds. Others develop into videogames that focus less on narrative experiences and more on gameplay, such as the franchises of *Mario* or *Sonic*. Other games also offer potential focal points for a study of narrative, such as the role-playing videogame franchises of the *Elder Scrolls*, or the *Mass Effect* series; however, the development of the *Elder Scrolls* videogames alters too radically, while *Mass Effect* offers little variation in the development of each title. The *Fallout* franchise represents a combination of these two types of franchises in that the similarities between each instalment can be seen in a comparison of *Fallout 1* to *Fallout 2*, and again by comparing *Fallout 3* to *Fallout: New Vegas*, while the overall divergence in the franchise can be seen in the differences between *Fallout 1*, *Fallout 3* and *Fallout: 4*. The *Fallout* franchise thus offers a plethora of both similarities and differences, which makes it an ideal focal point for study.

Fallout's prominence on multiple platforms is also relatively unusual; other storyline-focused franchises tend to stick to a particular platform, such as the *Uncharted* series. *Fallout* has also had a

² The original *Fallout* game, released in 1997, does not have the suffix of 1; however for clarity I will use the number to distinguish the first game in the series from general discussions of the *Fallout* franchise or *Fallout* fictional world.

³ These scores and reviews can be seen in the Appendix 8.5 and 8.6.

⁴ For extensive critical writings about the franchise see Michael Clarkson's "Critical Compilation: *Fallout 3*" at the website *Critical Distance* (2009).

significant influence upon other games: most notably, its ‘perks’ system has been implemented into a number of other RPG videogames, including *Oblivion*, *Mass Effect* and *Arcanum*; and as ‘feats’ within the third edition of the tabletop game *Dungeons and Dragons*. Aside from these gameplay innovations, *Fallout* has catalysed the narrative innovations of reactive videogames, influencing the creation of later role-playing videogames *Planescape: Torment*, *Mass Effect*, *The Witcher* and *Dragon Age*, which react intelligently to the actions and the skills of the player. Some videogames display a clear influence on others, but the influence of the *Fallout* franchise is exceptional in both depth and breadth. This is why the *Fallout* franchise has been selected as the focal point for this study of narrative structures.

Through an exploration of the *Fallout* franchise’s narrative structures, further understanding of complex and reactive narratives can be achieved. Narratives within videogames have become increasingly multifaceted in recent years. Narratives are no longer easily distinguished from gameplay, as developers and audiences – not to mention academics – conflate their overall experience of videogames as a single narrative (Frasca, 2003, p. 233; Juul, 2011, pp. 155-157). Videogame development has already made use of these complex narratives, intertwining player actions more intricately with videogame plots so that even seemingly insignificant player decisions influence the progression of the main plot. From the innocuous meeting of main characters within *The Witcher 3: The Wild Hunt*’s side quests to misplacing objects in *Until Dawn* that can aid or hinder confrontations with the antagonist, videogames make full use of active elements to influence their narrative structure. These textual reactions are explored through a combination of pre-existing media, literature and videogame theory.

1.2 A Narrative Analysis

A narrative approach is crucial to an understanding of how the main quests, side quests, and general player action works within the *Fallout* franchise. Narrative and gameplay are often separate focal points within videogame studies: analysis of game systems and narratives has occurred frequently in the past within the study of role-playing games, specifically tabletop games (Harrigan and Wardrip-Fruin, 2010, pp. 1-4). This field of research has examined the interplay between a set narrative action – ‘a campaign’ – the freeform activities of players, and the reactions of a dungeon master. However, videogame studies rarely explores how static and dynamic narratives couple to create coherent yet still reactive⁵ experiences.

⁵ Reactive actions are the responses of the text to the player’s actions. Similar to the way Mihaly Csikszentmihalyi (seen in the later half of section 1.3) uses feedback to indicate active experiences, so too can reactivity indicate an active narrative.

Hans-Joachim Backe's "Narrative Rules?" (2012) and Gonzalo Frasca's "Simulation Versus Narrative" (2003) provide an introduction to the notion of established videogame narrative structure, cross-referencing Roger Caillois' notion of *ludus* and *paidia* (Caillois, 1961, p. 13). The analysis places an emphasis upon the gameplay actions instead of focusing on how player action causes a reaction within the text. Consequently, it explores how player actions structure the overall form of the text, and how the text responds to the player's actions on a narrative level.

Exploring the *Fallout* franchise's narrative structures can provide insights into the necessary structure of videogames, which provides all players with a shared experience while incorporating dynamic sections. This organisation of differing outcomes and results into a coherent narrative advances prior research and furthers scholarly understanding of what the content and form of videogames can do for their narratives.

The findings of this research can also provide some explanation of active and passive narratives in a broader sense of media. However, such applications will have to consider medium-specific constraints when reapplying the theory to other videogames or active texts, because while most videogames with a story will feature some aspects of active narratives, these interactions vary from what the *Fallout* franchise presents. Fundamentally, the identification of active texts provides a useful tool for understanding the intricacies of interactive play because it emphasises how the text responds to player actions, making it dynamic and alterable.

It is important to note here that my work is by no means attempts to identify videogames as purely narrative experiences. Instead, it posits that the manner in which these narratives are structured, alterable, and reactive is nuanced and requires further study. Aspects of gameplay can influence narrative, as is explored in later sections of this thesis, and these sections of narrative can affect the player's interaction with the gameplay.

1.3 Active and Passive Texts

Active texts invite action from their audiences and provide reactions to that action, while passive texts provide set events to their audiences which cannot be altered. Videogame texts can be considered active in their impact on the player, in that they invite action from player and provide a reaction to that action. This does not mean that videogames are solely active experiences; in fact, they rely on passive elements to establish much of their structural framework. However, the aspect that makes them effective for play is their ability to respond to the player in an active manner. While the notion of active and passive texts can encompass a wide variety of media, it needs to be

deconstructed to approach a more specific understanding of how it affects narrative interpretation.⁶ This step is integral, as it allows for videogame narratives to be approached with the considerations of both telling a story and providing action to the player. However, before beginning with this distinction of texts and audiences, narrative must first be defined.

Jesper Juul provides several definitions of narrative provided by a range of scholars in *Half-Real* (2011, pp. 156-158), listing them as:

- The representation of a series of events (Bordwell, 1985; Chatman, 1980)
- Fixed and determined events (Brooks, 1984)
- Specific sequences of events (Prince, 2003)
- As a specific type of theme (Grodal, 1997)
- A fictional world (Jenkins, 2003)
- A method of understanding the world (Schank & Abelson, 2013)

Due to this range of terms for narrative, this thesis considers its meaning within two different approaches. The first approach is “passive narratives”, which refers to a static structure of the videogame text. The second approach is “active narratives”, and this refers to a narrative that can change through the actions of the player and the reactions of the text. This means that the manner in which videogames are perceived, designed and experienced is a combination of these two narrative types.

Active narratives account for the ability of the player or audience to choose their actions within a range of events that are afforded by the text. Affordances are the ways in which the text allows for actions to occur within the videogame, such as health pickups affording the player an ability to regain health (Pinchbeck, 2007). The same notion of affordance can be thought of in the construction of narrative within videogames, allowing players choices which in turn have consequences. Thus, active narratives are better understood as fictional worlds (Jenkins, 2003), a method of understanding the world (Schank & Abelson, 2013, p. 47) or a type of theme (Grodal, 1997, p. 67). Rather than depending on a singular sequence of events, active narratives encompass multiple events that the player can explore in any order. Explaining narratives as themes, fictional worlds, or methods of understanding the world broadens the scope of what narrative can be. Rather than a fixed sequence of events, it can be many dynamic sequences that audiences choose via their

⁶ Other analysis includes Kurt Squires’ “Video-Game Literacy” (2008), which points to the product of play as a method of reading a text. Although this analysis points in a promising direction, it only hints at how play operates in an equivalent way to reading.

play. Activeness in this thesis includes discussions of agency, interaction and feedback. Agency refers to the ability of a player to affect something within a videogame, including narrative (Murray, 1997, p. 126). Considering the text as reactive is of prime importance, as it showcases how narratives in the *Fallout* videogames are active when compared to other videogames and texts.⁷

Passive narratives can be defined as ‘fixed and determined events’ (Brooks, 1984, p. 4), a ‘representation of a series of events’ (Bordwell, 1985, p. 82; Chatman, 1980, p. 22) or a ‘specific sequence of events’ (Prince, 2003, pp. 1955-1957). Passiveness is when the text places the audience as an observer of the text, and so they cannot change the events of the text. Examples of this type of narrative include most movies and television shows, as the audience cannot act on the medium to affect the sequence of narrative events.

The formation of active and passive narratives is primarily influenced by Mihaly Csikszentmihalyi and others’ “The Ecology of Adolescent Activity and Experience” (1977) –which notes a divide in engagement between different activities by adolescents – and the discussion of flow in various activities in Mihaly Csikszentmihalyi and Isabella Csikszentmihalyi’s *Optimal Experience* (M. Csikszentmihalyi & I. Csikszentmihalyi, 1992, p. 45; M. Csikszentmihalyi & I. Csikszentmihalyi, 1992, pp. 361-363). Csikszentmihalyi’s work determines that there is a divide between passive experiences – such as reading a book or watching a movie – and active experiences – such as engaging in a sport or craft (Csikszentmihalyi et al., 1977, pp. 249-251).

Csikszentmihalyi does not examine in detail the specific types of activities that stimulate flow, or the differences between said activities, but he does suggest that reading books or watching television are less conducive to this idea of flow when compared to other more active activities (M. Csikszentmihalyi & I. Csikszentmihalyi, 1992, pp. 62-75). Csikszentmihalyi presents flow as a state in which people are sufficiently challenged by a task as to consider it difficult, but are competent enough to overcome this difficulty. Although Csikszentmihalyi is investigating the experience of these activities, his work can be utilised to examine the types of interactions of which media is capable, as evidenced through John Sherry’s work “Flow and Media Enjoyment” (2004). Sherry argues flow is evident in videogames because of the skill required to ‘read the text’ (2004, p. 332) and the reaction that such videogames provide (2004, p. 339). Ben Cowley and colleagues echo this sentiment in “Toward an Understanding of Flow in Video Games” (2008), as does Seung-a Jin in “I

⁷ Further on this exploration of activeness in texts is N. Katherine Hayles’ *How We Became Posthuman: Virtual bodies in cybernetics, literature, and informatics* (2008) or Brendan Keogh’s “Across Worlds and Bodies” (2014). These texts explore the role of the player as an operator who essentially drives the operation of electric literature. This focus situates audiences as being more integral to the ‘reading’ of electronic texts but does not emphasise the importance of the text in this process. By contrast, I focus on how the text provides a platform for players to be active within.

Feel Present. Therefore, I Experience Flow” (2011); both suggest videogames are conducive to flow because of their mixture of feedback, challenge and skill.

My argument focuses on Csikszentmihalyi’s collaborative works as narrative needs to be distinguished as more than just the ‘form of the past’ (Frasca, 2003, p. 233). Through presenting narrative sections of videogames as active narratives, the framework of understanding narratives changes from a static structure to a dynamic one that can be affected by audiences. Videogame scholars such as Dan Pinchbeck, Espen Aarseth, Hans-Joachim Backe and Marie-Laure Ryan also provide their own approaches to explain how narrative is active. These scholars each present a new method of approaching narrative studies in games within the active narratives category.

The distinction between a set structure and a structure that relies on the user to progress may appear to create a tension of epistemologies: a tension between a structuralist approach and a user-centric approach. However, this is not the case. Much as Roger Caillois establishes a distinction in *Man, Play and Games* between *ludus* (rules) and *paidia* (free play), the overarching structure of the *Fallout* series is a passive narrative that supports sections of active narratives in the text. This does not mean that player choice does not exist in these videogames; rather, the player determines what occurs within a range of set narratives. Much like the progression of tabletop *Dungeons and Dragons* games, or audience participation in theatrical productions, these games incorporate aspects of their audiences’ desires within the set narrative. Consequently, player experience is still accounted for within the range established by the text.

Videogame narratives do not always actively invite participation from an audience; audiences can often act without impacting the narrative structure of a videogame. The concepts of activeness and passiveness can be further divided into when the narrative is active or passive, and when the audience is active or passive. Such demarcation can be seen in sections of videogames where the narrative is presented in a manner that cannot be affected by the audience, such as with cutscenes (Ip, 2011, pp. 104-105), or areas of ‘general play’ where the player is free to act but their actions will not progress the narrative, seen in the discussion of game time (Juul, 2011, pp. 141-155). From these analyses, the narrative can be understood as not always active and responsive to the player’s actions.

Espen Aarseth’s *Cybertext* (1997) is used to enhance the discussion of how non-digital texts can be considered active. Tom Apperley’s “Genre and Game Studies” (2006) and David Bolter and Richard Grusin’s *Remediation* (2000) facilitate the identification of how form and content make a text active. Through this discussion, the media identity of videogame narratives can be interpreted as a mixture of both fixed and alterable elements.

The structure of these both active and passive narratives is the next area to be explored. The discussion in section 1.5 “The Narrative Structure” explores Barthesian narrative structures and their application in videogames. The design of the *Fallout* videogames takes the unique position of enabling a static path of narrative that is traditionally seen as passive for audiences, while also creating alterable aspects that respond to the player’s actions. As I am concerned with how narrative is structured, it needs to define the static elements of beginning, middle and end, and the alterable elements, to appreciate the manner in which videogames are active.

These definitions facilitate further exploration of audiences as both active and passive participants. It is integral to explore the position of an audience in the context of narrative creation, as a videogame or indeed any activity cannot be seen as interactive without players (Ermi & Mäyrä, 2005, p. 15). Prior studies into the active nature of videogames have focused on how players have acted within a text, focusing on the ability of the player to choose an action (Thue et al., 2010, p. 211), with a growing focus on how videogames present these choices to the player (Squire, 2006, p. 21). While the impact of text has already been explored at this point, the range of action available to the player needs to be examined.

These definitions are necessary in order to focus on how the videogame narrative is designed with a range of responses that are based on the player’s actions. The narrative simultaneously allows for a set path, in that the player will need to complete certain tasks to finish the videogame, and also offers other actions which are optional but will nevertheless influence the text’s responses to the player, while also allowing for the player to have their own range of actions that have little to no effect on the narrative of the videogame.

1.4 Passive and Active Narratives

Passive narratives can be considered as texts that are designed to exclude audience interaction.

Audiences cannot affect these types of texts except by circumventing the intended narrative in the text: for example, skipping to the end of a novel or film to discover the conclusion. Although this is an action audiences can take, it is not considered to be engaging with the text directly. In these passive narratives, the structure of the text is unalterable as far as the audience is concerned, and as such an audience’s primary interaction is interpretation. The audience’s literacy with the media form and the genre determines their enjoyment of the interpretation. Fandom and audience participation can also provide a conduit for consumption of the text. However, the text itself invites no particular action on behalf of the audience beyond the interpretation of what is occurring on the page, screen or stage.

Active narratives change the relationship between the text and the audience by enabling them to co-create with the text. Thus, activity within the scope of the interpretation of the text is possible if the text invites the audience to choose a different passage to read or to watch a deleted scene. In this way, the audience is invited to change the structure of the text to reveal alternatives to the events that would normally occur. Examples of this in cinema include *Clue*, which included various endings for cinematic release, although audiences only had minor control over which ending they would encounter (based on the cinema they would go to). Here, the fact that the text could change means that it could be seen as active. However, this example only provides a limited scope for the text to respond to audiences.

Espen Aarseth's introduction in *Cybertext: Perspectives on Ergodic Literature* (1997) identifies a range of texts that require a 'working through' by the audience to be understood, such as the Chinese classic *I Ching*, Marc Saporta's *Composition*, and Ayn Rand's *Night of January 16th* (1997, pp. 9-10).⁸ In each case, Aarseth discusses the element of choice offered by these texts: the *I Ching* provides a sequence of randomised couplets determined by the player's throwing of coins; *Composition*'s unbound pages allow the reader to read in a sequence of their choice; and *Night of January 16th* bestows the audience with the decision as to how the theatre production ends (with either a guilty or not guilty verdict). Each text increases in the degree of activity required by the audience: *I Ching* changes randomly, *Composition* allows for the audience to choose their own story, and *Night of January 16th* requires the audience members to become members of the cast and allows their interpretations of the play's events to dictate its conclusion.⁹ Each of these examples allows the audience to do more than simply observe; instead they must involve themselves in the construction of the narrative.¹⁰ Although the outcomes are foreseeable, the variation offered to the audiences is what makes these texts active. This sentiment echoes Csikszentmihalyi's observation that all that is desired 'in play is the passive acceptance of variability in fateful circumstances' (M. Csikszentmihalyi & I. Csikszentmihalyi, 1992, p. 45).

⁸ Espen Aarseth makes use of the term 'ergodic literature' to describe texts as a labyrinth that the audience needs to work through. At a glance, this description of ergodic (a collaboration of 'ergon', to work, and 'hodos', the path) presents a similar concern for me in terms of treating videogame texts as active narratives. However, Aarseth's ergodic literature does not demand feedback from the text, but rather considers the action to take place from the audience. This thesis focuses on the construction of the text to allow for its own activeness, as well as that of the audience.

⁹ Further examples are provided by Souvik Mukherjee in *Video Games and Storytelling* (2015, p. 98). Mukherjee, like Aarseth, highlights the non-digital possibilities of active narratives.

¹⁰ Henry Jenkins' term spatiality found in 'Narrative Architecture' (2004) can be used to further this notion of 'enacted space'. Jenkins applies the notion of narratives as a series of physical structures (evocative space, enactive stories, embedded narrative, and emergent narrative), with which the player is able to affect change. This direction of inquiry is effective, but for the purposes of this paper the theory of affordance, seen in section 3.1, is used instead.

The extent to which a text can be passive or active depends both on the form of the media (Bolter & Grusin, 2000, p. 81) and its content (Apperley, 2006, pp. 7-8). Due to its digital form, a videogame is able to quickly change the structure of its narrative (or even gameplay) based on quick calculations. However, if a videogame is designed without the capacity for narrative changes, such as *Doom* with its single, inevitable ending, then it will not have an active narrative. Tabletop games, lacking the digital calculations of the computer, can still be designed with content that allows for variation in play. *T.I.M.E. Stories* and *Dead of Winter* showcase this phenomenon, as does *Dungeons and Dragons* (Costikyan, 2010, pp. 47-48; Mona, 2010, pp. 25-28). Indeed, much of the inspiration for *Fallout* came from the playing of *Generic Universal RolePlaying System* (GURPS) a tabletop game; one of *Fallout*'s design goals was born out of the desire to create a narrative that was reactive to the player's actions. *Fallout*'s original lead developer Tim Cain identifies his GURPS campaign experiences as a key influence on the development of *Fallout*, noting that enabling 'different outcomes' was desirable in these types of games:

I would run GURPS and DnD (*Dungeons and Dragons*) campaigns and I'd run different groups through it. I'd make one little module and I'd run different groups through it to see how they'd play and it was remarkable. We played a GURPS dungeon – it'd only have five rooms – and I'd play three different groups through it and have three completely different outcomes. And so we'd all sit and talk about that afterwards, and that was probably the genesis of 'Hey, how can we make one game that people can play in lots of different ways and outcomes?' (Appendix 8.1)

To this end, the content of active narratives is seen as important, rather than the form. The structure of Tim Cain's GURPS campaigns accounted for the potential actions of the players, enabling their actions to have consequences within the narrative. If a narrative allows player action without consequences, then the player is just interpreting the text, which means the narrative is passive. Videogame activeness is thus tied both to the physical capabilities of its medium, and to this medium's content (Carroll, 1985, p. 18). Such differences can be easily considered in the scope of new media studies, as Jon Dovey and Helen Kennedy note within their conceptualisation of internal (content) and external (media form) representation (2006, pp. 32-34). The content of the medium is largely what stimulates the text to be active in its narrative, though it does not necessitate activity within the narrative. Within this schema, passive narratives provide certain areas in which the player is unable to act and must observe. In a passive narrative, the story is told to the player, not co-created with the player's actions in mind.

The presentation of passive narratives can be likened to *ludus* from *Man, Play and Games* (Caillois, 1961) in that these elements are designed to shape the overall experience of the game through the guiding rules that they provide (1961, 13). The player's actions can likewise be seen in the explanation of *paidia* (1961, 13-27). *Paidia* requires the overall structure of *ludus* to exist as a moment of 'free form' play (McGregor, 2008). Within Hans-Joachim Backe and Gonzalo Frasca's narrative exploration of videogames, the similarities between Caillois' structure of games and a structuralist approach to narrative are established as self-evident through the way videogame narratives operate. As *ludus* is defined as a set of rules, and passive narratives are identified as a sequence of events, the link between the two is considered self-evident.

For Frasca, *ludus* is akin to the 'fated' aspects of Marxist theatre, which cannot be altered. As such, the script forms the *ludus* or the rules of the production. The *paidia* is seen in the ability for audiences to involve themselves in these productions, such as in Augustus Boal's *Theatre of the Oppressed* (2000), which allows the audience to take part and alter some parts of the play, but not change the overall 'fate' of the piece (Frasca, 2003, p. 228). The fact that theatrical productions allow for audience participation and indeed audience impact on some parts of the performance permits a set narrative to take form, while also ensuring that it can be influenced by audience members who are now avatars in this performance.

Hans-Joachim Backe takes a slightly different approach by equating the structuralist approach – seen in Seymour Chatman's *Narrative Discourse* (1980) and Roland Barthes' "Introduction to the Structural Analysis of Narrative" (1978) – to the rules that Caillois presents. Backe argues that 'in any text that is supposed to produce a coherent story, there has to be the deep structure of Barthes' cardinal functions' (2012, p. 248), equating *ludus* to the structures of Barthes' structuralism. The *paidia* within Backe's piece is seen in the division of *ludus*: 'aimless play ... might be referred to as the substructural level of games' (2012, p. 252). The *ludus* of the overall game world rules provides a structure that houses smaller sets of play: the *paidia*.¹¹

The similarities of Roger Caillois' *ludus* and *paidia* to the work of Hans-Joachim Backe and Gonzalo Frasca reveals the similarities between notions of structured games and structured narratives in videogames. The distinction between active and passive narrative furthers this analysis, aiming to provide more nuance to the role of active and passive narratives within the *Fallout* franchise. These

¹¹ Further interpretations of Roger Caillois' work by Backe can be seen in "Caillois Revisited: Towards a General Theory of Games and Rules" (2008). In this work, Backe broadens Caillois' distinctions of play to include *ilinx*, *mimicry*, *agon* and *alea*, and proceeds to introduce a model of play that combines each of these aspects of play. This research presents a new application of Caillois' definitions to videogames, but not to narrative studies within videogames.

passive narratives and active narratives can be further understood through Roland Barthes' concept of narrative structuralism.

1.5 The Narrative Structure

Roland Barthes' "Introduction to the Structural Analysis of Narrative" (1978) is a foundation for a way to understand active and passive narratives to be designed structures. For Barthes, narratives can be broken down into 'smallest narrative units' (1978, p. 88) that when deconstructed allow for a text to be viewed in four different ways: for its cardinal functions, catalysts, indices and informants.

A cardinal function or nucleus 'initiates or resolves an uncertainty' (Barthes, 1978, p. 94), and creates the crisis or resolution points of a story. Barthes considers cardinal functions to be the 'risky parts of narrative' (1978, p. 94) in that these sections contain the most tension and essentially make the narrative what it is. Catalysts are described as 'minor incidents or descriptions' (1978, p. 94), that arrive or leave from the cardinal functions. In this role, these catalysts are understood as facilitating the development of cardinal functions. The narrative events of the text can be considered as a combination of both cardinal functions and catalysts as they are the units where action occurs.

Barthes describes informants as 'bits of information' that 'provide pure, locally relevant data', while indices are described as 'referring to a personality trait, a feeling or an atmosphere, a philosophy' (1978, p. 92). Indices are presented in a broad sense, as evidenced by the various definitions that Barthes offers: a feeling, a trait or a philosophy can encompass a number of notions within any text. As such, this term is better suited to considering the other qualities of a text, such as medium-specificity, rather than a specific narrative rule.

With these four concepts, Barthes postulates that all narratives can be expressed and broken down to reveal their inherent narrative structure. Further work by Seymour Chatman in *Narrative Discourse* released in 1978 also analyses the form of narrative structures and how narratives operate. However, Chatman's presentation seems to follow the works of Vladimir Propp in *Morphology of the Folktale* (2010) and Claude Lévi-Strauss in "The Structural Study of Myth" (1955) in that his interpretation of narratives restricts them to certain types, rather than more minute details of action and description. It is important to note that the *Morphology of the Folktale* was first published in 1928 and "The Structural Study of Myth" in 1955, both before Roland Barthes' "Introduction to the Structural Analysis of Narratives" in 1975. As such the works of these prior scholars has influenced Barthes work, and indeed been further carried out by Seymour Chatman in a later work (1980). Notably, these definitions from Barthes' work provide a method for interpreting passive narratives and can also be applied to active narratives such as videogames.

Such narrative structures can be applied to videogames, as seen by Hans-Joachim Backe in his article “Narrative Rules? Story Logic and the Structures of Games” (2012). Backe provides an explanation for how narrative operates using both Barthes’ and Chatman’s narrative structures (Backe, 2012, pp. 243-244), and combines it with a discussion of game rules as taken from Roger Caillois’ *Man, Play and Games* (Backe, 2012, p. 249). This combination of both narrative structures and game rules facilitates a crossover of ludic considerations in videogames. However, Backe’s analysis does not provide detail of how these Barthesian structures operate within videogames – only that these structures *can* be applied to videogames. I attempt to provide such detail by incorporating Barthes’ narrative structures, to videogames following aspects of Backe’s approach.

Videogame narrative structures are divided into cardinal functions, which structure the text and effectively operate as passive narratives, and catalysts, which are optional activities in the text, and are broadly defined as the player action that leads to these cardinal functions. Cardinal functions are unalterable to the player; instead, the range of player actions in cardinal functions is less than in other areas of the videogame.

Cardinal functions are the set events of the videogame that coincide with the Aristotelian ideal of beginning, middle and the end (Jacobs, 2007, pp. 25-26; Frasca, 2003, p. 230). These cardinal functions – a beginning, middle and end – effectively relate to the events of a videogame’s main objective or main quest. The beginning and ending of the videogame indicate the respective beginning and end objectives, whereas the middle cardinal function or ‘objective’ changes depending on the videogame. Cardinal functions situate the player within the videogame, establishing motivation and a sequence of events that need to occur for the videogame to finish. These are largely framed in their overall narrative function: a beginning will start the game with an initial crisis, a middle will resolve the initial crisis and introduce a new crisis, and the end will resolve the final point and the game. *Bioshock*, as an example, introduces itself with the crisis of stopping Andrew Ryan, the middle involves the resolution of this initial threat introduces the new crisis in Fontaine, and the end has the player defeating Fontaine and ending the videogame. In this regard, cardinal functions are passive narratives that establish events for the players.

How these cardinal functions operate is where the player’s actions come into play, and this is where the active narrative can be seen. The player interaction in these cardinal points can alter how the cardinal function progresses, but not the event itself. For example, the player’s choice of gender at the start of a role-playing game may affect how they are addressed in dialogue. The player can change some “cosmetic” aspects of the cardinal function – dialogue or reactions from non-player characters – they cannot usually change the function of the event in the overall narrative structure.

The same occurs for the end cardinal function of these videogames: the player may be able to affect how well they are able to complete the videogame; however, regardless of what the player does, the main quest will be resolved and the videogame will finish. In this regard cardinal functions can be seen to bookend videogame play, restricting the range of action available to a player.

The middle or crisis point can be seen as the outlier of these cardinal functions. Middle cardinal functions nominally restrict the player through the resolution of the original cardinal function and the introduction of another crisis. However there is a greater variability to how the middle cardinal function is approached and how it can be resolved, compared to the restrictive beginning and end. There are exceptions to this presentation of story within roleplaying games, such as *The Witcher 2: Assassins of Kings*, whose sprawling narratives place the player in very different roles depending on their choices (Thon, 2015, pp. 110-115), or *Dragon Age II* where the player is able to have different outcomes for their middle cardinal functions. These videogames still make use of cardinal functions as the player still must arrive at a middle cardinal function; it is just that there is further variation on what the player can affect, and the middle cardinal function has more catalysts that can support this variation.¹²

Catalysts can be seen as player action in the in-between periods of different narrative segments, but they further the player's preference for different results in cardinal functions. Barthes describes catalysts as the events leading up to or away from cardinal functions; catalysts can be thought of as designed points that the player can explore, such as side quests. Catalysts can also be thought of as player actions, the actions that are not designed but performed by the player to arrive at the cardinal points – the movement, combat, and puzzle solving that the player does. For now, catalysts will be examined as the paths that are given to players to help them progress through the main quest.

Side quests can be considered primarily as catalysts, as they operate in-between the main narrative "beat". Yet, as these side quests operate as narratives within a larger structure they also contain beginnings, middles and ends, and have their own cardinal functions. However, unlike cardinal functions, the incidental nature of these side quests means that they can enable a much wider range of actions from players. Players are able to fail side quests and still continue onwards through the main quest. Failure in this instance refers to an inability to progress the side quest, this can include the death of the player's character – resulting in the end of the game or loading up a saved game –

¹² Section 3.5 'Main Quests as Active Narrative' explores how catalysts can contribute to this middle cardinal functions.

but can also mean an inability to complete an objective – stop a villain in 5 minutes – leading to a different ending to the side quest – the villain escapes.¹³ If a player fails a main quest or a cardinal function, the story must end as the failure to complete an objective means that a cardinal function cannot be reached, completed or fulfilled, and in most cases halts the videogame. There are inbuilt methods of allowing the player to reload – to go back to an earlier point in the videogame’s narrative so that they may retry the cardinal function, so as not to prevent the player from completing the narrative (Atkins, 2007, pp. 239-240).¹⁴ However failure within side quests does not necessitate the stopping of narrative, and thus failure is a possible narrative option for players. There is more leeway in what results can occur within catalysts side quests due to its non-critical role in the overall structure.

For Roland Barthes, informants and indices are the descriptive elements of the narrative; and as such, much of the previous analysis of informants and indices within videogames focuses on the visual, aural, haptic and general design elements. In this thesis, informants and indices are used to examine how particular scenes are conveyed, which serves to support an understanding of the videogames’ catalysts and cardinal functions. This aspect can be considered world building¹⁵ and allows for the rest of the narrative to be seen as immersive. The extensive utilisation of informants and indices allows deeper investigation into the manner in which the *Fallout* franchise’s environment explores narratives (Carson, 2000; McDaniel et al., 2010, p. 25).

The activeness of a text can be understood through both cardinal functions and catalysts. This definition of cardinal functions and catalysts recognises that the player as well as the developer has a role in progressing to the next aspect of the narrative. Hans-Joachim Backe breaks down the text into macro, micro and substructure to show how each part of the text contributes to the design of the videogame’s narrative (2012, pp. 254-255). And so, it is possible to combine Backe’s deconstruction of the text and to Roland Barthes’ narrative framework.

Cardinal functions shape the narrative and provide a static framework, and as such, players have a less active role in the progression of the narrative. Main quests as cardinal functions are explained at

¹³ For more information into how *Fallout* incorporates ‘failure’ see section 3.3.2 “Game World Effect and Overview”, and section 3.5.3 “Active Narrative Main Quest Analysis”

¹⁴ Barry Atkins also provides a diegetic example through a case study of *The Prince of Persia: The Sands of Time*’s rewind ability, which provides the same functionality as reloading a saved game, just through an in-game explanation (2007, p. 243). Further exploration of this ability to reload in videogames and its effect on narrative can be found in Adam Ruch’s “This isn’t Happening: Time in Videogames” (2013).

¹⁵ For further exploration of this concept, see Mark Wolf’s *Building Imaginary Worlds* (2014), which details the history of imaginary worlds and the authors who are the ‘world builders’ of these fictional worlds. The developers of *Fallout 1* have expressed their intention for *Fallout* to be one of these imaginary worlds. Much as each instalment of *Fallout* contributes to the notion of the *Fallout* world, so too have other media sources such as *Star Trek* and *Star Wars* made use of this concept.

length in the second chapter through the case studies of *Fallout 1*, *Fallout 2* and *Fallout 3* as passive narratives, while in the third chapter *Fallout 4* and *Fallout: New Vegas*' use of cardinal functions is explored as being more constructive for active narratives.

Side quests as catalysts allow for a wider range of possibilities in the range of actions that a player can take within these smaller designed moments of active narrative. These side quests as catalysts can be seen in the third chapter's discussion of side quests in *Fallout 1*, *Fallout 2*, *Fallout 3*, *Fallout: New Vegas* and *Fallout 4*. These catalysts can furthermore affect the main quest, which can be seen in *Fallout 4* and *Fallout: New Vegas* in the interrelated nature of side quests that do not change the occurrence of cardinal functions (as this is impossible), but rather the results of these cardinal functions. The relationship of these side quests to each other and to the main quest changes in each videogame, yet their function remains consistent throughout: to provide a reaction to the player.

Player actions as catalysts are necessary for the player to act in the videogame, in the moment-to-moment periods of gaming, walking, shooting and progressing to the next level, thus satisfying the audience's expectation of activeness. This type of catalyst and audience interaction will be explored in the following section.

These three distinctions, cardinal functions, catalysts, and player actions are the narrative foundations of the text which showcase a range of activeness in the *Fallout* franchise. While there is a predefined narrative in each of the *Fallout* videogames, this is only a supporting structure for the activity of the player and the reactivity of the text. The text is the main focus of this study however, it is also important to examine the audience to understand how their activeness and passiveness relates to the narrative structure of the videogame.

1.6 Passive and Active Audiences

This section offers some conceptual framework for how audiences act and interpret within videogames, and establishes the concepts of active and passive audiences. This section adapts Dan Pinchbeck's discussion of affordances and Marie-Laure Ryan's notion of feedback to provide details on the manner in which audiences operate with texts. This analysis focuses on how the audience can operate within the guidelines provided by the text – its 'affordances' – before providing action to which the text responds as feedback.

The exploration of audience action originates in media studies, through the works of Marshall McLuhan and Stuart Hall. Such works, particularly Hall's "Encoding/decoding" (1980, pp. 128-138) and McLuhan's *Understanding Media* (1994), provides a wealth of information on how audiences can interact with a passive text through their interpretation of the text. Though these media scholars' analyses are satisfactory for passive texts, and indicate a direction for further media

scholarship, they do not provide this thesis with a robust framework for a text that allows action on the part of audiences to change the narrative. This is why Mihaly Csikszentmihalyi's work heavily influences the distinction I make between active and passive texts. Jon Dovey and Helen Kennedy in *Game Cultures: Computer Games as New Media* provide an overview of the difficulty of differentiating between audience action and interpretation:

Conflating 'interactive' with 'actively interpreting'; as Manovich and Aarseth both do, does not help us to differentiate between texts. If we accept that we are all already engaged in active, interpretive relationships with all media texts, then how do we distinguish between a film, TV programme, computer game or website? The problems which face us in understanding the processes of mediation are multiplied by new media: the acts of multiple active interpretation of traditional media are not made irrelevant by digital and technological forms of interactivity but are actually made more numerous and complex by them. The more text choices available to the reader/viewer/user/player the greater the possible interpretative responses. (Dovey & Kennedy, 2006, p. 6)

It is the distinction between the interpretation of a text and the action within a text, influenced by Csikszentmihalyi, that allows for an interpretation of audiences as part of the activity of the text. In this regard, media-studies analyses of audience action consider the act of interpretation to lie in actively interacting with the message of the text, while my work focuses on how the audience can act in dynamic texts.

The different media of the *Star Wars* franchise can further illustrate the distinction between these forms of audience activity. An individual who thoroughly enjoys the *Star Wars* series may watch and actively interpret each of the *Star Wars* films to the extent that they start to extrapolate different theories about the various messages contained within the films. By contrast, the *Star Wars* computer games, such as *Knights of the Old Republic*, allow the audience to act in a variety of ways, which lead different events to occur in the videogame. The audience is active in interpreting the text, and is further active in performing acts in the text, to which the text then responds. Both situations represent audience activeness; however it is only within videogames that the audience's actions directly affect the progression of the narrative.

A passive audience only reads and interprets the content as it progresses, without the capacity to change or alter the text. Jesper Juul's *Half-Real* describes this lack of action as inherently part of a game's fiction; the audience can extrapolate information about the narrative, but is unable to affect it (2011, pp. 121-125). For Juul, fiction in games is largely static and unalterable; however this is more an interpretation of the authored nature of videogames. Players are at the mercy of whatever

action the text affords them; but this does not mean that they necessarily have no ability to perform actions, merely that they operate within the limits of the text. Indeed, even in active narratives there are sections where the audience is encouraged to be passive, to interpret information, but these sections often influence the player's active participation later.

An active audience can occur when players are able to act through the affordances of the text, this means that the range of player action is limited by what actions the text allows. These player actions do not necessarily change the text, but allows the player to move through it. This activity is much like navigating a maze or a labyrinth (Aarseth, 1997, pp. 4-5; Golding, 2013, p. 121, p. 123): as players become more aware of their abilities they are better able to traverse the game world. The player may act, but does not alter the narrative outcome of the experience. Almost all videogames can therefore be considered to have active audiences, in that some level of action is allowed in the videogame. This thesis extensively discusses such notions in order to analyse how audiences can affect the narrative.

The identification of an audience as active or passive refers to the degree to which the player can act within a videogame's narrative. Many scholars, including Alex Galloway and Hans-Joachim Backe, have described a similar range of opportunities for the player to act; however their analyses of play rely on the range of action available to the player – what the videogame allows them to do. Players can interpret events throughout a videogame to gauge what is occurring, but they can only occasionally act on those interpretations through the affordances given by the text. Studies concerning this separation include Barry Ip's "Narrative Structures in Computer and Video Games" (2011) or Rune Klevjer's chapter "Cut-Scenes" (2014). Both papers identify a separation of play and narrative that can occur within videogames. These scholars identify different periods in which the player is unable to act – namely, cutscenes – and the subsequent allowance for action in a variety of videogames ranging from *The Legend of Zelda* to *The Secret of Monkey Island* (Ip, 2011, pp. 104-108). Consequently, players of these games are neither exclusively passive nor active; rather, they exhibit a range of varying interactions.

Portal, for example, provides an interactive cutscene in which players have less action available to them so that they will listen to the narrative, and then after this narrative has been provided, players are allowed to interact more freely with the world (Golding, 2013, p. 125). The player is less encouraged to act in the game world when presented with narrative content such as dialogue, text, music and videos. Instead, such design encourages players to be passive – to focus on interpreting the content. By contrast, the player is encouraged to act to change their situation through events that occur to and affect them. In this sense, players are not solely passive or active, but rather are

engaged in a constant state of feedback where they interpret and act throughout videogames. It is only when the player-character needs to stop and interpret the content for the purposes of narrative that their range of action is reduced. This reduction of available action depends on the narrative content of each videogame and so will be discussed with examples later in this introduction.

In a sense, most games provide a consistent feedback loop of interpretation and action to encourage play. This can be seen most clearly within first-person shooters and platformers, which enable the player to move their character around while the game actively responds to the player. This active response can take many forms, such as indicating if their character is injured (Aarseth, 1997, p. 65). This type of feedback is one of the most prominent features of videogames (Abrams & Gerber, 2013, pp. 95-96; Apperley, 2006, pp. 11-12; Newman, 2013, pp. 24-26), and is frequently discussed in relation to Csikszentmihalyi's 'flow'. These scholars state that feedback is critical to the attraction of videogames. However, to understand the impact of such feedback, it is critical to discuss how games encourage it.

A more nuanced discussion of feedback is provided by Dan Pinchbeck's use of affordances in his works "Counting Barrels in Quake 4" (2007) and "An Affordance Based Model" (2009). Both works use the notion of affordances from James Gibson's *The Ecological Approach to Visual Perception* (2014, pp. 119-135) to explain the possible abilities offered to the player in the text. For example, 'a floor in *Quake 4* affords the action of walking upon; a health kit, when activated by co-location, affords a state change to the avatar' (2007, p. 9). The player's action of picking up a health kit influences their avatar's interaction with the text, and they receive more health. Although James Gibson originally used affordances for ecological purposes – to 'impl[y] the complementarity of the animal and the environment' (2014, p. 119) – they can be readily applied to the interrelationship of the player and the text. Thus, the notion of affordance views the text as a foundation that allows the player to act. The text then reacts to this action, and can go on to provide another affordance to the player. This cycle of affordance from the text – action from the player, reaction from the text, and further provision of affordance – provides the player with feedback for their actions.

This simple definition of feedback seems to indicate that all videogames can have active narratives. Shooters, puzzle games and card games all provide some sort of feedback as to whether the player is doing the right or wrong action to win the game. However, as the thesis' is questioning the structure and the reactions that can occur within narratives, the exploration of activeness in videogames in relation to narratives. This focus allows a distinction between active narratives and passive narratives, which in turn enables greater scrutiny on what videogames provide to their players as narrative action.

Feedback can and does occur in the narrative components of videogames, and provides players with a degree of control over the way that the narrative can operate (Ryan, 2015, pp. 5-7). This type of narrative feedback treats the player-character as an aspect of the narrative through the actions they perform and the manner in which the text responds. These responses are a powerful narrative device that, when incorporated into games, gives a far greater sense of scope to the game, because there is a greater depth of available narratives (Bushnell, 2016, pp. 65-68). Although the range of responses depends on the videogame and which section of the videogame is analysed, I focus on alteration to the narrative structure within such a feedback loop in order to more strongly examine active narratives.

Such an analysis conceptualises audiences moving between active and passive roles: the audience interprets narrative events as they occur, and also provides the action appropriate to the situation. The positioning of these events is predetermined by the construction of the narrative structure, through the scope of the affordance it allows to the player: a limited affordance usually means the player will focus on the narrative content of a videogame, and a wider affordance encourages the player to act.

1.7 Modes of Passivity and Activity

A videogame narrative can be identified as an active text that can contain four different modes (see Figure 1 for more detail):

- Active narrative: the narrative alters itself in response to audience actions.
- Passive narrative: the narrative presents information to the audience.
- Active audiences: the audience absorbs information and acts upon it.
- Passive audiences: the audience absorbs information, and does not act.

These modes intermingle during gameplay, but for a narrative to be considered truly active it must include action from both the text and the audience. These four terms enable the analysis of narrative, or more specifically the text's response to player action. Thus, these terms allow for an account of the narrative of the text that is separate to player action. Players can do whatever they wish within the affordances of the videogame as an active audience; however, not all actions by the audience will cause a narrative reaction from the videogame. It is only when there is interplay between what the narrative affords and the player's action that the text has an active narrative.

	Passive	Active
Narrative	<p>Passive narrative – whereby the text presents its narrative and provides the audience with no intended method of action which could alter the narrative’s progression.</p> <p>For example: <i>Carmen</i>, <i>Dune</i>, <i>Star Wars: The Force Awakens</i>.</p>	<p>Active narrative – whereby the text presents its narrative to the audience, and furthermore provides a method in which the audience can affect the direction/action of the text.</p> <p>For example: <i>Dungeons and Dragons</i>, the <i>Fallout</i> franchise, <i>I Ching</i>.</p>
Audience	<p>Passive audience – whereby the audience interprets but does not act on or with the text in a manner that invites action to take place.</p> <p>For example: reading, watching, examining are passive compared to running, jumping or fighting a text, in which case action is performed towards an object.</p>	<p>Active audience – whereby the audience is able to interact with a text in a way that is meaningful to the audience.</p> <p>This includes action that is not accounted for the text, but is made meaningful by the audiences’ actions.</p> <p>For example: disrupting a theatrical production, re-writing a section of a novel, drawing over images in a comic book, or dubbing over dialogue in a film or movie.</p>

Figure 1: Active and Passive narratives and audiences. Source: Self.

Alexander Galloway’s *Gaming: Essays on Algorithmic Culture* (2006) distinguishes between diegetic and non-diegetic videogames, and also considers the importance of the machine and operator (2006, pp. 1-38) – conceptual distinctions that parallel my presentation of active and passive texts. Galloway differentiates audience control from videogame control, and distinguishes the content of the videogame from the videogame’s rules. The division of diegetic and non-diegetic content represents a separation of gameplay and narrative, and Galloway’s concept of the machine-and-operator relationship finds its equivalent here in the relationship between the text and the player which is further explained in section 2.1 “Passive Narratives as Cardinal Functions”. Galloway’s work provides a robust understanding of different types of actions that videogames perform, and hence serves as an overview for understanding videogames. However, such a broad focus does not allow videogames to be more specifically explored. As such, I provide a case study of each of the *Fallout* videogames to examine the specifics of narrative action in each of these videogames.

1.8 Catalyst Audience Narratives

Players can act within the structure of a videogame to create their own stories and in the process attempt to ignore the videogame’s authored narrative. This is a concern for a narrative analysis of

videogames, as players could potentially make narratives in any sort of videogame based on their experience of events. These player-led stories are not a focus for my exploration, but nevertheless they are part of the player's experience of videogames and this affects their, both the player and the game's, narrative. For this reason, player-led experience in relation to the authored narrative of a videogame should be examined before continuing the discussion.

Jesper Juul's essay "Games Telling Stories?" (2001) makes a distinction between players telling stories and the text's narrative. He identifies the tendency to retell game experiences as a method for constructing a narrative from any sort of experience. While retelling game experiences may be entertaining, it does not equate to the text's own narrative message. A prime example of this divide is the tension between Janet Murray's analysis of *Tetris* as a criticism of American capitalism in *Hamlet on the Holodeck* (1997, pp. 143-144), and Markku Eskelinen's argument in "The Gaming Situation" (2001) that *Tetris* does not invite such analysis of American capitalism. The analysis of *Tetris* by Murray is novel, but nothing inherent in *Tetris* lends itself to a narrative that criticises American capitalism. Rather, the player is essentially presenting their interpretations of experiences while playing *Tetris* as the narrative of the videogame, rather than describing the game's own narrative content – that is, if it has any. Hence, player-led stories can present some problems of interpretation when they contest with the pre-existing narratives of the main quest or side quest. My analysis focuses on the pre-existing narratives of the main and side quest, but acknowledges that due to the open nature of the *Fallout* videogames, player-led stories do occur and can contribute towards these pre-existing narratives.

The reason why player-led stories can occur within the *Fallout* series is that, although the series makes use of main and side quests, it also presents its worlds as simulation-like. Simulation videogames create environments based on a system of rules, but have no overall arc beyond the player's progression through the system; this is similar to Gonzalo Frasca's "Ludology Meets Narratology" (1999) discussion of *paidia*, where the setting can promote a wide variety of play. For Frasca, '[t]he ability to perform *paidia* activities is determined by the environment and the actions. By environment we mean the space where the player is real, as in a school playground, or virtual, as in a videogame. The environment includes topology, objects and other characters.' (1999, n.p.) In these videogames, players often create their own narratives by ascribing meaning to system-generated events and the setting of the game world. This type of narrative can be considered a type

of emergent narrative (Jenkins, 2004), as the videogame encourages the player to come up with such stories, as opposed to stories that are developed out of just the setting (such as with *Tetris*).¹⁶

Videogame studies can encompass players telling stories, and narratives that are derived from simulation; however such analyses focus on audience interpretations of texts. While this is a growing aspect within game studies (Egenfeldt-Nielsen et al., 2016, pp. 157-198), it emphasises the audience rather than the text. By contrast, I focus on the textual aspect of the *Fallout* videogames, examining the manner in which their narratives change as a reaction to player choices. To understand how *Fallout's* active and passive elements operate it is crucial to consider how an audience responds actively and passively to a text, as well as how the text responds to the audience. Player response is examined here to understand how audiences play the text: whether they perform actions that the game responds to, or whether they simply accept what the videogame determines is the narrative.

Following this notion of player action, there exists the possibility for audiences to subvert the videogame's affordances and use their action to go outside of set gameplay areas, allowing themselves to avoid the planned progression presented by the developer (Tanenbaum, 2013). This can be seen in speedruns, where players attempt to finish a videogame as quickly as possible, or game glitches, where the player is able to skip levels or go to sections of the videogame that would normally take much more time. This phenomenon is akin to the notion of counter-practice (Franklin, 2009), whereby the text is purposely distorted or read in a different fashion to produce a different interpretation. This disruptive play is not intended in the design of most videogames; however, even unintended disruptive play can inform the experience of the narrative.

Developers can anticipate and respond to such disruptive actions within the game's narrative, as seen in *Morrowind*, *Deus Ex* and *Prince of Persia: The Sands of Time*. Each of these videogames attempts to account for player actions outside of the expected narrative. In *Morrowind*, completing any action that prevents the main quest from being accomplished results in a notification that 'The threads of fate have been broken' (Slater, 2015, p. 162). In *Deus Ex*, abnormal events such as killing all non-playable characters (NPCs) or killing the player-character's brother provoke a negative response from the text to the player; however, the videogame will still continue (Slocombe, 2005, pp. 46-47). *Prince of Persia: The Sands of Time* addresses any unexpected action on the part of the player as a side effect of the videogame being misremembered by a narrator (Mechner, 2010, pp. 111-120). Although developers need to anticipate certain counter-practices in order to produce such

¹⁶ For further works along these lines see Stephanie Boluk and Patrick LeMieux's "Dwarven Epitaphs," (2013) and "Minecraft As a Creative Tool" by Maria Cipollone and company (2014).

interactions, the presence of these kinds of safeguards in videogame narratives shows a deep design consideration in the construction of active narratives.

However, other media rarely account for subversive interpretations of a text. Counter-practices can be established by framing these other media using the notion of active audiences acting against passive texts. An audience can interrupt a play to the extent that the performance stops (White, 2013, p. 42), while an individual watching a movie is able to watch deleted scenes instead of the theatrical release (Scott, 2010, p. 461). In both cases the audience is active while engaging with the text, which nevertheless remains static. The interrupting audience cannot change the lines the actors have learned, merely stop the play's performance. Watching the deleted scenes of a DVD does not alter the narrative of the feature film. In this sense, videogames can provide an interesting alternative, with narrative possibilities beyond older media.

Following the Fallout does not explore counter-practice within its study of the *Fallout* videogames; however, counter-practice does represent an avenue for further research. This study focuses on the manner in which the *Fallout* series guides players through its narrative structure. Such a theoretical foundation enables explorations of how these narrative structures are subverted; however, these foundations must first be established.

1.9 Active Narrative Reactions

The analysis of the player's affect on the narrative structure of a videogame relies on the interaction between the active audience and narrative, and the resultant partially predefined, partially alterable text. An example is how a game signifies the consequences of the player's actions beyond points or rankings, but rather in more narratively focused variables, such as how well a town survives with the player's help. In this context, the player's actions combine with the text's reactions to form an alterable narrative.

For an active narrative to notice the actions of the player, an element such as a "global variable" needs to detect when a certain event has happened. These are generally referred to as 'triggers' within videogames (Bateman, 2007, p. 94; Ryan, 2015, pp. 17-18). In its most simple form, this trigger can be binary (either a task has been completed or not), or a scoring system (determining whether or not a particular action has been done a number of times). This trigger is present in most games through general gameplay activities such as movement, action on objects or events occurring, all of which allow the game world to react to the player. However, the player's actions are responded to in real time, and the action may not have any influence on the game's narrative. For example, a high score in *Tetris* or *Uncharted: Drake's Fortune*, while a reflection of the player's skill, does not change the story the player experiences.

In a way, active narratives have a sense of memory: they ‘remember’ what the player has done to change the world and inform players how their actions change the world (Mukherjee, 2011, p. 1). This notion of narrative memory appears to be more particular than player memory, since games are only responding to particular triggers. Nevertheless, these types of responses from videogames still convey to players that their actions matter in these fictitious worlds. Some videogames have limited narrative reactions, such as giving experience points to a character for having a high number of kills in *Uncharted: Drake’s Fortune*. By contrast, *Dishonored’s* game world becomes more dangerous based on a player’s acts of violence (Jørgensen, 2015), and in *A Wolf Among Us* the player-character reacts more aggressively to other characters in the game world based on how often the player succumbs to violent temptation (Bushnell, 2016, pp. 67-74). These examples showcase a mutability to the game world that goes beyond mere experience points; it fosters introspection and reaction to how the player-character has altered the game world overall. Such narrative reactions can occur in different ways depending how the text is written. There can be sections of play where multiple actions and reactions can occur within a single scene, or action and consequence can be gradually experienced throughout the course of the whole videogame.

Active narratives work alongside passive narratives to expand the affordances of the narrative and give players a sense of making an impact in the game world. Even in videogames that have a small degree of possible player action, an active narrative can make the videogame narrative appear to be much more elaborate. For example, making each choice taken by the player appear to have many different consequences, even though there is only one end result, gives the impression of nuance and variability despite minimal narrative mutability. An example of this would be *The Walking Dead: Season 1* by Telltale Games, in a scene where the characters Duck and Shawn Greene are both in mortal peril. The player-character needs to choose whom to save; however, regardless of the player’s actions, Shawn will always die and Duck will always live.

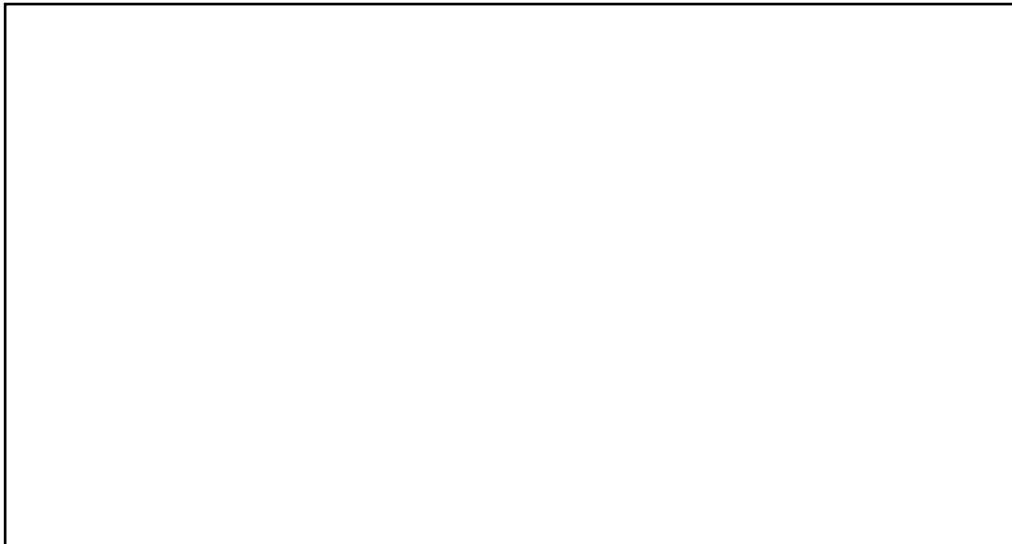


Figure 2: This image shows the actions the player can take to alter the result of the scene to attempt to save Shawn. The bar at the bottom of the screen indicates the time left to make a choice. Source: *The Walking Dead: Season 1*

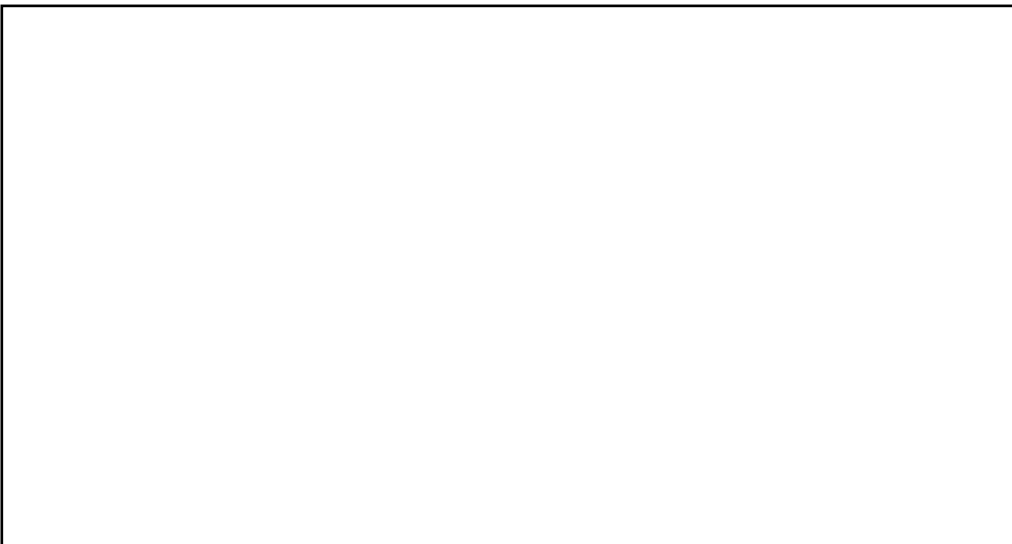


Figure 3: This image shows the player in the process of choosing to save Duck. Source: *The Walking Dead: Season 1*

Although the result of this scene (Figure 2 and Figure 3) is predetermined, it nevertheless offers actions for the player to take, allowing for more nuanced play. Players can hold off zombies from Shawn longer if they use a board to force one of them back. This action has no direct effect on the ultimate outcome but alters the responses of other characters to the player-character. Shawn's father Hershel and Duck's father Kenny both react positively or negatively depending on whose son the player-character attempts to save. Although the decisions do not significantly impact the overall outcome of the scene, the text's reaction to the player-character's actions showcases the active nature of this narrative.

In *The Walking Dead: Season 1*, the player has a certain degree of affordance in their interactions with other characters, or how they can go about their tasks, to which the videogame responds in certain sections. The player is allowed to see different aspects of the scene if they act in certain ways

(saving Duck or attempting to save Shawn), but, much as Boal's *Theatre of the Oppressed* (2000) does not change the script, Shawn will always perish, no matter what the player does.

Bioshock by Irrational Games provides possibilities for active narrative participation in small sections through its overall game, when it provides a choice to 'harvest' or 'rescue' Little Sisters. Depending on the action of the player towards the Little Sisters (Figure 4), the videogame provides a 'good' or 'bad' ending of the game. The game recognises the player's actions and provides a response. There is an immediate response in the different rewards that are dependent on the decision made, and an overall response in the variable ending of the videogame.

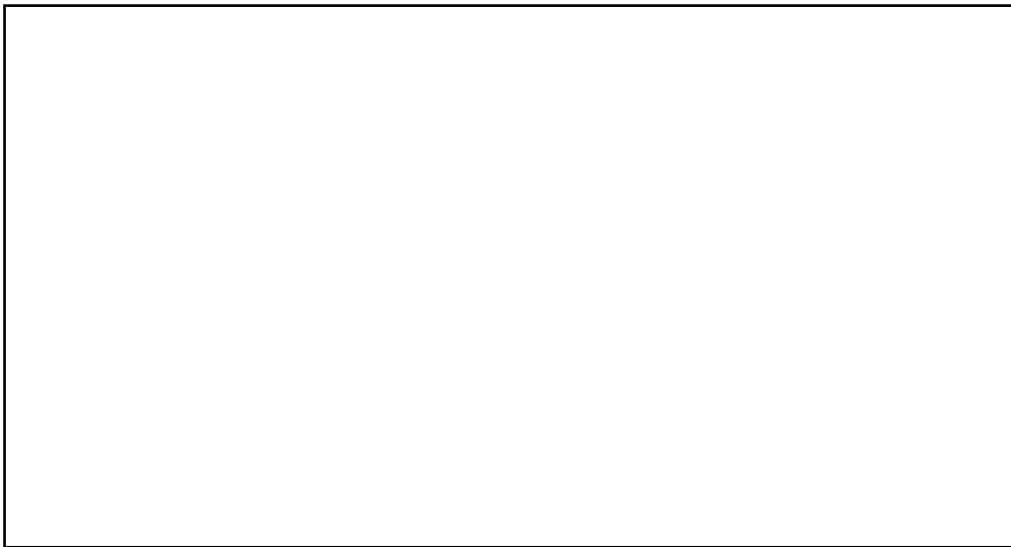


Figure 4: Choosing what to do with the Little Sister. This image shows the two actions the player can take to Harvest or Rescue the Little Sister. Source: *Bioshock*

Bioshock's primary interaction with the player is in the gameplay mechanic of combat, rather than narrative reactions to dialogue choices. These combat actions do not allow the player to affect the narrative by changing future outcomes, but rather are necessary for the player to progress through the game. There is an aspect of choice in the array of weapons chosen, the method of traversal, and the manner in which weapons and special abilities can be used for combat. In these instances, *Bioshock* provides immediate feedback to the player for their actions, providing a host of reactions that influence the player-character's progression through the videogame. However, these player actions and game reactions do not affect the state of the game world or the progression of the narrative structure. Choosing to systematically rewire turrets and security cameras in a level may provide the player-character with a better chance of survival whenever they are attacked, but this action has no bearing on developments in other levels of *Bioshock*. Choosing to not attack enemies in a level may provide players with a different experience of the game, but the game does not react any differently to the player's actions than if they had killed all enemies. *Bioshock*'s text is largely

passive as it provides little reaction to player decisions. The game only responds to the harvesting or the rescuing of Little Sisters, providing the player with an ending that reflects their actions.

Compared to *The Walking Dead: Season 1*, *Bioshock*'s relationship of audience action and narrative response is less responsive. However, the overall structure of *Bioshock* can shift between two different endings according to the Little Sister's status of harvested or rescued. *The Walking Dead: Season 1* presents a number of different reactions to the actions of the player in that moment of play, while *Bioshock* provides a reaction to the consistent choice of the player throughout the videogame. Both videogames display an active narrative that reacts to the player's decisions; however, their choice structures are different from each other. *Bioshock* takes note of and responds to player action throughout the videogame, while *The Walking: Dead Season 1* takes note of the actions in each specific scene.¹⁷ By contrast, the *Fallout* franchise provides a mixture overview of the range of activeness that exists within role-playing videogames, thanks to its many instalments and its mixture of nuanced and overall reaction.

1.10 Conclusion

The unique complexities of analysing videogame narratives can be understood as a combination of various elements: the active and passive aspects of both audience and narrative. I examine the *Fallout* franchise to better understand how texts provide a static narrative that is partially alterable by the player. More information is provided in the chapters themselves for each of the *Fallout* videogames. To this end the thesis has been broken up into three chapters to provide:

- An analysis of passive narratives, which explores the set narratives of the *Fallout* franchise.
- An analysis of active narratives, which explores the alterable narratives of the *Fallout* franchise.
- An analysis of the content of both active and passive narratives (what the narrative events are) and how they differ in the *Fallout* franchise.

Chapter 2 analyses passive narratives through the main quests in the first three games, *Fallout 1*, *Fallout 2*, and *Fallout 3*. The main quests in these videogames are clear examples of cardinal functions. These narrative structures highlight the cardinal functions as set pieces for the game's fiction, yet at the same time they allow players to partially alter other narrative aspects. Importantly, interviews with Tim Cain and Leonard Boyarsky have been included in this chapter's discussion in order to understand the design process behind the development of *Fallout 1* and *Fallout 2*'s main

¹⁷ Further examples for games that showcase overall reaction include *Dishonored*, *S.T.A.L.K.E.R.*, as well as *Mass Effect*, primarily because of the lack of immediacy to the player's actions (the results of the player's actions are seen most notably at the end of each of these videogames). While nuanced reaction can be seen in *Consortium*, *The Stanley Parable*, and *Deus Ex*, through their immediate reactions to the player's actions.

quests. *Fallout 1*, *Fallout 2* and *Fallout 3* present their plots, gameplay and player choices differently, however the overall direction of each game is largely similar in progression; a simple crisis engages players with the world, and then another crisis is introduced at the middle point of the narrative. Most of the discussion in this chapter concerns the analysis of the similarities and the differences in these cardinal functions, as well as the variation in the approaches that the player can take to reach these functions.

Chapter 3 examines active narratives through the side or secondary quests of the *Fallout* franchise, as well as the main quests of *Fallout: New Vegas* and *Fallout 4*. This chapter focuses on the range of action available to the player in their completion of various narrative goals and how that affects the videogame's narrative, both within the game and in the videogame's epilogue. It should be noted that while *Fallout: New Vegas* and *Fallout 4*'s main quests are still fixed, the games' narratives allow for much more player involvement with how these main quests are completed. This chapter thus closely explores the role of the main and side quests of *Fallout: New Vegas* and *Fallout 4* to see how audience action can influence the narrative's structure.

Chapter 4 examines how narrative operates across the whole franchise, revealing the sophistication of narrative construction in each instalment of the *Fallout* franchise. The increase in sophistication grows alongside technical developments as well as changes to the content of both active and passive narratives. Furthermore, the chapter discusses the developments of *Fallout 3*, *Fallout: New Vegas* and *Fallout 4* to include downloadable content (DLC) in their narratives as the ability to place extra narrative units into the text after release. Such inclusion of extra content showcases that the design of considerations of this DLC operates akin to a catalyst in relation to the main quest.

The last chapter concludes by reiterating the main points of the thesis, and summarising the findings of each chapter. This section also indicates areas for potential further research, primarily regarding the interactions between communities and videogame texts.

2 Passive Narratives

This chapter explores the role of passive narratives as narrative foundation within the *Fallout* franchise. It examines Roland Barthes' cardinal functions and their relationship to the main quest in videogames, establishing a definitive introduction, middle and end in each *Fallout* videogame. To aid in this examination of passive narratives, this chapter explores the player's relationship to their character to explain how the player is introduced to the game world. This relationship is supported by the use of paratext which establishes the 'narrative frame' of what can occur within the videogame, this is examined in section 2.4 "Cardinal Functions as Main Quests". Cardinal functions, player-character identification and the paratext establishes each of the *Fallout* videogames' passive narratives, as they aid in the construction of the videogame's narrative frame.

Having established these concepts, the chapter then explores them in relation to *Fallout 1*, *Fallout 2* and *Fallout 3*. As each videogame can be divided up into its introductory, middle and end cardinal functions, this is the primary lens through which the passive narratives are viewed. The effect of paratext and player-character roles is primarily seen in the introductory cardinal function, as that is where they are most often located. The player-character and paratext do impact both the middle and end cardinal functions, but not to the same degree as the introductory cardinal function. The game's introduction establishes the goals, the world and the player-character, while the middle and end cardinal functions provide the player with the resolution of the goals. To further support the discussion of cardinal functions, interviews were conducted with the developers of *Fallout 1* and *Fallout 2*: Lead Developer Tim Cain and Lead Artist Leonard Boyarsky.¹⁸ The conclusion of this chapter maps the locations of cardinal functions through the use of in-game world maps. This highlights the cardinal function's role in videogames, as the mapping of the *Fallout* series acts as 'gates' to the player's experience of each videogame, identifying which sections of the game players are gated from and guided to. Discussing these maps facilitates an understanding of the player's actions and their influences on the text.

This chapter applies Roland Barthes' theory of narrative structures to each *Fallout* videogame to answer the first thesis question: 'What are the narrative structures for role-playing videogames?' The response to this question illuminates the structure of the *Fallout* videogames as a designed experience, both in the scope of the main quest and in the range of actions available to the player. Passive narratives establish the 'set' narrative structure of the videogame, providing direction to the player-character and establishing the frame of the videogame, defining what is possible within it.

¹⁸ Both developers were present throughout the production of *Fallout 1* and closely involved at the outset of production for *Fallout 2*. See Appendix 8.1 and 8.2 for further information about their roles.

Hans-Joachim Backe refers to this as ‘world rules’ (2012, p. 252), as does Jesper Juul in relation to the gameplay mechanics of the game (2011, pp. 120-121). However, in most narrative-based games these ‘rules’ occupy the same place as the main quest, as the entire videogame relies on the main quest to be completed for events in the videogame to change. These rules are essentially a road map for what is narratively possible in the videogame. Active narratives require a paratext to establish a frame, a player-character relationship for the player, and cardinal functions to provide guidelines. Finishing the videogame requires the resolution of these cardinal functions. Consequently, it is integral to examine the passive narratives within the *Fallout* franchise, as this allows an understanding of how these videogame narratives actively respond to the player.

2.1 Passive Narratives as Cardinal Functions

All the *Fallout* videogames have passive narratives designed and predetermined by the developers in order to weave audiences, and their potential actions, into the game world. As previously established, such passive narratives correspond to the cardinal functions of other media forms. Passive narrative can be demarcated by the beginning, middle and end, as is discussed in Aristotle’s *Poetics* (Boon, 2007, p. 57; Lucas, 1968). Cardinal functions demarcate these key points of narrative (McFarlane, 1996, p. 14), which correspond to the Aristotelian structure (Barthes, 1978, pp. 98-99). Although videogames allow for variation in their narratives, they nevertheless correspond to Aristotelian narrative conventions to provide a story for their audiences (Bateman & Adams, 2007, pp. 12-15). So what do cardinal functions provide to videogames? Based on their traditional use in other media forms and the further implications of their use in videogames, these functions can take the form of a path or plot for the player to progress through, and they necessarily limit the possibilities of player action, and also allow players to influence the creation of dynamic stories. Although the player can make narratively significant decisions in the *Fallout* videogames, the passive narrative provides a structure or constraint to the player’s actions.

This establishment of cardinal functions as an analytical framework echoes the traditional presentation of narratives. Indeed, there are similarities between the analytical frame that cardinal functions offer and the design intentions of the *Fallout* developers. Leonard Boyarsky stated that the narrative of *Fallout* was a way to guide the player through the world of *Fallout* 1:

...at the end of the day we’re telling a story so there has to be certain things that happen. No matter what you do, you have to face the Master at some point, no matter what you do you have to bring the Waterchip back at some point. If you’re going to tell a story you don’t have a choice and you can’t let it be random stuff that happens. The world then wouldn’t be a story. (Appendix 8.2)

This development is most likely a product of the nature of Aristotelian narrative forms (Jacobs, 2007, pp. 25-26), and not solely an adherence to Barthesian narrative structures. Nevertheless the introduction, middle and end are necessary elements that allow for a certain story to be told. This narrative form provided in the *Fallout* videogames were developed to house the player's possible actions. Players can create their own narratives, within this pre-determined structure.

The sections of player-directed narrative are catalysts: moments in between initiating or concluding the cardinal functions of the narrative. Catalysts are considered supplementary in the completion of the videogame, but nevertheless the player may consider these sections important while they traverse through the videogame, informing their ability and conception of the world. Moreover, they help the player to identify the consequences of their own actions within the world. Tim Cain provides an anecdote of how these catalysts act as side quests, affecting the player's experience of *Fallout 1*:

When people talked about *Fallout* it was like: 'Oh my god, I was walking through Junktown and this dude tried to offer me an Iguana-on-a-stick and I found out it was made from people, SO I KILLED HIM.'

And you're like: 'That's a good story. What's that got to do with *Fallout*? What's that to do with finding the Waterchip?'

'Oh that's just something that happened.'

People like telling stories and *Fallout* really gave them a lot of material for telling stories to their friends. (Appendix 8.1)

In Tim Cain's example, the main quest provides an opportunity for catalysts to occur (meeting the Iguana-on-a-stick vendor), and for players to construct their own narratives from these events (such as killing the vendor). Therefore, the cardinal functions provide an opportunity to enable such catalyst experiences, upon which the player is free to act. Although this has little significance in the progression of the videogame, it can heavily influence the player's narrative experience.

The notion that cardinal functions provide a structure for the videogame's narrative echoes Brian McFarlane's work on adaptation in *Novels to Film* (1996). McFarlane states: 'The linking together of cardinal functions provides the irreducible *bare bones* of the narrative' (1996, p. 14, emphasis added), which can then readily be applied to other media. For McFarlane, these 'bare bones' provide a stable foundation from which filmmakers can experiment with an adaptation of the text: 'The film version of a novel may retain all the major cardinal functions of a novel, all its chief character functions' (1996, p. 26). For McFarlane, the cardinal functions of a novel and their transferral to film

enables them share a core story, yet present that core differently. This mutability can also be perceived in the *Fallout* videogames, which have a set sequence of events that the player is able to navigate through their different playthroughs. In a way each unique playthrough can be understood as an adaptation of the game's core story based on the multitude of ways that the player can complete a narrative. The potential actions and their consequences within these videogames echo Frasca's work illustrating Boal's *Theatre of the Oppressed* (2003, pp. 228-229) or Brenda Laurel's *Computers as Theatre*, which identifies computer users as akin to a participatory audience in a theatre production (2013, pp. 28-31). The videogame *Bioshock: Infinite* illustrates this multi-natured narrative through its presentation of the player-character as one in a multiverse: each playthrough of the game is a possibility of how the videogame could progress (Lizardi, 2014). As each playthrough (and death) of the videogame is treated as an "alternate reality", the videogame simultaneously acknowledges its set narrative – the sequence of events that lead to an ending – and the player's ability to have multiple, different playthrough experiences through the same content. All players have a similar experience that touches on the core story; however each player will act in different ways within the videogame, causing each playthrough to be a different adaptation, or different performance, of a core text.

McFarlane's assertion that cardinal functions are a foundation for texts is illustrated in *Fallout 1*, whose narrative design impacts the direction of the videogame, and what the player is expected to do. As Leonard Boyarsky explains: 'a lot of that stuff [narrative] was basically outlined... we put the *meat on the bones* when we took over [an] aspect of it' (Appendix 8.2, emphasis added). As the developers describe how main quests were considered in *Fallout 1* and *Fallout 2*, their choice of language echoes McFarlane's interpretation of how narrative can be designed and analysed. As Tim Cain explains: 'we thought of it [*Fallout 1*] as: 'Here's the skeleton of the main story arc and the player only has to do those.' But then we grew a lot of side quests off so it looked like – if you were trying to draw the side quests – it looked like a branching tree limb' (Appendix 8.1). Following this description, the cardinal functions provide the 'skeleton' of the videogame, with different side quests and opportunity for player action forming the 'tree limb' or 'meat'. In both film and videogames, cardinal functions establish the static core points of a text, while catalysts are more susceptible to change.

Establishing passive narratives in this way, through cardinal functions, player-character relationships and paratext, is necessary to understand active narratives. The relationship between passive and active narratives can be understood through the concept of 'narrative rules', which define the player's role and govern their available actions in regard to narrative. These narrative rules are much like Roger Caillois' *ludus* and *paidia* relationship (1961, pp. 27-33), Alex Galloway's operator-machine

divide in *Gaming: Essays on Algorithmic Culture* (2006, pp. 37-38), and the rule focus in George Elias and colleagues' *Characteristics of Gaming* (2012, pp. 6-8, pp. 25-29). Caillois refers to the relationship between the freeform play of *paidia* and *ludus*'s rule as '[...] inseparable from play as soon as the latter becomes institutionalised. From this moment on they become part of its nature. But a basic freedom is central to play' (1961, p. 27). In this, Caillois recognises that the constructions of convention are a necessary housing for play – or, more generally, action – for the player. Galloway focuses on the relationship of the operator and the machine:

... machine actions are acts performed by the software and hardware of the game computer, while operator actions are acts performed by players... Locating a power-up in *Super Mario Bros.* is an operator act, but the power-up actually boosting the player character's health is a machine act. (2006, p. 5)

Galloway's distinction is similar to the passive/active distinction I put forward, but he views the text as a machine algorithm, choosing to stress the gameplay qualities of videogames rather than their textual qualities. Elias and his colleagues identify game rules as essential tools for understanding various tabletop games:

We'll say a characteristic is systemic if it depends mainly on the game as a system (e.g. on the rules) and agential if it depends primarily on the player base... the terms agential and systemic are very much relative. (2012, p. 8)

Elias and his colleagues examine the demands of the rules in relation to the demands of the player action. They make an important distinction: 'Characteristics [of games] are more or less agential or systemic, not all one or all the other' (2012, p. 9). However, given the role that narrative plays in the construction of the *Fallout* videogames, it is not just player freedom that constructs the videogame world, but also the player's adherence to the narrative constraints. Each of these game scholars' exploration of game rules suggests the text or game-object guides the actions of the player to allow for variation in experiences, and hence this field of inquiry provides a path to take in examining how narrative is structured. Narrative structures establish the boundaries of the narrative so that variation in the story can be achieved. Rules and variation are intrinsically linked within the *Fallout* franchises, as is evident both in its role-playing mechanics and its exploration of consequences. This is particularly prominent in the introductory cardinal function, which creates a safe environment in which the player can identify their actions and test how the game will react to these actions. Passive narratives and cardinal functions operate as the "skeleton" that holds up the meat of the game. Hence understanding this fundamental skeleton structure facilitates comprehension of the "meat" – the dynamic elements of these videogames.

In the first three *Fallout* games, *Fallout 1*, *Fallout 2* and *Fallout 3*, the passive narrative of the main quests operates as a structure to guide player action. Such main quests can be identified as cardinal functions that provide checkpoints for the player along a series of tasks until the videogame's completion. *Fallout: New Vegas* and *Fallout 4*'s cardinal functions are focused on a general goal and can be approached through a variety of different means; in this case, factional side quests. Thus, the main quest can be approached dynamically in *Fallout: New Vegas* and *Fallout 4*, as these videogames rely heavily on catalysts to determine which quests become the cardinal functions.

The following section analyses these cardinal functions to determine the effect that their structure has on the narrative of the videogame and on the player, and how these cardinal functions serve as a foundation for the videogame's active narrative. *Fallout: New Vegas* and *Fallout 4*'s combined use of catalysts with their cardinal functions makes such an analysis of their passive narratives convoluted. Consequently, this chapter focuses on *Fallout 1*, *Fallout 2* and *Fallout 3*, as well as, *Fallout: New Vegas* and *Fallout 4* for their use of cardinal functions and the relationship that cardinal functions have to active narratives.

2.2 *Fallout 1*, *Fallout 2*, and *Fallout 3* Overview

The first three *Fallout* videogames were developed respectively by Interplay, Black Isle Games and Bethesda Game Studios. They contain two different representations of the game world, in two and three-dimensional graphics. This section will provide an overview of the games and their paratextual design – that is, the design of elements considered to be outside the text, such as user interface (UI), game box and manual – before proceeding to the discussion of player-character and cardinal functions.

Fallout 1 and *Fallout 2* are cavalier-perspective¹⁹ videogames that rely heavily on a modified Generic Universal RolePlaying System (GURPS), and feature a number of skills that affect how the player-character can interact with the game world (Interplay Entertainment). Both *Fallout* videogames employ random dice rolls to determine the success of character abilities and turn-based combat, while also incorporating statistics determining the player abilities. Through the 'Targeted Shot' function, players can even select specific areas of their enemies to attack for a chance to do extra damage. Due to these gameplay features, developers and players consider the two videogames to be role-playing games (Harrigan & Wardrip-Fruin, 2010, pp. 1-2). While player action occurs mostly in set locations such as towns, cities or caves, random encounters can occur when players move

¹⁹ The perspective is popularly referred to as isometric as mentioned by Tim Cain in his 'Fallout Classic Revisited' presentation (2012). However there are slight differences between the two perspectives. These differences can be explored further through Ingrid Carlbom and Joseph Paciorek's "Planar Geometric Projections and Viewing Transformations" (1978, p. 481).

around on the world map. Play is limited to certain areas predefined by developers, while movement in all other areas is abstracted by a moving dotted line on the 'world map'.

Fallout 3 is a three-dimensional first-person (with the ability for third-person perspective) role-playing videogame that combines the Gamebryo²⁰ engine with the content of the previous *Fallout* videogames. Much of the action and playable area is rendered in real time and involves real-time combat. The primary exception is the 'Vault-Tec Assisted Targeting System' (VATS), which is an adaptation of the previous games' 'Targeted Shot', and enables the player to use a specific targeting ability while the game world is paused. Thus, much of the action of the game is focused on the shooting or combat mechanics, with some minor focus on the skills (much like the first two *Fallout* videogames). However, unlike the previous *Fallout* instalments, the world map is not an abstract representation of the player's position in the world, punctuated by random encounters. Instead, each location shown on the world map is a physical location to which the player initially needs to travel, after which they are able to 'quick travel' or instantly teleport to these locations. *Fallout: New Vegas* follows the design of *Fallout 3* as it operates on the same Gamebryo engine. *Fallout 4* uses a more advanced version of the engine called the Creation Engine, which allows for more advanced animation and artificial intelligence to be used in the videogame.

In these videogames, the cardinal functions frame the player-character's action and ability. By establishing game rules, character goals, and player controls, the cardinal functions create a static foundation that is still open for the player to explore. This foundation corresponds to the game design ideal of the 'golden path': a default path of play from which the player can diverge by taking other routes to the end, although ultimately these are just minor deviations from the default path (Bateman & Adams, 2007, p. 88).²¹ Many videogames offer these deviations of narrative and gameplay, but the *Fallout* games allow for these paths to significantly alter cardinal events.

As the original developers Tim Cain and Leonard Boyarsky have highlighted, player alterations and textual reactions were a priority of *Fallout*, and have continued throughout the development of the *Fallout* franchise. This is why the *Fallout* franchise represents a unique opportunity to explore not just the narrative foundations that establish the overall scope of the world, but also the catalysts that allow for divergence in the player's experience of each videogame. Considered through the lens of cardinal functions and catalysts, the *Fallout* franchise illustrates that active narratives are both predefined and mutable. Furthermore, by establishing these terms, cardinal functions and catalysts,

²⁰ A game engine is the environment in which a game can be designed and run, in the same way that a computer's operating system may house programs that a user can run.

²¹ For an excellent analysis of this process, as well as gameplay experience of this path, see Alexander Muscat's "Playing Fiction: Mechanics and Story in Digital Games" (2012).

within the scholarly analysis of RPG videogames, further links can be made to the research of Gonzalo Frasca, Hans-Joachim Backe or Espen Aarseth. This improves the understanding of videogame narratives and of their hybrid nature as both passive and active. The next section of this chapter explores the manner in which the cardinal functions establish a link between player and character, and examines how the game world of *Fallout* is introduced.

2.3 Player-Characters

Establishing the player and their character in the game world is integral to the passive narratives in these *Fallout* videogames. The reason for this is twofold: it enables the player to associate themselves with the character on-screen and engage with the narrative of the videogame (Jørgensen, 2010, pp. 319-321). The character (also referred to as avatar) is the manifestation of the player in the game world that operates in a diegetic manner to affect the fictional game world (Ryan, 2006, pp. 111-145). Although the character is encoded within the narrative, the player has a certain range of choice in how their character acts in relation to the game world. Kristine Jørgensen explores this player-character relationship further:

The relationship between player and PC [player-character] is a complex one in all games, and it can neither be seen simply as identification nor empathy. Due to the necessary control link there is always a certain connection between player and PC, although this will vary between games and genres. Salen and Zimmerman see the relationship between player and PC as one of hybrid or double consciousness of play, in which players remain completely aware that they are playing while also being conscious about the PC as an object to be manipulated according to the rules of the game. (2010, p. 319)

According to this interpretation, the player has control of their videogame character and is aware of it as a tool for progression, and their character is part of the game world and so has their own motivations and desires (Lankoski, 2011, pp. 292-293). As the player-character is a necessary phenomenon within the *Fallout* franchise, this means that the player-character relationship is a necessary part of the introductory cardinal function. Understanding this relationship in each *Fallout* videogame facilitates an understanding of the narrative structures and the actions that players can perform.

At the beginning of play, both player and character are presented as one unit, which enables the videogame to teach the player how to play the videogame while the character as a diegetic entity comes to terms with the game world (Mortensen, 2010, pp. 297-299). The parallel experiences of player and character entering the game world leads to a relationship between character and player that grows throughout the development of the videogame (Mallon, 2008, pp. 1-3). Through their

connection to the character, the player can inhabit the game world and invest in the concerns of the world. This section examines how player-character connections are created in each of the *Fallout* instalments. Each videogame establishes the player-character as someone unfamiliar with the game world or mechanics. In *Fallout 1* and *Fallout 3*, the player-character is a vault-dweller who has to go out and explore the wasteland. In *Fallout 2*, the player-character embodies a tribal descendant of the vault-dweller from *Fallout 1*. *Fallout 4* situates the player as a pre-war individual who must adapt to the post-apocalyptic landscape, where *Fallout: New Vegas* introduces the character of a courier who suffers amnesia.

In each of these cases the character and the player are introduced to the game world in a similar manner: much like the player, the game character is unaware of the larger game world. The player is immersed in a new world, with new mechanics, themes and settings. The character is concurrently thrown into an unfamiliar environment, and must leave their familiar surroundings to solve a crisis. In *Fallout 1* the player-character must find the Waterchip to save their Vault. In *Fallout 2* the character needs to locate a 'G.E.C.K.' – a 'Garden of Eden Creation Kit'. *Fallout 3* sees the player-character search the wasteland for their father. In *Fallout: New Vegas*, the player-character searches for the man who tried to kill them in an introductory cutscene. Finally, the player-character in *Fallout 4* is on a mission to find their son. Each of these goals encourages the character to leave their starting location and explore the world, while also giving the player narrative direction and an idea of what the game world expects of them. It is this combination of player and character goals that enables the *Fallout* videogames to account for the available actions the player can take within the narrative. However, while the player's goals and the character's goals can work in concert, this does not mean they are necessarily the same.

The player's goal in the *Fallout* series can be generalised as the completion of the videogame. However, a variety of player motivations can alter the type of play that might be undertaken, and Richard Bartle's "Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs" identifies a variety of play types. Bartle's work identifies four types of players – explorers, socialisers, achievers and killers (1996, p. 3) – however, this typology should only be used to illustrate a number of different approaches to in the play of videogames. In *Fallout 1*, this might involve playing the character as a pacifist, or playing as a character who is extremely lucky. Though the player can choose their abilities and play in their own way, they are nevertheless restricted by the videogame's rules. *Fallout 1* is designed so that players can complete each main quest objective through sneaking, talking or fighting. These textual affordances mean that the player who wishes to play as a pacifist can either sneak or talk their way through these cardinal functions. The player's character does not necessarily share these goals, as the text offers no indication of the character's nature beyond their desire to

save their community. As such, the player can partially determine their own goals and this will influence the way their character behaves and acts within the narrative.²²

Through the years the videogame industry has evolved many different methods of ‘teaching players the rules’, often through the ‘tutorial’, a section of the videogame that introduces players to the game world (Dansky, 2007, pp. 130-134; Newman, 2013, pp. 60-61). *Fallout* is no exception. *Fallout 1*’s first scene starts the player-character outside Vault 13; *Fallout 2* places the player in the Temple of Trials; and *Fallout 3* even depicts the birth of the player-character. In each of these examples, the player and character are introduced to the game world in a parallel fashion: both are new to the environment, and both must learn how to operate successfully in the world. This player and character paradigm is reminiscent of Rowan Tulloch’s analysis of the role of player and character in *Bioshock* in “A Man Chooses, a Slave Obeys” (2010). Tulloch’s work on *Bioshock* highlights how the player’s objectives generally coincide with the game-character’s motivation (2010, pp. 30-32). Tulloch’s work also identifies that the middle cardinal functions can solidify the bond between player and character developed in the introduction, ensuring that their goals align mutually:

The twist [a cardinal function] functions to reveal two parallel manipulations: Atlas’ manipulation of Jack, and the game’s manipulation of the player. The former is a compelling narrative twist, but it is the latter that is most academically significant. Where Jack was subconsciously compelled, the player voluntarily followed along because this is standard video game practice... (2010, p. 33)

In this instance, the deception of both character and player ensures that their individual goals are aligned. The cardinal functions thus provide the message and motivations (Hefner et al., 2007, pp. 39-40) as the player and character are introduced to the crisis in the game world.²³

Marie-Laure Ryan’s *Avatars of Story* (2006, pp. 111-145) also focuses on the player-character relationship, which is developed through the notion of *metalepsis*, where the reader enters the fictional world space (Genette, 1983, pp. 235-238). The player and the character are placed on equal footing, have similar goals, and occupy similar roles. These goals provide the character’s motivation to progress through the game world, while for the player these goals are an encouragement to progress through the videogame. This presentation of player to character goal is similar to the role

²² This type of character design can be considered a *tabula rasa*: a blank slate on which the player can project. Most videogames provide a mixture of goals for the character, while also allowing the player to develop the personality of the character (Lankoski, 2011, pp. 292-293).

²³ It is only when the player is given more control over their character in moments of active narrative that the goals of player and character can become misaligned. Such discussion is covered in the next chapter in section 3.2 “Catalysts as Active Narratives” with Clint Hockings’ term ‘ludo-narrative dissonance’ (2009).

of players in Brenda Laurel's *Computers as Theatre*, where the player essentially performs as their character would in a defined role (2013, pp. 109-112). For Laurel, this role is 'one of the most vital contributions of structure is its role in *constraining* the creative process' (2013, p. 128, emphasis added) for the player. In this character role, the player has a constraint to which their actions can be channelled effectively. For Ryan, the player is able to involve themselves within the videogame, while for Laurel the player as character constrains the player so that they can make 'imaginative leaps' (2013, p. 129). Both Ryan and Laurel's presentation of player-character points towards the player to character relationship as aiding in the immersion of the videogame and the player character relationship as a constraint that encourages players to experiment with their role.

Players are encouraged to share their character's goal so that they can progress through the world. As posited by Janet Murray, the player-character relationship facilitates immersion. For Murray, immersion is the combination of the immediacy of the text's reaction to the player's actions (1997, pp. 111-112) and the dissolution of the border between the audience and the text (1997, pp. 103-105). The mixture of dissolving borders and audience action forms an 'active creation of belief' where the text responds to the player's actions and facilitates their belief of the fictional world. The audience is thus immersed within the text as the world responds to their actions and decisions. The development of the player-character relationship throughout the videogame stimulates a stronger relationship between the text and the audience (Mallon & Webb, 2000). This development of player and character relationship is further maintained through both side quests, and main quests in the *Fallout* series.

Side quests do not necessarily align character and player goals together. Within side quests, the player can develop their own independent motivations to complete them, as Leonard Boyarsky reflects:

A lot of the side quests stuff is just pickup.

It's like 'well the player wants to do this so they'll do it.' We don't have to try as hard to entice them. We just have to make a cool little story that's self-contained that maybe has some things in it that affect things down the road.' (Appendix 8.2)

In these side quests, the player is constrained by their own interests and the mechanical abilities of their character. If the player is not interested in a side quest, this inaction determines their narrative experience of the *Fallout* videogames. This choice to or not to engage with a side quest provides the player with a method of determining their role within the game world. Through how the player decides to act in these side quests, the player's performance of their character is determined.

In contrast, the main quests reinforce the character's role so that the player can complete the videogame. This makes it so that regardless of the actions of the side quests, or the abilities of the character, the player-character always can progress and complete the videogame. Tim Cain explains this development as a result of his GURPS campaigns:

I played [GURPS] with this friend of mine, and she made a character whose only skills were in savoir faire (which is basically the art of being able to talk really nicely as a really classy person). And then they went into a dungeon and got attacked by monsters, and she was like 'how does my savoir faire help me now?' and I went 'It doesn't.'

And she died, her character died.

We talked about that for a long time afterwards. She's like 'Why would you let me make a character that has savoir faire and not put in a way for me to use savoir faire?'

And I was like 'okay.'

And that's how, we arrived at our third rule [...] You could not make a character who couldn't finish the game. That didn't mean it was easy, it just meant it was possible. (Appendix 8.1)

Although this quote points refers primarily to game mechanics, the narrative too needs to allow for the player to complete the videogame. The player's character regardless of their choice of side quests completed, will always be able to complete the main quest of *Fallout* videogames. The main quest maintains the role of the character so that this progression can occur. The combination of the main quest with side quests enable the player to interact with much of the game world, and allow them to become explorers, heroes or villains. Without a main quest to encourage the player to investigate the world, the experience of each *Fallout* videogame would be unstructured and meaningless. The above extract from Tim Cain describes the importance of allowing the player's character, created and modified to the player's specifications, to perform the main quest and have a 'possibility' of succeeding. Therefore, the main quests exist more as a vehicle for the exploration the character rather than as a challenge that must be overcome. The *Fallout* franchise while providing some challenge, ensures that each player-character has the capacity to complete the videogame, the main quest of *Fallout 1* allows for a number of interpretations by the player performers. As explored by Leonard Boyarsky, each side quest can be considered an opportunity for the player-character to refine their identity. The cardinal functions in the *Fallout* series facilitate and maintains the character's identity, as the player can determine how to approach and complete each main quest. This process changes from game to game, and thus it is crucial to provide a case study analysis of the cardinal functions within each game.

2.4 Cardinal Functions as Main Quests

The cardinal function section explores the three primary cardinal functions in *Fallout 1*, *Fallout 2* and *Fallout 3*: the introduction, the middle crisis points, and the conclusion. The introduction section examines how the initial crisis establishes and builds upon the game world, reiterating how these elements establish the player and character as a single individual. The paratext effect of introducing the player to the text is also focused on in this section, as paratext guides how the players are introduced to the text (Genette, 1997, p. 1). The middle crisis point section examines the resolution of the first cardinal function and establishes further complications within each game. Finally, the conclusion section examines how these elements provide a conclusive end to the narrative of the *Fallout* videogames, allowing the player to reflect on their actions through the fate of their character. The cardinal functions are mapped (Figure 22 to Figure 27) to convey the range of the catalyst sections in the videogames.

2.4.1 The Introduction Cardinal Function of *Fallout 1*

Just as the first page of a book or the opening scene of a movie establishes a connection with their audience, the start of the *Fallout* videogames immerses the audience in their diegetic context (Green et al., 2004). The introduction of a videogame is the first step in getting players involved with their videogame. Through the '*Fallout* experience', *Fallout 1* establishes the character that the player will embody before the game even begins (Cain, 2012). Tim Cain's notion of the '*Fallout* experience' refers to the coherent fictional world presented by each piece of the *Fallout* product. This includes the box art, manual, CD-ROM and website; anything that depicts the product of *Fallout 1*. The concept of the *Fallout* experience does not refer to a particular psychological state, but rather the collective fictional world of the *Fallout* franchise.²⁴ The '*Fallout* experience' originally related only to *Fallout 1*, but as the franchise has grown the material has influenced and been incorporated into sections of the franchise. The paratext of *Fallout 1* is important for analysis, as it introduces players to *Fallout 1* and also informs the franchise's later design.

G rard Genette considers paratext to be the elements which surround a text but are not part of it: '[Paratext] is an "undefined zone" between the inside and the outside, a zone without any hard and fast boundary' (1997, p. 2). Genette further separates paratext into peritext, internal influences on the text, and epitext, external influences on the text (1997, p. 5).²⁵ Werner Wolf and Walter Bernhart

²⁴ Tim Cain's 'experience' approach is similar to Joseph Pine and Steven Gilmore's *The Experience Economy: work is theatre and every business a stage*: 'Companies stage an experience whenever they *engage* customers, connecting with them in a personal, memorable way.' (1999, p. 3, original emphasis) In the *Fallout* series, this interplay through all aspects of the videogame engages players in a personal and memorable way.

²⁵ Paratext can be seen as similar to Barthes' term 'parametrical relations'. Barthes describes indices as having a 'parametrical relation ... [which] remains continuously active affecting a whole episode, a character, or the

have previously employed this concept of paratext as a type of narrative frame: in their work *Framing Borders in Literature and other Media* (2006), they suggest that paratext identifies the boundaries of an interactive text. Additionally, David Jara's "A Closer Look at the (Rule-) Books" (2013) is influenced by Wolf's work on paratext and provides examples of its application to tabletop games. The interpretation of paratext through tabletop gaming allows easy adaptation to videogame texts: peritext is found in the content closely related to the text, such as manuals, CD-ROMs, box art (Dunne, 2016b, pp. 289-291); while epitext is related content physically distant to the text, such as online content, reviews and interviews (Švelch, 2016, pp. 302-305). Although other works have explored the impact and the range of paratext, in this section paratext is examined in relation to the introductory cardinal function.

The *Fallout* experience uses paratextual elements to promote the diegesis of the text before play even begins. It does so through the design of the box art (Figure 7), the game manual (Figure 5), the disk and the webpage, all of which illustrate a coherent game world open to the player. The *Fallout 1* manual (Figure 5) positions the player as a vault-dweller who is playing a simulation of what it would be like to explore the wastelands. Tim Cain has clarified that this initially arose out of a desire to create interesting content, and then was later developed through considerations for the player:

... back then [*Fallout*] came on one CD full of 700 megabytes which back then was a lot, so it took a long time to install. So we were like, 'We want them [the audience] to have a manual and a box cover that's full of fun things to look at and read.' (Appendix 8.1)

Much like Genette's paratext, the game manual, box art and CD-ROM prepare the audience for the diegetic world of *Fallout 1*.²⁶ Genette refers to paratext as 'an airlock that helps the reader pass without too much respiratory difficulty from one world to the other' (Genette 1997, p. 407-408), and this airlock effect is evident in how the *Fallout 1* player accesses the text as the paratext gradually introduces them to the world of *Fallout*. As paratext is integral and unalterable in the introduction of the videogame it aids immensely in the establishment of the introductory cardinal function, demarcating the videogame as separate from the player's day to day life and further establishing how the player can access the text. Paratextual elements thus contribute to the passive narrative structure in establishing the frame through which players can access the text.

work as a whole' (Barthes, 1978, p. 95). Like paratext, these parametrical relations are both part of the text and a frame for it.

²⁶ For a further examination of the paratext of the *Fallout* series, see my earlier work "Paratext: The In-Between of Structure and Play", which explores the paratext within *Fallout: New Vegas* (Dunne, 2016b, pp. 285-286).

SIMTEK OPERATIONS

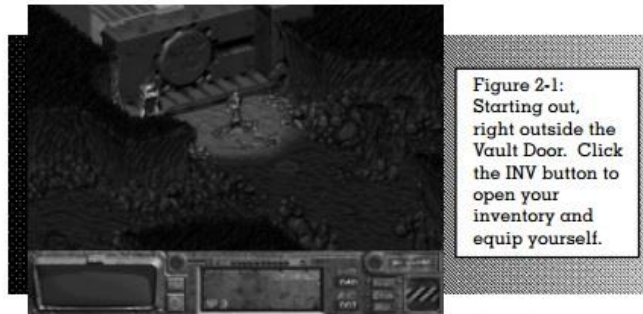
The Vault-Tec Research Group has determined that after a long period of security, many Vault-Dwellers will feel "uncomfortable" with the idea of returning to the outside world. The SimTek 5000 will provide a safe and reassuring return to life on the outside world. This chapter will give you a brief walk-through of the operation of the SimTek 5000.

Experienced Vault Dwellers may want to start with Character Creation, and skip this tutorial chapter. For beginning Vault Dwellers, this tutorial will prepare you for the outside world.

After starting the Fallout process on your terminal, click on the NEW GAME button from the Main Menu.

The character selection screen will appear. For now, keep the personnel record of Max Stone displayed and select TAKE. This will choose Max as your character. In the future, you may want to select another character, or even create your own character.

The simulation will now start. After a briefing by the Vault Overseer as to your immediate task, you will appear outside the Vault Blast Door.



Your first action should be to equip yourself with armament. All Vault-Tec prepared Vaults come with the latest in offensive and defensive equipment. You will be supplied with the most lethal self-protective devices available.

Click the INV button on the interface bar at the bottom of the screen. The hand cursor allows you to move items around in your

RESTRICTED

2-1

Figure 5: A picture of *Fallout 1*'s game manual highlighting the position of the player within *Fallout*'s diegetic world. Source: *Fallout*

This paratext of the game world establishes an introduction before the player begins their play session. The box art (Figure 7), the manual (Figure 5), the installation splash screens, the menus and the UI (Figure 6) were all designed to be viewed as believable objects that existed in the game world of *Fallout*. The borders between fiction and mechanics are blurred in a manner that echoes Janet Murray's discussion of 'identifying the borders' (1997, p. 103) of a text. Players are slowly introduced to aspects of the game world through access to the paratext, which prepares them for what to expect even before they have started the videogame.

When the player starts the game, they are presented with a video cutscene that explains the events that led to a nuclear apocalypse. The player is then greeted with the main menu screen, and selecting 'New Game' launches the player into character selection, where they can choose one of the three pre-made characters or create their own character to explore the world (Figure 6).



Figure 6: Character selection and the player statistics screen that determines the player's abilities in the game world.
Source: *Fallout*

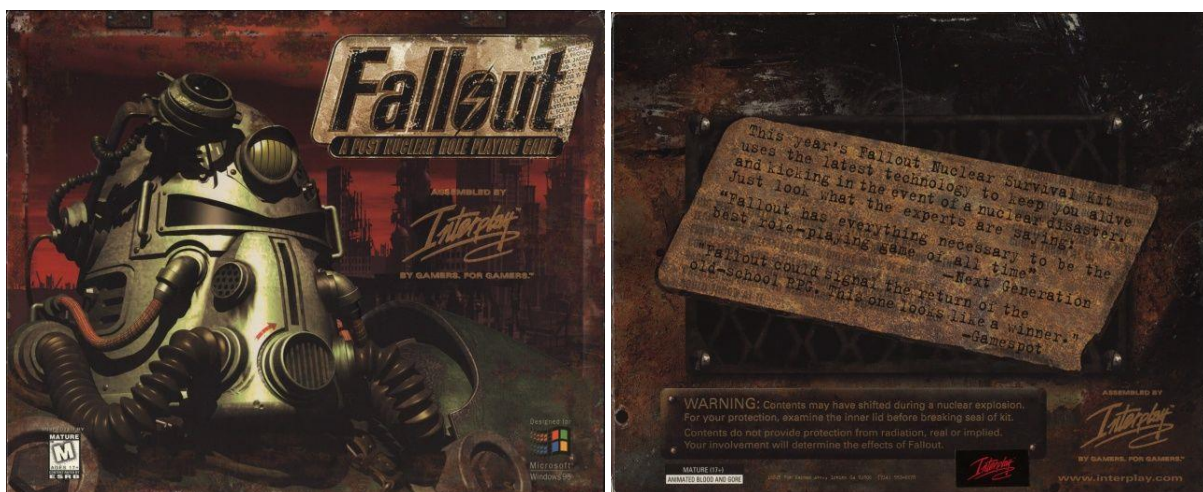


Figure 7: The box art for the *Fallout 1* videogame. Source: *MobyGames*

Only after character creation are the expectations of the player-character revealed through another cutscene. The player is informed that they need to find a Waterchip to fix the supply of drinking water to their home, Vault 13. The cutscene further indicates that the player should go to Vault 15, and then switches to the player-character's view as they exit the Vault. The player is then greeted with their first look at the user interface, through which they control their character and explore the game world (Figure 8 and Figure 9).



Figure 8: The first scene of the videogame that displays the heads-up display, the player-character, and the cavalier (isometric) view. Source: *Fallout*

The player is informed of their available actions: return to Vault 13, explore the cave that they are currently in, or head east towards Vault 15. The ability to determine their actions allows the player to explore the game world and approach the game in a manner that they wish. At this point the text changes from passive, where the player can only interpret the provided information, to an active narrative allowing the player to act. However, this activity is still constrained by the limitations of the narrative: there is only one way out of the cave.

To identify this scene as a cardinal function, it is necessary to verify that the action within the scene opens (maintains, or closes) an alternative directly affecting the continuation of the story, to ensure that it either 'initiates or resolves an uncertainty' (Barthes, 1978, p. 94). This scene initiates an uncertainty within the story, but nothing in the cave offers a continuation of the story; there is nothing in the cave that the player can do to impact the narrative structure of the text. In the introduction sequence explored above, the paratextual elements ensure that the player is immersed in, or airlocked towards, the text. For *Fallout 1's* text to progress, the player must exit the cave and proceed further with their immersion.

Exiting the cave, the player-character is greeted with the world map (Figure 9) marked with the location of Vault 15. The player can explore the area around Vault 13, but with only one location marked on the map, the general expectation is that the player will head towards that place referred to in the opening cutscene: Vault 15. Therefore, while the world map has "opened" the narrative possibility of the exploring game world, the world is still "closed" to players in that they can head in no other direction other than towards Vault 15. Although it is possible for players to explore the

world, the game gives the player no narrative direction to do so, beyond the search for the Waterchip.

On approach to Vault 15 the player will stumble across another location: the town of Shady Sands, where they have the option to enter their first hub location. This was an intended design decision, as Tim Cain explains:

We did that deliberately for *Fallout 1* and we did it in *Fallout 2*. We would tell you [the player] to go one place and you'd get it marked on the map and then have to go [to] another place that we'd deliberately place [en route]. So you were going along and the map would automatically stop and go, 'You see a town.' And you're like, 'Oh, I'm going to go there.' We just did those deliberately. (Appendix 8.1)

This event introduces players to the exploration aspect of *Fallout*, indicating to the player that it is possible to discover locations on the world map through exploration. Like the cave environment and the provision of Vault 15 as a destination, this is part of the experience designed by the developers. Each element contributes to the player's sense of accomplishment through their progress towards the main quest. Furthermore, the town of Shady Sands introduces the first option for the player to explore a different location, which is tangential to the completion of their main quest.



Figure 9: The world map of *Fallout 1* as seen by the player-character on exiting Vault 13. The dotted red line is the player's progress in the game world while the circle in the middle is Shady Sands. Vault 15 is farther east. Source: *Fallout*

It is at this point that the player is free to act in a variety of ways to progress the narrative of *Fallout 1*. Shady Sands offers players a range of possible actions, each with its own consequences for how they wish to proceed in the game world. This provides some alternative action for the player besides

finding the Waterchip. Many of the quests within Shady Sands are thus catalysts; they contribute to the overall narrative of *Fallout 1* but are not critical for the completion of the main quest path.

Although the cardinal functions form a 'golden path' that can be followed as the default method to progress in *Fallout 1*, the differing paths that the player can take means that there are a number of ways to arrive at these cardinal functions. The introduction of Shady Sands marks the transition for the player between following their main quest and being active in how they explore the game world.

To prevent the player from forgetting about the main quest, *Fallout 1* reminds players periodically of their main objective. These reminders are provided in the 'Pip-Boy' journal, as well as through cinematics that occur after a certain period of time to remind the player that they still have a Vault to save. As Tim Cain explains:

That [the Waterchip] was one of the biggest long-running arguments among the development team. There were a few people who felt that the timer needed to be there. They wanted to give a sense of urgency. [...] they felt the story didn't work if the player didn't think his Vault would die.

Cause [the development team] said, 'What if we tell them [the player] to get the Waterchip and they never do it? What if they wander the wasteland for years and never get the Waterchip? Are people just back in the Vault going, "Hey, we're thirsty?"'

So, I was convinced that the timer was needed.

[...]

I think the first patch in addition to fixing bugs removed the timer. And then we just said it was a mistake. What happens now: they tell you they're running out of water. You still get the cutscenes but after the last one they say, 'The water's really low, we're going to die any day now' but then they didn't die. (Appendix 8.1)

The player is free to explore the wastelands as they wish; however, game dialogue and reminder cutscenes constantly refer to the main quest of retrieving the Waterchip. When the player introduces themselves to other characters there is always an option to ask about the Waterchip. At certain points within *Fallout 1* after time has progressed in-game, the player will see a cutscene depicting the water levels in Vault 13 going down. Much like theatrical choruses (Weiner, 1980, p. 206), or a recap in a television show (Thompson, 2003, pp. 67-69), these game notifications provide players with constant reminders to search for the Waterchip, and emphasise why it is important. Although the player is free to explore the world, they are reminded of their overall goal through

hints as where to go to complete the cardinal function: in this case, a way of discovering the Waterchip for Vault 13.

The paratext couples with the introductory cardinal function to guide the player into the text of *Fallout 1*. The cardinal functions convey the goals of the game to the player through cutscenes and the words of in-game characters. Furthermore, the player is encouraged to care about their character through the alignment of character and player goals, which are established through the player's actions and dialogue. The introductory cardinal function's establishment of the game world, the player-character and the goals of *Fallout 1* provide the groundwork for the rest of the videogame.

2.4.2 The Introduction Cardinal Function of *Fallout 2*

Fallout 2 introduces the player-character in much the same way as *Fallout 1*, establishing the player as part of the game world. As *Fallout 2* was released only a year after *Fallout 1*, the changes in development are not as radical as those seen later in the Bethesda developments; however, the second game displays some important differences.

The paratext of the box art (Figure 10), the game manual (Figure 11), the splash screens and the familiar UI are all designed to aid the player's immersion in the videogame. The main difference within *Fallout 2*'s paratext is the positioning of the player-character as a descendant of the Vault-dweller from *Fallout 1*. While this is hinted at in the main game, it is effectively presented as fact in the game manual through the written musings of the Vault-dweller (Figure 11). The game world and game mechanics are established through the paratext; however, the establishment of game world in *Fallout 2* is not as critical as it was in *Fallout 1*.²⁷ As the game world has already been established in *Fallout 1*, *Fallout 2* does not need to provide as much an emphasis on creating the game world in order for the premise of the videogame to be understood. The box provides an intertextual link to the previous *Fallout* instalment (Figure 10) and in a way this new text's content relies on *Fallout 1*'s success (Situmeang et al., 2014, pp. 1467-1468). This development of *Fallout 2* can be seen as a progression and improvement of *Fallout 1*.

²⁷ For further exploration of world building see Mark Wolf's *Building Imaginary Worlds: The Theory and History of Subcreation* (2014, pp. 134-146).



Figure 10: The box art for *Fallout 2*, showcasing its similar design to *Fallout 1*. Source: Mobygames

Leonard Boyarsky envisaged that the events of *Fallout 1* could operate on a mythical level, where the story was being retold many years after the events occurred:

That really permeated *Fallout*, and you know, back into *Fallout 2* where you're a native now. Because that's mimicking the Road Warrior thing, where you know the character from the first game is now this myth. (Appendix 8.2)

The *Fallout* universe was considered to be one of its main attractions for future developments of the franchise. In fact, at times the narrative concerns of the world superseded the narrative of the individual games, as Leonard Boyarsky affirms:

It [art within *Fallout*] had to deal with the bigger world, because you know our goal. We didn't really think about this until later. But once we created this world, it was, our idea was that you could do anything in it. We thought it was a really cool world and that's one of the reasons we presented this idea to the owner of the company.

We said, 'You could make strategy games, you could make action games in this world,' and they went and made *Tactics*²⁸ after we were gone.

So, I believe that obviously that they thought it was a good idea too. So, it wasn't actually the narrative of the game; it was more about the narrative of the world – 'What is this world?' –

²⁸ *Fallout Tactics: Brotherhood of Steel* released in 2001 was a later production by Interplay Entertainment that focused on the combat mechanics of *Fallout 1*. It does not have the same open world structure or role-playing mechanics of the other videogames in the series.

so that [was] part of it. Immersing you in the world was more important than the specific story we were telling. (Appendix 8.2)

The subsequently developed spin-off games *Fallout: Shelter* and *Fallout Tactics: Brotherhood of Steel*²⁹ all refer to the consistent and intriguing game world established through the artistic direction of *Fallout 1* and *Fallout 2*. Thus, the establishment of the *Fallout* world in *Fallout 1* allows for a range of *Fallout* videogames to exist as long as they have broadly similar thematic and narrative elements like radiation, the wasteland, and vaults. This development of the *Fallout* world through *Fallout 1* and the reinforcement of those themes within *Fallout 2* ensure that the development of each new *Fallout* videogame contributes to the fictional world.

The opening cutscene in *Fallout 2* focuses on further additions to the game world of *Fallout* through the introduction of new factions to the game world. This is established through the depiction of Vault-dwellers stepping out of their underground shelters to be shot by a foe in armour reminiscent of the figure on the front box art (Figure 10). The introduction of *Fallout 2* also muses about how the game world was created through nuclear annihilation; however, the cutscene not only introduces the game world but also presents the player's adversary for the course of the game.

After viewing the video, the player is invited to start a 'New Game' from the main menu and create a new character in the *Fallout* world. At this point, the player can choose to create a character that reflects their play style, or choose from three pre-made characters. *Fallout 2*'s character development directly mimics that of *Fallout 1*; the primary difference is that the paratext establishes the player as a descendant of the player-character from the first videogame (Figure 11). Rather than establishing the game world, *Fallout 2*'s paratext emphasises the link between the two videogames.

²⁹ *Fallout: Shelter* was released in 2015 as an addition to the release of *Fallout 4*, and *Fallout: Brotherhood of Steel* was released in 2004, but did not follow the same role-playing mechanics as the *Fallout* series.

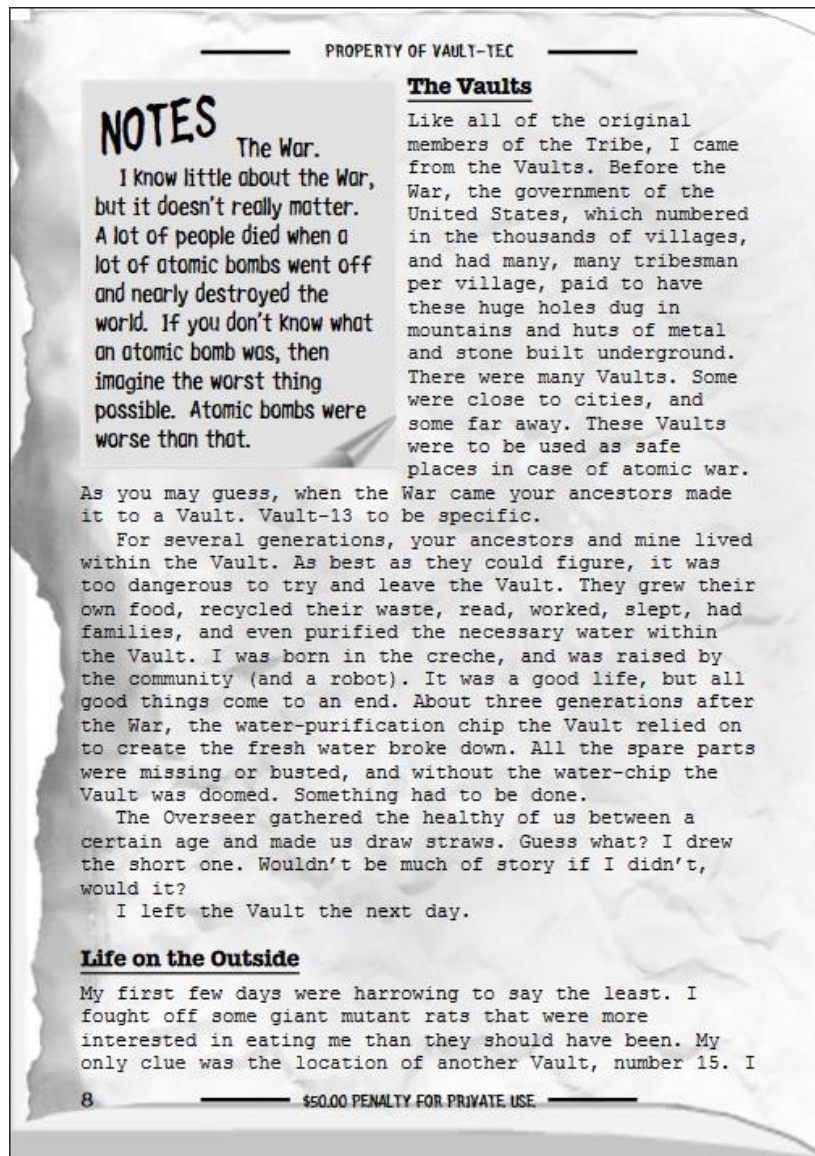


Figure 11: Manual for *Fallout 2*. Source: *Fallout 2*

The player is given character control immediately after character creation, when they are introduced to the Temple of Trials tutorial section (Figure 12). As is evident in the above screenshot, the design of the game world, the cavalier perspective, and the controls are all similar to *Fallout 1*. However, unlike *Fallout 1* where the player could access the world map immediately, in *Fallout 2* the player is only able to progress through the videogame's narrative by completing the Temple of Trials.



Figure 12: The Temple of Trials, the first in-game scene of *Fallout 2*. Source: *Fallout 2*

According to Tim Cain, the Temple of Trials was introduced at the behest of the producers (Interplay Entertainment) and does not fit neatly within the narrative of *Fallout 2*:

The Temple of Trials we were forced to put that in by the head of marketing, or somebody, somebody came and told us we had to do it because they said that there needs to be a tutorial. And we didn't want to do it. So, we did it but it was added in quickly and without much thought. (Appendix 8.1)

While the Temple of Trials limits the actions available to the player, the trials provide a chance to determine whether the player's character can survive the game world. The player-character is introduced to various combat scenarios involving rats, traps and scorpions. Once they have completed the trials, players are treated to another cutscene video that introduces the player to their main quest, the search for the Garden of Eden Creation Kit (G.E.C.K.). The cutscene also establishes the character's role as the saviour of the village, placing the player-character in the village of Arroyo. Arroyo functions similarly to Shady Sands: the area provides a number of optional quests that the player can complete before they continue on their journey. Compared to *Fallout 1*, the introduction of *Fallout 2* is much more immediate and open: the Temple of Trials provides instantaneous combat experience, and the community hub of Arroyo provides alternative routes right from the start of the game. Once the player chooses to leave Arroyo, they are encouraged to go to 'The Hub' to find Vic, the town's trader, and enquire about where to find a Vault with a G.E.C.K.

The differences between the two beginnings of *Fallout 1* and *Fallout 2* are small, but they have a big impact on the progression of the narrative. In *Fallout 2*, the player is provided with an immediate test of their character, which, when compared to *Fallout 1*, undermines the notion that the main narrative is a path for the player to traverse regardless of their character type. Instead, the character must be one who can withstand the trials of the temple. To relate this back to Tim Cain's GURPS anecdote, in *Fallout 2* players with a skill like *savoir faire* were likely to perish before they could use their skills. Furthermore, there is a dissonance between the character's motivation, to save the village and find the G.E.C.K., and the purpose of the Temple of Trials, to acclimatise players to the controls (Bateman, 2009, pp. 145-146; Dansky, 2007, p. 133). Though the player is free to complete their task after completing the Temple of Trials, as a narrative introduction it is largely disconnected from later events in the videogame.

The next section of *Fallout 2*'s introduction within Arroyo establishes a narrative foundation for the rest of the game, as the player is provided with a crisis to resolve. This crisis opens up the videogame narrative to the player, providing a direction for the player-character to go in. Instead of the lengthy introduction of *Fallout 1*, which introduces each narrative event and opens the narrative in a gradual manner, *Fallout 2* provides it all in one chunk within the introduction of Arroyo. As players are assumed to be literate in game form, narrative play and style from playing a range of videogames (Gee, 2014, p. 19), the same can be seen in the design of the *Fallout 2*. For *Fallout 2*'s game world, the intention is not to reiterate previous structures, but to improve upon these designs.

Additionally, the player is again given a 'default path' to traverse the world map; however the range of optional quests and alternative directions is much more complex than in *Fallout 1*. On arrival at the Hub, the player is informed that Vic is in another town, but that they might find the G.E.C.K. in a variety of locations. The player is offered no solid leads on how to progress the narrative, and is instead given a number of catalysts that the player may explore to open the narrative further. The design of the main quest creates less of a definitive direction that the player must follow, and so exploration is the only way to progress. Moreover, without a time-limited task like finding the Waterchip in *Fallout 1*, the player can explore the world of *Fallout 2* without the threat of triggering a fail-state. In this presentation of the cardinal function, there is more emphasis on the player's exploration of the world rather than a rigid structure that the player must follow.

Fallout 2 reinforces much of the world building that occurred through *Fallout 1*, but provides a more complex living world through the establishment of factions, from which the player can choose to work with – a choice that then determines the consequences when the player meets other factions. The next chapter explores this concept further; however, the introduction of *Fallout 2* establishes

the factional focus quickly through the location of The Hub, and through quests that revolve around the same event, but wish for different outcomes depending on factional allegiance. *Fallout 2* contributes to the world building of the franchise by providing further game content such as AI complexity, and a method for traversing the game world (players are able to quickly travel if they find a car), improving upon the original content of *Fallout 1*. Building on the foundations established in *Fallout 1*, the introductory cardinal function in *Fallout 2* focuses strongly on factions and new mechanics, and is therefore able to enrich the world of *Fallout* through improvements to its narrative and game mechanics, allowing more complex narrative structures to be formed.

2.4.3 The Introduction Cardinal Function of *Fallout 3*

There was an 11-year gap between the release of *Fallout 2* and the release of *Fallout 3*, and the consequent technological developments, different publisher and new development team produced a different sort of introductory cardinal function. Although *Fallout 3* emulates several aesthetic and diegetic themes of *Fallout 1*, the development does not simply improve upon the previous videogames, but instead provides a different interpretation.

Fallout 3 alters the presentation of the ‘*Fallout* experience’ through the paratext’s slight departure from the physical designs of *Fallout 1* and *Fallout 2*. Although *Fallout 3* captures much of the same aesthetic, the design of the box art (Figure 13 and Figure 14), the information in the manual (Figure 15 and Figure 16) and the installation procedure do not promote *Fallout 3* as an experience in the same way as *Fallout 1* and *Fallout 2*; rather, they emphasise *Fallout 3* is a videogame. However, the collector’s edition of the game (Figure 14) provided more objects that echoed the style of Tim Cain and Leonard Boyarsky’s ‘experience’. This collector’s edition included a ‘Vault Boy bobblehead’ (which is an in-game item), *The Art of Fallout 3* concept art book, and *The Making of Fallout 3* DVD.



Figure 13: The box art for *Fallout 3* standard edition depicting a suit of power-armour. Different versions of the game also advertise their platform, whether it be Xbox360, PS3, or Windows PC. Source: *MobyGames*



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Figure 14: The Collector's Edition of *Fallout 3*, which includes a model of the in-game object of the Vault-Tec lunchbox. Source: Bethesda Softworks

The front cover of the manual (Figure 15) describes it as a 'Vault-Tec manual', an object the player might expect to find in the game world of *Fallout 3*. On reading the manual, the player is introduced to the world of *Fallout* and to the main objective of finding the player-character's father, James. On further reading, the player is also treated to some diegetic content (Figure 16) in the form of inserts

in the manual's text. While most of the manual addresses the reader as a player or consumer of the videogame, the inserts address the reader as a member of the game world.

Andrew Trevillian and Steven Conway's "Blackout!" illuminates paratext's method of audience address by distinguishing between the operational needs of the player and the fictional enactment of the player-as-character (2015, p. 72). Similarly, Johan Huizinga's term coined in *Homo Ludens* 'magic circle' (1949, pp. 10-12) identifies the space within which audiences interact with a game text: 'the magic circle, the temple, the stage, the screen... are all in form and function play-grounds... All are temporary worlds within the ordinary world, dedicated to the performance of an act apart' (1949, p. 10). Inside this magic circle, players perform videogames in a prescribed manner. Trevillian and Conway improve upon Huizinga's notion to posit that the social environment, player and game all interrelate to form the overall scheme of play: 'play cannot exist without a whole host of allied objects colluding' (2015, p. 95). For Trevillian and Conway, these different objects provide 'levels' at which the player can be addressed, so players talking to a friend within a videogame about what they did on the weekend would be operating at a social level; however, when the player starts role-playing, acting like their character, they are operating at a game level.

In *Fallout 3*, there is a demarcation between the level at which the game addresses the player-as-operator³⁰ and when it addresses the player-as-character. *Fallout 3* expects its players to approach the videogame through its paratext, primarily as players who are aware of the game world. This portrayal connects the player-character to the game world, yet maintains an awareness of the divide between player and character instead of combining them. The ten-year development gap between *Fallout 2* and *Fallout 3* underscores the importance of how the videogame remediates previous iterations of the *Fallout* world. However, before remediation can be addressed, the rest of *Fallout 3*'s introduction cardinal function should first be examined.

³⁰ For this chapter, the player can be considered an equivalent to Trevillian and Conway's term 'operator'.

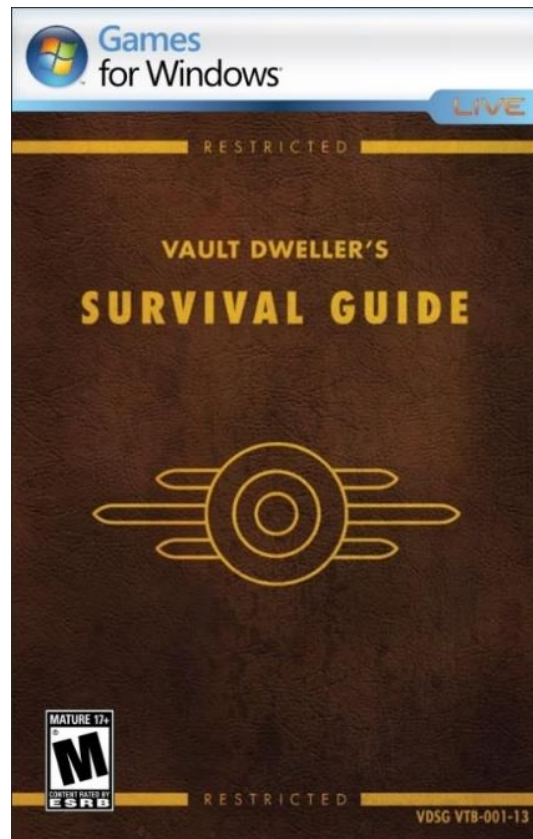


Figure 15: The manual for *Fallout 3*, whose design emulates that of the earlier games in attempting to replicate real-world objects, but provides an overlay of 'Games for Windows'. Source: *Fallout 3*

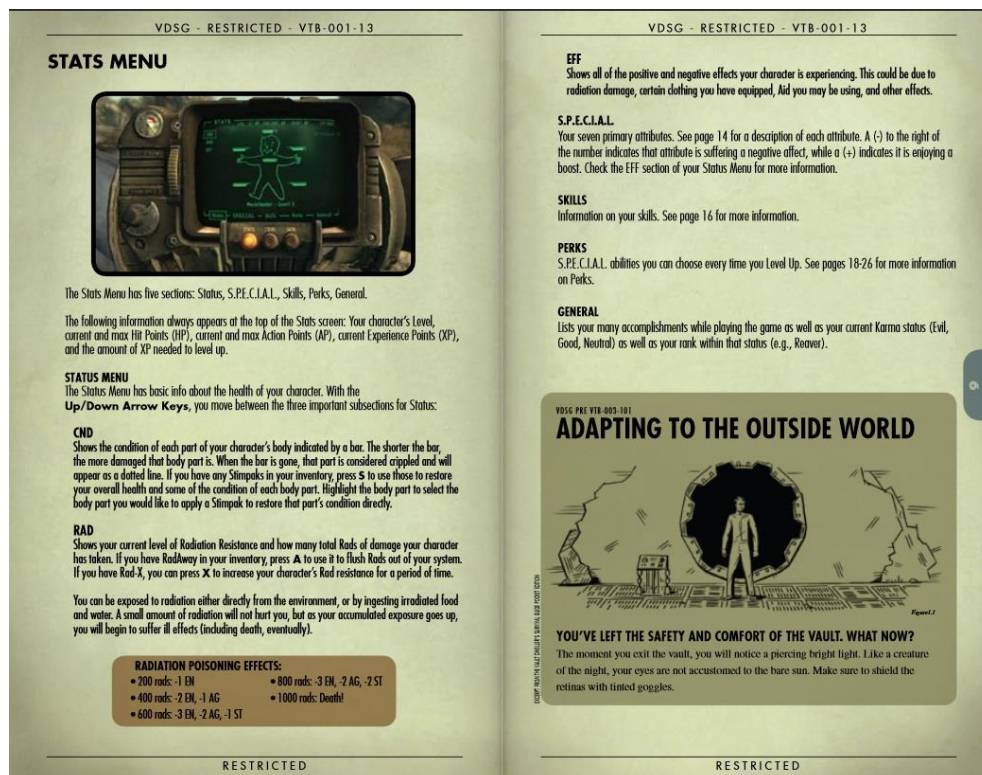


Figure 16: The diegetic content of the manual can be seen as inserts ('Adapting to the Outside World') into an explanation of the game controls and mechanics. Source: *Fallout 3*

On starting *Fallout 3*, the player immediately progresses to the main menu, which displays a series of slides that change in the background while the player is navigating the menu (Figure 17). Selecting 'New' starts the videogame. It is at this point that the game's internal paratext³¹ begins to address the audience as a character within the game world, further blurring the line between player-as-operator and their presence within the diegetic world.



Figure 17: *Fallout 3* main menu screen. Source: *Fallout 3*

After the selection of 'New', the introduction cutscene video begins to briefly explain the background events that caused the game world of *Fallout* to exist. Unlike *Fallout 2*, *Fallout 3* introduces the game world gradually to the player, with game mechanics revealed alongside diegetic information in a series of short segments that show the player-character growing up. As *Fallout 3* was produced ten years after *Fallout 2*, it re-establishes much of the game world and introduces changes to mechanics for its players. To begin this re-establishment, when starting a new game the player is invited to create a character through their literal birth into the game world (Figure 18). The use of in-game cinematic, UI and dialogue reinforces the diegetic elements of the videogame, so that the mechanical requirements of player creation can be situated within the game world. The inclusion of a character creation is presented in a diegetic manner: showing what the player-character will look like when they are grown up enables the player to create their character's appearance.

³¹ Paratext can include some sections internal to the videogame (in-game paratext) such as menus, and the use of particular fonts for the user interface or loading screens (Dunne, 2016b, pp. 285-287).



Figure 18: *Fallout 3* character selection process provided in-game. Source: *Fallout 3*

Once this character creation is completed, the videogame jumps forward in time to when the player-character is a toddler and the player must choose their attributes (Figure 19). This attribute selection is facilitated through the use of a children's book where the players can choose their attribute levels through the 'S.P.E.C.I.A.L.' system. The use of this children's book and the player-character's role as a toddler lets the player grow with their character, complementing the immersion of the videogame.

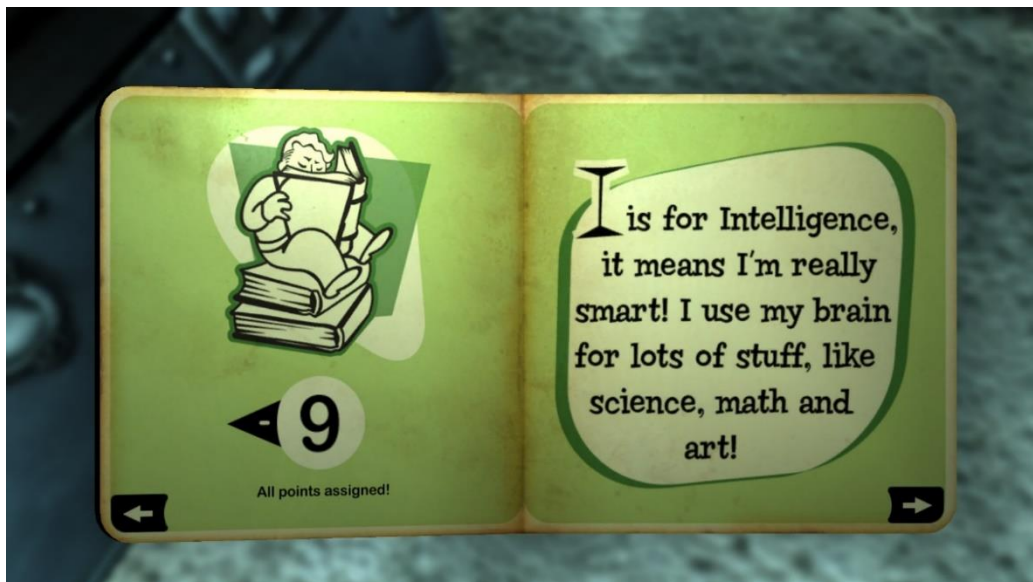


Figure 19: *Fallout 3* determination of base statistics can be seen as still relying on the S.P.E.C.I.A.L system. Source: *Fallout 3*

Fallout 3 again progresses to the player-character's sixth birthday, when the player-character is gifted with a BB gun. Players are then introduced to the Vault Assisted Targeting Scheme, or V.A.T.S., which enables the player to attack enemies by choosing different body parts to aim for and then calculating the result (Figure 20). This is an adaptation of the previous 'Targeted Shot' mechanic presented in *Fallout 1* and *Fallout 2*.

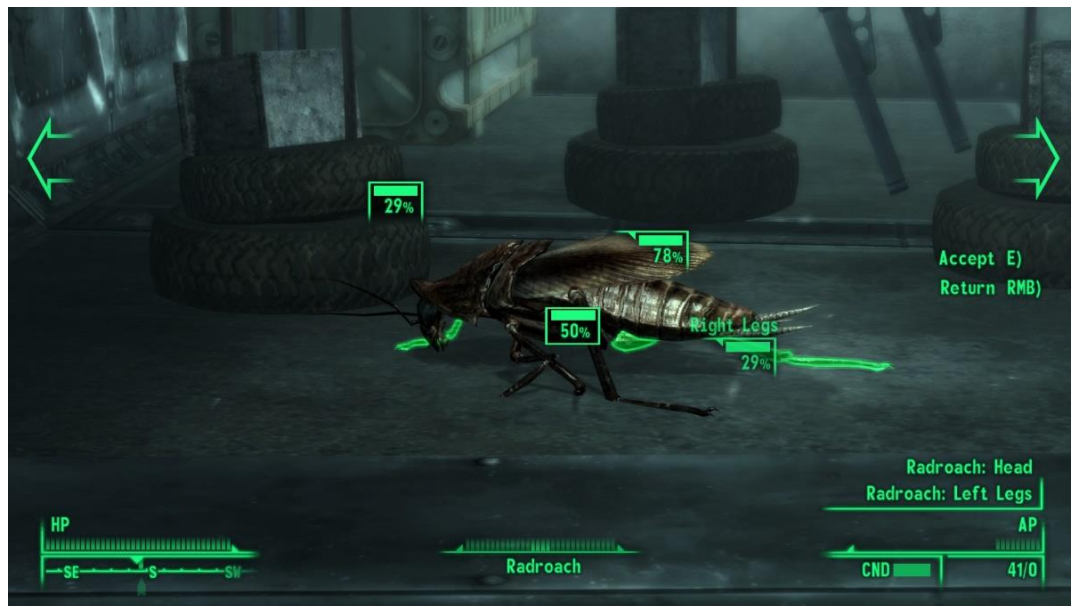


Figure 20: Displays the V.A.T.S. heads-up display for the player-character post birthday party. Source: *Fallout 3*

The next scene introduced for the player-character is the Generalized Occupational Aptitude Test (G.O.A.T.) section (Figure 21). This scene establishes the character's skill points for the rest of the videogame, which differs from the use of the skills system in the first two videogames (Figure 6). Instead of choosing their skill points from a list, the player is given a series of questions to answer that determine their skills.

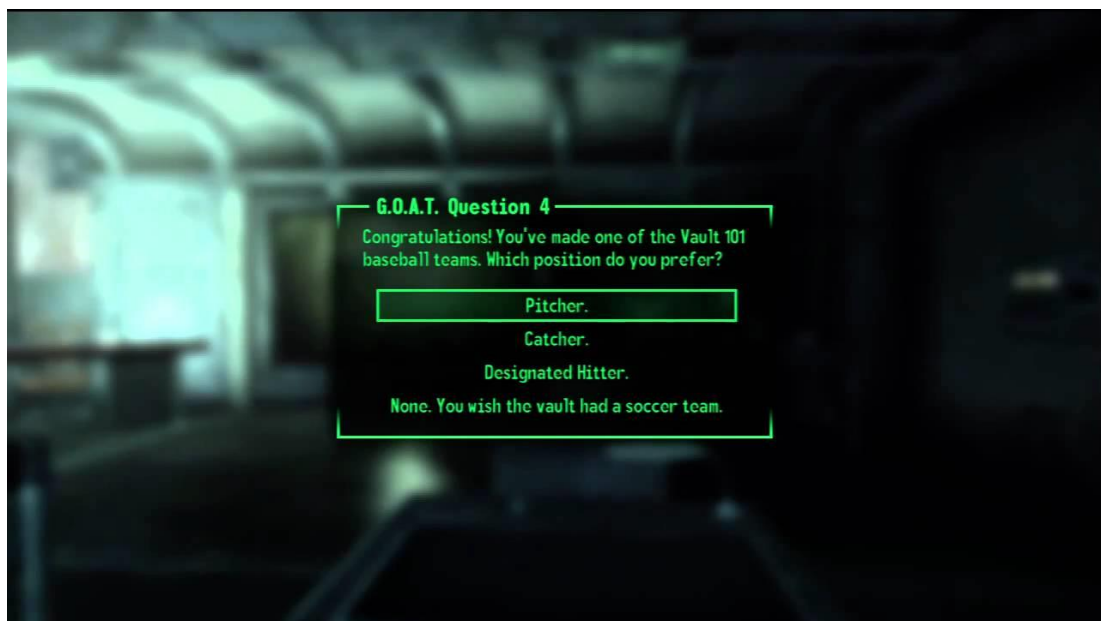


Figure 21: A display of the G.O.A.T. questions in the classroom. Source: *Fallout 3*

It is important to note that the character creation scene and the introduction of attributes (Figure 19), V.A.T.S. (Figure 20), and skills (Figure 21) in *Fallout 3* all provide a narrative explanation for the process of character creation. This player-character development was limited in the earlier videogames: players made their characters, which then just existed in the game world. While the

physical paratext of *Fallout 3* does not emphasise the connection between player and character, the character creation process weaves the player and character together through the combination of an effective narrative and the player's choices. Furthermore, the developers simultaneously teach the player how to play the game; the presentation of game mechanics with each narrative development (or the player-character's growth) is a tutorial hidden within the diegetic development of the player.

Fallout 3 remediates many features of the Interplay Entertainment *Fallout* videogames. In this remediation, each game mechanic from *Fallout 1* and *Fallout 2* has been reintroduced and explained within the new game engine. As discussed by Jay Bolter and Richard Grusin, remediation relates to the introduction or reapplication of media or themes within different media forms; 'What is new about new media comes from the particular ways in which they refashion older media and the ways in which older media refashion themselves to answer the challenges of new media' (2000, p. 15). Although Bolter and Grusin are analysing the form and not the content of media, the difference of content in *Fallout 3* is so marked that such remediation of game mechanics, visuals, and game world lore, has occurred in the game's introduction. In this manner *Fallout 3* has refashioned aspects of *Fallout 1* and *Fallout 2* to provide a foundation for its new content. *Fallout 3* needed to reinvent the *Fallout* franchise into a contemporary videogame for 2008: hence, it remediates attribute selection by presenting it through a children's book; it reconfigures 'Targeted Shot' as V.A.T.S. and skill tagging through the G.O.A.T. Although not directly referenced within the videogame, *Fallout 3*'s further shift to three-dimensional first-person viewpoint from the earlier cavalier perspective is a remediation of viewpoint and graphical capabilities.

The design of the *Fallout 3* invites a singular progression in how the narrative progresses in the beginning scenes, much like *Fallout 2*. However, *Fallout 3* does not begin its introduction with a crisis that opens the narrative up, but instead builds the world by establishing indices and informants in the design of the Vault, and by the discussions that the player-character can have with other characters in the game world. Indeed, the first concern of *Fallout 3* appears to be committing to the fidelity of the *Fallout* universe rather than presenting a new story within its world. *Fallout 3* presents its Vault scene as a microcosm of the overall world, where players are exposed to many aspects that they will encounter through their playthroughs. Once these mechanics are illustrated to the player and the game world has been established, the crisis of the cardinal function reveals itself. In the final scene of the introduction, the player-character is woken up and informed that the Vault is under a lockdown and that the security forces are looking for the player-character to discover their father's fate. The player is encouraged to escape through stealth, talking or combat through the Vault, and is charged with finding out what happened to their father. In this regard *Fallout 3* can be considered to incorporate both *Fallout 1*'s drawn-out introduction that familiarises the player to the game world,

and *Fallout 2*'s immediate capacity for decision-making provided by placement within Arroyo. The player-character in *Fallout 3* is presented with a vast amount of backstory and training, before being set free within the game world of *Fallout 3*.

Fallout 3's introductory cardinal function re-examines the *Fallout* world, combining influences from the previous games and Bethesda Softworks' own design aesthetic. This establishes *Fallout 3* as part of the same franchise in the realm of aesthetic design and narrative lore, while also positioning the videogame as different from the design of its game engine, and how it addresses its audience. This development reflects the change in the technology and expectations for role-playing games, and serves to remind us that, while different from previous iterations, *Fallout 3* still needs to establish game rules, narrative goals, and the player-character relationship.

The introductory cardinal functions of the *Fallout* franchise establish the player-character, the game-world, the objective and the controls of the videogame. Consequently, the player and the text are both free to act and react to subsequent events in the videogame.

2.5 The Middle Cardinal Function of the *Fallout* franchise

The next cardinal function in each of these videogames is the middle cardinal function, which resolves the initial crisis established by the introduction. After this crisis is resolved, another crisis reveals itself to the player-character, endowing their exploits with relevance to the fate of the game world. The resolution of one crisis and introduction of a new crisis effectively ends the player's discovery of the game-world, providing the new focal point of the player-character's newfound mastery of and connection to the game world. This section explores the middle cardinal functions for *Fallout 1*, *Fallout 2* and *Fallout 3*, examining the resolution of the initial crises and how new crises are introduced. Paratext and the player-character relationship, while present in the middle cardinal function, are less relevant and so will not be examined in this section. This analysis of middle cardinal functions focuses on the resolution of the initial crisis and the creation of the next.

The middle cardinal function reveals how the videogame is structured to conclude the initial cardinal function, and also serves to evaluate what the player has done and how the world reacts to these actions. In this way, the middle cardinal function provides the text of a videogame with a discernible point at which the narrative develops. Jesper Juul observes, in his discussion of time in videogames and fragmented chronological development: 'The actions that the player performs also influence events in the fictional world, and the time taken to play is projected onto the fictional time of the

game world' (2011, p. 138).³² So, cardinal functions represent the moments when the player's actions are projected onto the 'fictional time' of the game and so represent the game's distinctive mark that the player has done something momentous.

The Barthesian notion that cardinal functions are continuous and consequential can be seen through the videogame's need to resolve one event and begin another. Barthes identifies this in-between action of cardinal functions as akin to a 'fugue', 'which "pulls in" new material even as it "holds on" to previous material' (1978, pp. 103-104). The previous material being 'held onto' is the initial crisis, while the new crisis is the 'pulled in' new material. The middle cardinal functions in the *Fallout* franchise exemplify this 'fugue' by closing a section of the narrative (such as *Fallout 1*'s initial crisis finding the Waterchip), and going on to build upon that initial crisis by simultaneously initiating another crisis, opening the narrative and pulling in new material. The narrative possibilities of the initial cardinal function are closed so that nothing the player does at this point can contribute to the outcome; however, the player can progress towards resolving the new crisis that has now opened up. In this way, the overall narrative closes the initial crisis making it a "point of no return". but still makes the initial crisis a foundation for the next crisis.

The middle cardinal function begins with the resolution of the initial crisis from the introductory cardinal function. This happens in *Fallout 1* when the Waterchip is found in the Necropolis. In *Fallout 2*, it occurs when the G.E.C.K. is discovered in Vault 13. Finally, the discovery of James, the player-character's father, triggers this function in *Fallout 3*. Each of these videogames contains a similar moment when the initial crisis is resolved; the player has completed their task as laid out in the introduction.

The resolution of initial crises is the most integral to the progress of the plot as it is the most 'risk laden' (Barthes, 1978, p. 95). Risk in this context is not directly related to gameplay difficulty. Rather, the risk in these middle cardinal functions is defined by the content that they house: there is a chance that the Waterchip, G.E.C.K. or player-character's father cannot be found, and thus the player risks failure at their task. However, videogames limit this risk: though the narrative content may be risky, the game developers readily provide the possibility to complete these 'risky moments'. For example, each main quest section in *Fallout 1* can be accomplished through the three paths of

³² It is worth noting that Roland Barthes echoes this sentiment of the use of time within texts: 'From the point of view of narrative, what we call time does not exist, or at least it only exists functionally, as an element of a semiotic system: time does not belong to discourse proper, but to the referent' (1978, p. 98). For both Barthes and Juul, time is abstracted and demarcated through the unfolding of events in the text rather than the time experienced by the audience.

sneak, conversation and combat, regardless of the player-character's statistics. Tim Cain elaborates on this:

Nowadays they call them [main quest points] the 'pillars of the game' or the, when you're making a game, 'specification'. Back then we didn't have a 'game specification' but what we had noticed was, we were worried because we were classless. We weren't like *DnD*, where *DnD* says, 'I'm playing a thief' at the time you start. So you [the player] didn't pick a class. We felt we should impose a sort of encouragement to 'Hey, here's a way you can fight your way through,' 'here's a way you can sneak your way through,' and the reason I wanted a 'talk your way through' is – since we had speech as a skill – I wanted to encourage a pacifist playthrough. (Appendix 8.1)

Thus, the game included a variety of methods to enable the player to complete the main quest segments of the videogame. Although for some characters the completion of the 'risky' moments may be difficult, the videogames were designed so that characters could progress through these middle cardinal functions. However, unlike side quests, there is no alternative to the failure of this middle cardinal function; the structure and progress of the videogame require that the goal is achieved so that other events can occur. Following Frasca's notion of scripts, the failure to act out the script does not lead to a different interpretation, but rather means that the videogame cannot continue. Similarly, although failure can be factored into videogames as part of the narrative – such as Jordan Mechner's use of 'No, that's not the way that happened' in *Prince of Persia: The Sands of Time* (Mechner, 2010, p. 117) – in the *Fallout* series such failure in the main quest closes the narrative possibilities of the game.

Therefore, the middle cardinal objective is a necessary structural step for the continuation of the overall passive narrative of the videogame. The middle cardinal function in turn facilitates a succession of other side quests and game mechanics for the player to play out, as a major event has occurred in the videogame that allows the progression of narrative time.

In each of the *Fallout* videogames a secondary crisis builds upon the resolution of the first cardinal function. In *Fallout 1*, the player learns that supermutants have been roaming and attacking settlements, threatening the player-character's Vault. In *Fallout 2* the Enclave captures the player-character's village, Arroyo, and the player-character must save it. And in *Fallout 3* the player-character's dying father entrusts them with the purification of the irradiated water within the Washington's D.C. area. These new crises are introduced immediately after the resolution of the initial crises, building upon the events and locations that the player has experienced through their resolution of the initial crisis. This Barthesian fugue is a continuation of the ebb and flow of narrative

possibility; a secondary crisis is necessary to show the consequences and complications of the player's actions. In this sense it serves a similar function to the introduction cardinal function; each new crisis promotes further exploration into the *Fallout* game world.

In both *Fallout: New Vegas* and *Fallout 4*, the middle cardinal function replaces this definitive continuation of an infallible narrative with a section of fail-able catalysts with which the player can interact to continue the videogame. This enables the player to 'fail' at a cross-section of middle cardinal functions before they are given one last chance to succeed and progress the narrative of the videogame.

In *Fallout: New Vegas*, the middle cardinal function crisis is deciding which faction to side with once the player-character has acquired a powerful platinum chip. The possible narrative routes are dependent on how the player-character has operated with or against numerous factions, including the New Californian Republic, Caesar's Legion and Mr House. If the player-character has a bad relationship with one of these factions, they cannot progress the narrative with them and will instead have to operate with another group. In this way, the middle cardinal function of *Fallout: New Vegas* behaves more like a secondary quest, as the failure of one faction's quest still leaves the player an alternative route to progress the videogame. Even if the player 'fails' with all factions, they are still able to work as their own faction to complete the videogame. So, while the player can 'fail' a quest that occurs around the middle cardinal function, the risk of the videogame not continuing is mitigated by the variety of other quests the player can take to complete the middle cardinal function. The middle cardinal function of *Fallout: New Vegas* thus combines a passive narrative of necessary progression with an active narrative based on the player's choice and the text's reaction. The design of *Fallout 4*'s middle cardinal function is similar to that of *Fallout: New Vegas* and is further explored in the next chapter.

Although *Fallout: New Vegas* and *Fallout 4* have a different structure from the earlier *Fallout* videogames, they still rely on the fugue of resolution and a new crisis to close and open the narrative. Because the middle cardinal function operates as a progression signpost, the player is not required to make singular pre-specified actions, but can act in any manner that the videogame recognises as progressing the narrative. *Fallout 1*, *Fallout 2* and *Fallout 3* do not present this mutability; they require the predefined action and consequence of finding the Waterchip, G.E.C.K. and player-character's father, James. In contrast, *Fallout: New Vegas* and *Fallout 4* contain a variety of different resolutions and consequences through how the middle cardinal function operates.

The middle cardinal functions operate in two ways in these *Fallout* videogames. First, it accepts the player-character's resolution of the first cardinal function crisis. Then the middle cardinal function

opens up the narrative by providing another crisis for the player to solve. Both these steps demarcate the end of one period of action, such as the first act in a play, and the beginning of another. This, coupled with the notion of time in videogames, indicates that the resolution and initiation of crises is a necessary step for the progression of narrative time. As such, the middle cardinal functions provide a marker for players, conveying the conclusion of their exploration of the game world and the beginning of their mastery of the world. Other elements, such as secondary quests, can also progress as the narrative develops through the conclusion of a crisis. Consequently, the middle cardinal function structures the overall text by acknowledging that a critical point has been reached, and by progressing 'time' so that other events can occur within the videogame.

2.6 The Concluding Cardinal Functions

The concluding cardinal function 'closes' the narrative of the videogame. This aligns with Seymour Chatman's notion that 'the working out of plot (or at least some plots) is a process of declining or narrowing possibility. The choices become more and more limited, and the final choice seems not a choice at all, but an inevitability' (1980, p. 46). In videogames, this closure can be taken further, as the player themselves closes the videogame through their actions alongside the text's concluding remarks. The relationship between the player's actions and the videogame text is relevant to the key thesis questions regarding the narrative structures of the text and how they can be altered, as the videogame requires one last click from the player in the same way that the last page of a book needs to be read. Although there may be more 'work' on the part of the videogame player to progress through the text (Aarseth, 1997, p. 1) and variation in how that work can occur (Mukherjee, 2015, p. 123), the same text and reader relationship exists and indeed is necessary for the videogame to conclude.

The concluding actions of the first three titles in the *Fallout* franchise comply with these narrative standards of closure. In *Fallout 1* the player-character must defeat the Master and destroy the supermutant production facility. In *Fallout 2* the player-character must kill the Enclave's president and save the player-character's tribe. In *Fallout 3* the player-character must decide either to purify the water of Washington's D.C. from radiation or infect it with a virus that will kill all mutations. Regardless of their decision, the player-character must sacrifice themselves to administer the solution to the dam. These concluding cardinal functions are the final act of the videogame. These cardinal functions rely on the actions performed by the player-character throughout the videogame to determine the degree of the player's success.

The resolution of these cardinal functions is up to the player; much like the other cardinal functions there is a degree of choice in how the player can proceed. However, much like Boal's *Theatre of the*

Oppressed (2000), there can only be variation of the script and not a completely different structure. In *Fallout 1* the player-character can approach using stealth, diplomacy or combat to infiltrate the two bases and set off explosions to defeat the Master and the supermutants. In *Fallout 2* the player-character can use subterfuge, diplomacy or combat to infiltrate the Enclave. In *Fallout 3* the player-character can use combat, stealth or diplomacy to return to the Jefferson Memorial to purify or poison the water. For the player, the in-game consequences of these actions are limited, as they are at the end of the text and so their role within the world is finished. *Fallout 2* and *Fallout 4* do enable the player to continue playing the videogame after the concluding cardinal function; however, their actions have little to no impact on the narrative state of the game world.

The final part of the cardinal function is the resolution of the videogame, where the player is provided with the final reaction from the game text. After defeating the supermutants, the player-character in *Fallout 1* returns to Vault 13 with the Waterchip only to discover that they have been exiled from their community due to their exposure to the outside world, and so they are left to wander the wasteland. In *Fallout 2*, having saved people of Arroyo and Vault 13, the player-character builds a new community for his people and becomes an Elder. In *Fallout 3*, the player-character dies in the process of initiating the water purifier in the Jefferson Memorial, convince another person to purify the water, or doom the wasteland by letting the purifier explode. These narrative conclusions reinforce the strong connection between the player and their character and 'bookend' the game experience. The fact that all *Fallout* videogames bar *Fallout 4* and *Fallout 2* end with the completion of the concluding cardinal function echoes this player-character relationship. As the game is 'resolved', the player's activity ends and an epilogue is shown. This perspective shift and concurrent narration function as paratext, distancing the player from their character. In a way, this represents a reversal of Genette's 'airlock' or 'interlocking gates': the player and character are disassociated and the player-character relationship ends along with the videogame.

The concluding cardinal function resolves the remaining crises of the main quest, and ends the player's ability to act within the world. This ends the videogame's narrative, as there is no capacity for further narrative progression. The concluding cardinal function also provides an end to the player-character relationship as the player relinquishes control of their character.

2.7 Mapping the Cardinal Functions

The introduction, middle and end cardinal functions in *Fallout 1*, *Fallout 2* and *Fallout 3* provide the player with a road map that shows not just how they can progress the narrative of these *Fallout* videogames, but also how they are able to see the world. The clearest way to display the player's mapping is to superimpose them on the world maps of these videogames. This mapping visually

identifies where the main quest encourages the player to go, and reveals how, in providing this trail, the game structures the other elements of random encounters and side quests around these pivotal cardinal functions.

Key for Figures 21-26: [Introduction](#), [Middle](#), [End](#)



Figure 22: *Fallout 1*'s world map with the 'default path' mapped out in the intended order. Source: *Fallout 1*

Figure 22 depicts the intended progression of narrative with the introductory cardinal function route on the left, and the middle and end cardinal function illustrated on the right. Each of the locations at which the player can stop includes optional catalyst content. Some sections of these cardinal functions play out in two or more locations; in these cases both locations have been shown on the maps. Some locations have multiple uses; in these images the order of the cardinal functions is represented by the descending size of the markers. By contrast, Figure 23 depicts the cardinal function points necessary for the completion of the videogame. In these map depictions, catalysts are not in these locations. These two paths illustrate the different ways in which the player can interact with the game world. The set of pathways in Figure 22 showcases the intended method for players to travel to each location, consequently exploring most of the game world. Conversely, Figure 23 showcases how a player could potentially play *Fallout 1* to complete the game as quickly as possible. This latter path does not allow for a comprehensive navigation of the videogame's narrative; instead it focuses solely on the resolution of the main quest.

Focusing solely on the cardinal functions and taking the path to only the necessary narrative nodes – that is, the locations that progress the videogame's main quest – illustrates how a myopic focus on the main quest precludes the experience of exploration (Figure 23, Figure 25 and Figure 27). While

the player can potentially ignore the supplementary aspects of the narratives – the indices, informants and catalysts – this method of play possibly inhibits an enjoyable experience. The cardinal functions provide a foundation for other elements within the text, which means the progression can be offset by the player’s exploration and experimentation. Due to the open nature of these videogames, the player is free to arrive at these locations in any order and pursue the cardinal functions as they wish.



Figure 23: *Fallout 1*'s world map with the cardinal function nodes presented in a point to point manner. Source: *Fallout 1*



Figure 24: *Fallout 2*'s world map with the cardinal function points mapped out in the intended order. Source: *Fallout 2*

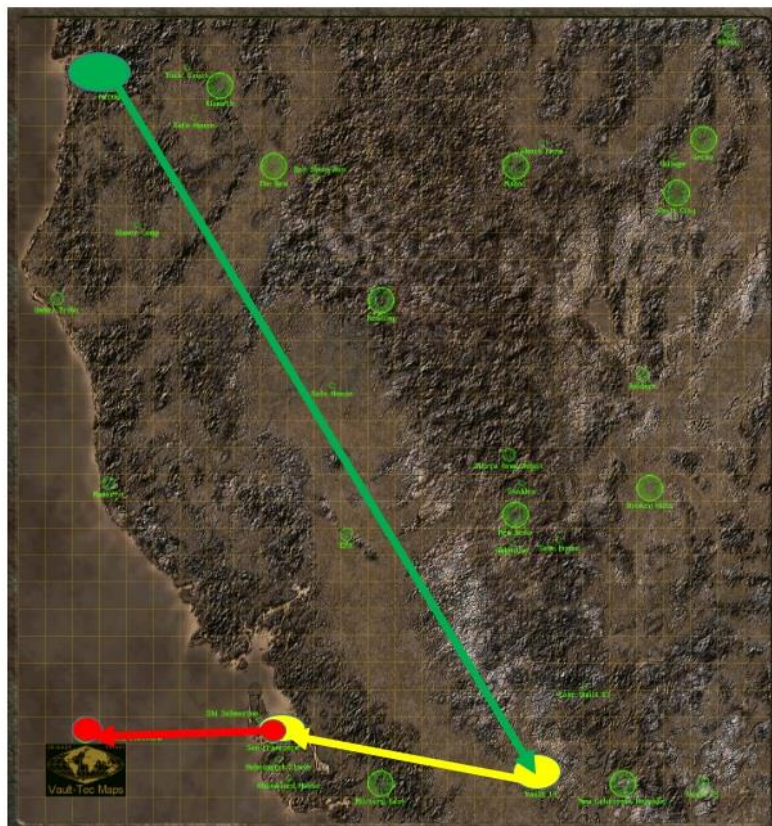


Figure 25: *Fallout 2*'s world map with the cardinal function nodes showcased in a point-to-point manner. Source: *Fallout 2*

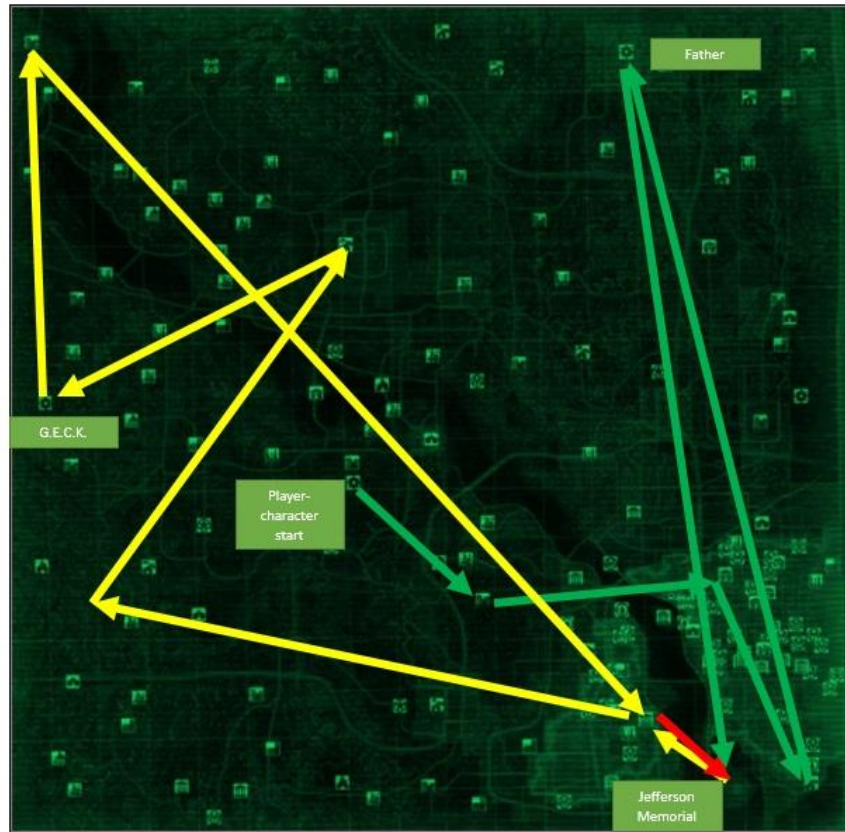


Figure 26: *Fallout 3*'s world map with the cardinal function points mapped out in the intended order. Source: *Fallout 3*

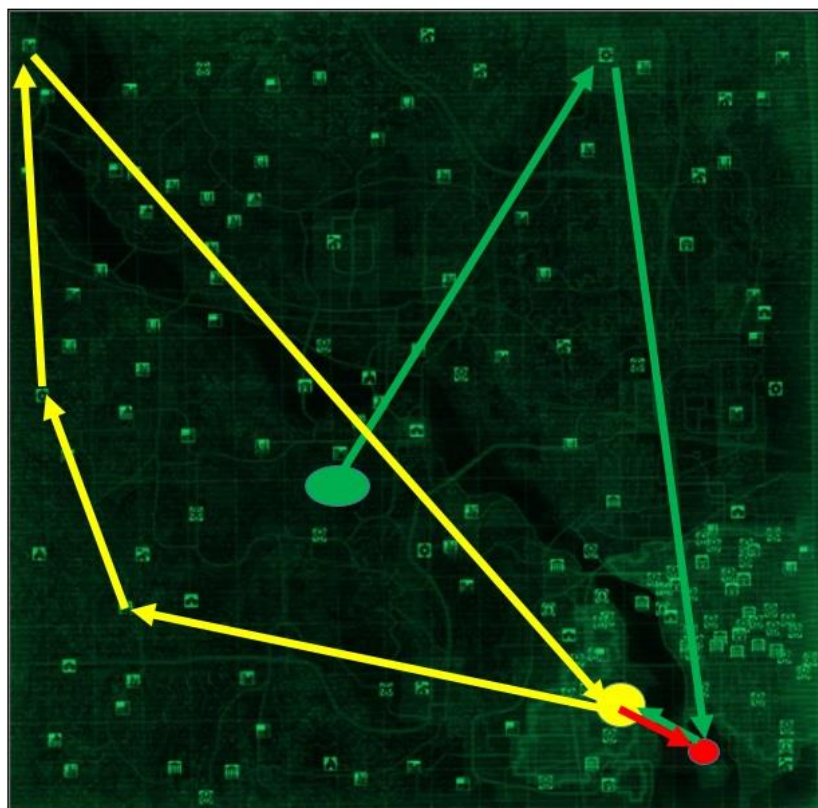


Figure 27: *Fallout 3*'s world map with the cardinal function nodes showcased in a point-to-point manner. Source: *Fallout 3*

The mapping of the narrative's 'golden path' visualises how the developers provided a trail to players to aid in the exploration of the game worlds (Figure 22, Figure 24 and Figure 26). This mapping showcases an opening up of the narrative through the intended progression of each cardinal function. In each section of the main quest the player is urged to go to a new location, and in their search, is further encouraged to explore the other areas presented on the world map. Much as Aarseth suggests that a videogame's text operates as a labyrinth (1997, pp. 5-8), the progression of the *Fallout* franchise's main quests forms the maze that players must explore if they want to reach the end.

These maps illustrate how cardinal functions provide a passive narrative with an introduction, middle and conclusion, each of which must be experienced to complete the game. However, the manner in which the player-character traverses and completes these areas is something that requires closer analysis of active narratives and audiences.

2.8 Analysis of the cardinal functions

Cardinal functions in the *Fallout* franchise fulfil a crucial role in the videogames, establishing a passive narrative that allows for the presence of elements including catalyst side quests. This creates a structure for the progression of narrative possibility, as the completion of each cardinal function resolves a narrative possibility by closing it down, and opens a new narrative possibility with the introduction of a new crisis. As each narrative possibility opens up, so does the ability of the player to complete side quests and explore the world further. This progression is much like Paul Goodman's axiom on poetic structure: 'The formal analysis of a poem is largely the demonstration of a probability through all the parts. Or better, in the beginning anything is possible; in the middle things become probable; in the ending everything is necessary' (1968, p. 14). The beginning of each of these videogames is open to narrative possibilities of all sorts; as the player progresses these possibilities are resolved further and further until the game finishes with the necessary concluding cardinal function. In this manner, the progression of the main quest cardinal functions allows the player to encounter the narrative possibilities of the game world.

Players are guided through these large worlds through the cardinal functions and are given narrative possibilities to explore, which decrease as the player progresses to the end cardinal function. This can be seen in *Fallout 1* and *Fallout 2*'s use of playable locations such as Arroyo or Vault 15, which, when visited, open up narrative possibility right up to the concluding cardinal function. In *Fallout 3* such narrative possibility is harder to demarcate as a result of its fully designed three-dimensional world. Compared to the abstracted world map of *Fallout 1* and *Fallout 2*, the permanent and interconnected world of *Fallout 3* provides more information about the game world and as such

gives more opportunity for the environment to tell a story (Carson, 2000). In *Fallout 3*, the journey to each of these cardinal functions constantly invites the player to get distracted and explore. Quests in *Fallout 1* and *Fallout 2* could only be found in settlement locations, whereas in *Fallout 3* these quests can be found almost anywhere in the fully explorable world map. This has the effect of presenting *Fallout 1* and *Fallout 2*'s narratives as more immediate, as the narrative events contrast more strongly against the random encounters.

The later game *Fallout 3* emulates the narrative style of *Fallout 1* and *Fallout 2*, but alters the way cardinal functions are used, increasingly utilising movement from a central location to different satellite locations, as with the Jefferson Memorial (Figure 26). By contrast, the default path of *Fallout 1* and *Fallout 2* maintains a linear progression through each town (Figure 22 and Figure 24). In this manner, later games present cardinal functions in ways that allow a different experience, as the cardinal functions do not lead the player to every area of the map, as occurs in *Fallout 1*, but attempt to provide a wide coverage of the world map to showcase the game world. The later *Fallout* videogames *Fallout 3*, *Fallout: New Vegas* and *Fallout 4* are better able to facilitate this exploration aspect, due to their larger size and three-dimensional world map.

Players who seek to finish the videogame as quickly as possible can head straight to the cardinal functions to complete the game. The fact that the *Fallout* videogames can incorporate this type of play shows the robustness of the narrative structure, and the necessity of cardinal functions. This method of completion is often seen in speedruns, a form of videogame playthrough that attempts to complete a videogame in the shortest possible amount of time.³³ Players with sufficient knowledge of the game can immediately seek out the cardinal functions to progress through the narrative (Figure 23, Figure 25 and Figure 27). This highlights the structural necessity of these cardinal functions, as they are effectively the framework that progresses the videogame forward; other aspects, such as side quests, are not necessary for the completion of the narrative.

This analysis of *Fallout 1*, *Fallout 2* and *Fallout 3* has shown that the cardinal functions provide a path of progress for the player to complete, which in turn opens up the narrative possibilities of the videogame. These narrative possibilities enable the development of further aspects of the videogame, namely, side quests and other catalyst. As such, the later videogames *Fallout 3*, *Fallout: New Vegas* and *Fallout 4* rely more strongly upon the cardinal functions than previous games, owing to the expansiveness of their three-dimensional design and their wider range of possible quest

³³ These are the February 2017 statistics for 'speed runs' of the *Fallout* series: *Fallout*: 4 minutes 56 seconds, *Fallout 2*: 14 minutes 17 seconds, *Fallout 3* 15 minutes 1 second, *Fallout: New Vegas*: 14 minutes 52 seconds, and *Fallout 4* 47 minutes 35 seconds (SpeedRuns, 2017).

locations. The player-character's actions and the side quests can be placed between cardinal function points and noted appropriately in relation to the cardinal functions.

2.9 Conclusion

This chapter has explored different methods of constructing passive narrative with a particular focus on cardinal functions. Cardinal functions are integral to the overall form of a narrative (Barthes, 1978; Backe, 2012; Frasca, 2003), as without such a structure the events of a narrative are not anchored. Furthermore, for a videogame the presentation of a cardinal function allows each narrative section of the videogame to progress as a discrete unit, enabling the player to explore within certain areas of the videogame without that exploration causing later complications in the narrative. Cardinal functions within videogames establish the game world, the scope, the player-character's role, the progression and conclusion of time within videogames.

This chapter has also investigated how cardinal functions structure the introduction, middle and end in the *Fallout* franchise videogames. The introductory cardinal function establishes the game world through paratext and through the player-character relationship. The middle cardinal function advances the narrative time of these videogames, acting as a fugue that presents the closing of one narrative and the opening of another to simulate time within these fictional worlds. The concluding cardinal function resolves and closes off the narrative in these videogames, creating this conclusion through a mixture of the videogame's final remarks and the player's own effort in concluding the events laid out by the videogame. This in turn deconstructs the player-character relationship through the use of paratext, as the player is addressed separately to the character that they had previously inhabited. The first research question, 'What are the narrative structures for role-playing videogames, such as the *Fallout* franchise?' is answered through the identification and explanation of the introduction, middle and concluding cardinal functions. Furthermore, mapping these cardinal functions onto the world map of *Fallout 1*, *Fallout 2* and *Fallout 3* visualises how these videogames narratively structure the player within a spatial text, while also illustrating that the locations of these cardinal functions are pivotal in encouraging players to progress and explore these videogames. This progression and the creation of an active is discussed further in the following chapter.

3 Active Narratives

This chapter focuses on how the active narratives of the *Fallout* videogames afford players the ability to act, and how these narratives react to the player's actions. The chapter explores the second research question of 'How are the narrative structures in the *Fallout* franchise alterable?' by examining the main quests of *Fallout: New Vegas* and *Fallout 4* and the side quests of each game in the franchise. This examination is paired with a general exploration of player-led experiences. These elements of the video game text are considered active; they provide affordances for player activity while also tracking and responding to the player's actions.

This chapter examines the extent to which videogame narratives can adapt to the player's actions, while maintaining the narrative direction established by the passive elements of the text. This flexible yet predefined text is vital to the narrative of the *Fallout* franchises and the construction of the game world. Tim Cain in Appendix 8.1 stresses the importance of these active elements, stating that he wants 'the player's choices to have consequences... if you start stealing stuff I want there to be someone who calls you out on it, someone who notices. If you wear a certain armour I want that to sometimes matter.' Through an examination of active narratives within this franchise, the narrative construction of the *Fallout* series can be understood.

In *Fallout*, active narratives are situations where the player can act within a narrative frame of the text and have the text react to it. Where this occurs within videogames depends on the manner in which the game is designed. For example, in *Mario* games the puzzles can be solved by running and jumping; in a shooter most problems can be shot at to be resolved. In the same manner, the narrative design of the *Fallout* games dictates how their narrative crises can be resolved. For my argument active narrative is tied to the text's recognition of the player's actions, which in turn causes a reaction.³⁴ Marie-Laure Ryan demarcates the role of active narratives in her definition of internal-ontological interactivity (2015, pp. 163-164), and also discusses how the player's activities can alter the text in a taxonomy (2015, pp. 176-185). Some of the reactivity of *Fallout* is revealed in the latter half of the videogame, as seen in the consequences for saving or harvesting Little Sisters in *Bioshock*, and some of the reactivity occurs immediately in the nuance presented by the quest choices, as seen in *The Walking Dead: Season 1*. These immediate and overall reactions create active narratives as they respond to the player's actions. This active narrative is prominent in the secondary quests of the *Fallout* franchise, but further aspects of player reputation, apparel use, and dialogue

³⁴ This is a form of interaction, but as discussed by Brendan Keogh (2015, p. 26) interactivity does not provide a complete picture of how a text reacts, or how players act in meaningful ways. Keogh presents a 'from below' argument to situate the player and videogame together. Similarly the active narrative is a combination of what the text allows through affordance, and how players can make use of that affordance.

options can affect how the narrative reacts to the player. To understand the effects of these myriad narrative reactions, this chapter examines various active narratives throughout the *Fallout* franchise.

In exploring active narrative, this chapter situates activeness within wider scholarship to establish how the concept is applicable to the *Fallout* franchise and other similarly constructed videogames. The discussion moves on to examine the different levels of activeness in the catalytic aspects of the *Fallout* franchise's narratives, as seen in the main quests, side quests and player-led experiences. To make the activeness of each videogame visible a case study of the side quests in the *Fallout* series is undertaken. After this analysis, the chapter examines the main quests of *Fallout 4* and *Fallout: New Vegas* to see how they utilise active narratives. The main and side quests of *Fallout 4* and *Fallout: New Vegas* showcase how passive and active narratives work in conjunction to create mutable narratives. These case studies identify the growing complexity of the narrative within the later *Fallout* videogames, and also investigate the impact that the player's actions can have on the narrative developments of these videogames. Active narratives, shown as catalyst units within these videogames, are the primary method by which narratives provide reactions to the player actions.

3.1 Activeness in Wider Scholarship

Activeness commonly referred to as feedback is the cycle of action and reaction between the player and the videogame. To understand how the idea of feedback illuminates the text and player relationship, this chapter adopts James Gibson's notion of affordances from *The Ecological Approach to Visual Perception* and its further application to videogames by Dan Pinchbeck's works "Counting Barrels in Quake 4" (2007), and "An Affordance Based Model" (2009). Affordances within the narrative structure facilitate a range of narrative possibilities that the player can enact. Hans-Joachim Backe's "Narrative Rules?" (2012) and Marie-Laure Ryan's *Narrative as Virtual Reality 2* (2015) further support this line of reasoning, both reiterating how narrative changes can occur through player action. The following section builds on this theoretical foundation to further explore how videogames facilitate and respond to player activity. Prior to this exploration, this chapter will briefly reiterate the foundation of these active narratives through reference to narrative structures and their cardinal functions.

The previous chapter on passive narratives identified cardinal functions as fixed narrative elements that form the structure of the text. These structures also facilitate catalysts: smaller moments of narrative. A narrative structure allows for moments of player action; as outlined in Sean Hammond, Helen Pain and Tim Smith's "Player Agency in Interactive Narrative" the player's role is considered 'not exclusively a spectator, nor an actor nor an author, but ... [a combination of] these three traditional roles' (2007, p. 388). According to Hammond and colleagues, players act as spectators in

following the passive narrative of videogames, and author their performance in the active narratives of videogames. Stating that players are solely passive or active does not provide an appropriate understanding of the literacy of videogame players in how they read a videogame text.³⁵ Similarly, videogames cannot be understood as solely active or passive, but a combination of the two.

Dan Pinchbeck's approach to affordance theory is useful to the discussion of active narratives as it acknowledges that the text provides the means through which action occurs to the player. As Pinchbeck concludes in an "Affordance Based Model for Gameplay":

Affordances are an extremely powerful tool for understanding gameplay and what is more, it appears possible to formally taxonomise both the range of affordances normally present in gameplay and the object types these affordances are embedded within... [the] structural range can be reduced to a simple set. What creates the diverse experiential flavour of gameplay is the design and application mediating variables to this set. (2009, p. 8)

Much as Espen Aarseth advances the notion of *hodos* within ergodic literature (1997, p. 1), Pinchbeck argues that videogames house the abilities of the player and of the text, enabling both player and text to interact with the "set" of affordances in creative ways to create new experiences. As Pinchbeck mainly explores first-person shooter game mechanics in his work, there is more to discuss about the passive and active relationship in videogames that have more flexible and reactive narratives, such as the *Fallout* series. Pinchbeck, alongside Aarseth, provides a conceptual entry point to consider how the game text provides active narrative.

Scholars including Pinchbeck, Aarseth and Galloway all argue that narratives allow for action to take place, but do not explore how these actions affect the overall narrative structure. The thesis uses Marie-Laure Ryan's *Narrative as Virtual Reality 2* and Hans-Joachim Backe's "Narrative Rules?" to guide this discussion. Both Ryan's and Backe's work reflects on how videogames can be active and provides case studies of this activeness.

In *Narrative as Virtual Reality 2*, Ryan provides a 'foundation of interactive theory' (2015, p. 11) which explores the ways in which audience action can affect a text, from its structure to its internal plot. Ryan defines a scale of interactivity that explores the difference between discourse – the periphery text or dialogue – and the story, which can be considered the narrative structure (2015,

³⁵ My argument presumes a 'literacy' for the players of the *Fallout* franchise, which is facilitated by the paratext of these videogames, the in-game tutorials, and the player's prior gaming experience. For further information about how videogames can be read, see Brendan Keogh's *A Play of Bodies* (2015), Kurt Squire's "Video-Game Literacy" (2008), or Daniel Dunne's "The Scholar's Ludo-Narrative Game and Multimodal Graphic Novel" (2016).

pp. 175-176). The *Fallout* franchise employs many of these interactive levels. As such, any one *Fallout* game can be considered as a combination of the following forms of interactivity:

Interactivity Type	Description	Application to Fallout series
Periphery interactivity	A 'story [that] is framed by an interactive interface, but the user's activity affects neither the story nor the order of the discourse' (Ryan, 2015, p. 176)	This is seen in the <i>Fallout</i> franchise through the use of in-game texts on computer consoles or books, or in <i>Fallout 3</i> 's main quest. Specifically, this can be seen in the DLC for <i>Fallout: New Vegas</i> , <i>Honest Hearts</i> in the Journal series of Randall Clark. ³⁶
Interactivity affecting narrative discourse	Where 'the materials that constitute the story are fully predetermined, but here the order in which the story is told is highly variable' (Ryan, 2015, p. 178).	This is seen in <i>Fallout 1</i> through the presentation of two end goals, defeating the Master and supermutants. The player can complete these objectives in any order. See Section 2.7, specifically Figure 22 and 23, for an example of this interactivity.
Interactivity creating variations in the game world	Where 'the user plays the role of a member of the story world, and the system grants them some freedom of action, but the purpose of the user's agency is to progress along a fixed storyline' (Ryan, 2015, p. 180).	This is the primary form of active narrative seen in the <i>Fallout</i> franchise's side quests, and some aspects of the main quests allow for some freedom of action. See Section 3.4 for further explanation of this interactivity.
Interactivity leading to real-time story generation	Where 'stories are not predetermined but generated on the fly out of data that comes in part from the system and in part from the user' (Ryan, 2015, p. 181).	This type of interactivity is seen in the <i>Fallout</i> franchise in the free play of players in the creation of their own stories. See online discussion around events that have occurred in the <i>Fallout</i> Series, on Reddit. ³⁷

Figure 28: Application of Ryan's interactivity to the *Fallout* franchise. Source: Self.

³⁶See https://fallout.gamepedia.com/Randall_Clark%27s_journal for the story segments found in each terminal. In *Fallout: New Vegas* players needed to find each of the terminals and reconstruct this story.

³⁷ Specifically, https://www.reddit.com/r/Fallout/comments/6pqksy/fallout_new_vegas_stories/.

Ryan's definitions of interactivity are useful in understanding what sort of activeness can occur within a videogame. Ryan's interactivity definitions further indicate that activeness in videogames is not limited to one level of interactivity, but rather incorporates a variety of levels to support its discourse and story.

Backe in his article "Narrative Rules?" indicates that videogame narratives can be understood through a combination of narrative structures taken from Roland Barthes, Gerard Genette and Seymour Chatman, and game theory provided from Roger Callois in regard to *ludus* and *paidia* (Backe, 2012, pp. 244-245). Backe uses the case study of *S.T.A.L.K.E.R.: Shadow of Chernobyl* to explore the difference in activities that the player can perform while progressing through the videogame's macrostructure (p. 253), microstructures (p. 252) and substructures (p. 252), which parallel the distinctions drawn between main quests, side quests, and player activity. In exploring the *S.T.A.L.K.E.R.* videogame Backe defines the macrostructure as a linear sequence of events much like cardinal functions, microstructures as the quests, and the substructures as general player actions that have some impact on the ending of the videogame. Backe's analysis demonstrates that the active relationship between the player and the text can be complex and extensive.

The range of work from Ryan and Backe reveals that the relationship between videogame narratives and player is not easily systematised. Although such systematisation of interaction is possible, it must account for the nuances in the way that interactions occur with narrative. Backe states in "Narrative Rules?" that his work does not explore the intricate details of the game's narrative: 'The conceptualisation of narrative as a component of game structure outlined here is only a simple framework that leaves many questions untouched' (2012, p. 258). By examining the *Fallout* franchise, some of these intricate details of narrative can be uncovered in one videogame franchise.³⁸

It should be noted that even in this analysis of the *Fallout* series, the later videogames do not repeat the techniques of interaction that occur in the earlier videogames, even though the techniques are often similar. For example, in *Fallout 1* the possibility of failure if the player spends too long searching for the Waterchip is not repeated in later videogames. The Waterchip time limit is a unique response from *Fallout 1* pertaining to the time, and is a narrative consequence which is not easily categorised. Similarly, each of the *Fallout* videogames is designed to have its own unique narrative activeness. The analysis of side quests and main quests in this chapter provides a wide analysis of the series' active narratives, but does not encompass every single narrative response that

³⁸ Further examination of a typology of the activeness in videogames, can be seen in Aarseth, Smedstad, and Sunnanå's "A Multi-Dimensional Typology of Games" (2003).

each game provides. For such responses to be accurately gauged, an individual focus, much like what Backe suggests, is required.

This chapter examines the activeness of the narrative through the ways in which the player is afforded action within the structure of the videogame text. As the cardinal functions of the videogame are fixed by necessity in order to enable the set progression of a narrative, it is the catalysts in their 'in-between' moments that have the scope for interactivity, which allows the player to participate in shaping the overall structure of the narrative.

3.2 Catalysts as Active Narratives: Main Quests, Side Quests, and Player-led Experiences
Catalysts, for Roland Barthes, are the pauses between the cardinal functions connecting up the main parts of narrative, through non-critical events such as travelling, eating or sleeping for the characters depicted. Barthes considers that: 'Their [catalyst] functionality is attenuated, unilateral, parasitic' by comparison to cardinal functions (1978, p. 94). In a similar way, videogame narratives offer catalysts as non-critical events in the scope of movement, random encounters, side quests, or any activity the player can do that does not initiate or resolve the main quest.

While Barthes limits consequence to cardinal functions, in videogames catalysts can be seen to have consequences as well – not to the same degree as cardinal functions, but consequences for the player nonetheless.³⁹ In videogames, players can take actions within these catalyst sections that can alter an aspect of the narrative, which later has consequences for them. This can be seen in the examples in section 1.9 "Active Narrative Reactions": *Bioshock's* choice to harvest or rescue the Little Sisters, the choice in *The Walking Dead: Season 1* of who to save out of Duck or Shawn, and in this chapter through the conclusion of side quests within the *Fallout* series. Although the cardinal function of these videogames is not the choice of the player but rather the resolution of these scenes, these catalysts nevertheless have a small impact on how these games proceed. Catalysts have more consistent impact on the game world, occurring more often yet rarely altering the game to a major degree. While cardinal functions are integral for the successful progression of the overall main plot, catalysts are important for the player's experience of the game world, aiding the player in their progress through the videogame. Catalysts are therefore important but not critical to the

³⁹ Much of this identification of cardinal functions and narrative of Barthes is taken from "Introduction to the Structural Analysis of Narrative" (1978, originally published in 1966) rather than Barthes' later work *S/Z* (1974, originally published in 1970). In *S/Z* Barthes provides a much more open approach to narrative and the idea of co-creation through the notion of plurality (1974, pp. 5-6). While this approach provides an opening for audience participation and action in the text, it is incompatible with having a structure: 'the plural text there cannot be a narrative structure' (1974, p. 6). Discussion of how *S/Z* influences these discussions of narrative can be found in Marie-Laure Ryan's *Narrative as Virtual Reality 2* (2015, pp. 189-193).

overall narrative of each *Fallout* videogame as they provide the “flavour” of the game through different possibilities of progression.

A distinction can be drawn between the types of catalysts in the narrative structure of the videogame, which parallels Ryan’s taxonomy of interactivity. Catalysts are part of main quests because of the manner in which the player can complete them; they appear in the side quests, where players can make further choices in how to proceed or to fail these side quests; and they are also in sections of player action where the player-character operates within the game world, but has no effect on the narrative structure (and in this regard, the narrative does not respond to the player and so is not active).

Player action can service the narrative of the videogame slightly, when the player effectively acts out what the videogame expects or wishes their character to do.⁴⁰ In *Bioshock* players are encouraged to seek out Little Sisters for a reward of ‘ADAM’, an in-game currency. *Bioshock* initially forces the player to make a choice when introducing the Little Sister mechanics, but does not force the player to make a choice thereafter. In this case, the player-led experience services the ending of *Bioshock*, as the initial choice provides the game with an action to which to respond (determining an ending for the player), while the later actions of the player to harvest or rescue the Little Sisters can either confirm this ending, or induce the ending to be changed once again. In this example, player action can be seen to support the narrative structure of these videogames, as the player’s actions give flavour to the side quest and main quest catalysts of various videogames.

However, while for the most part this player activity is beneficial to the narrative of the videogame, there is a possibility that the player’s action can contest the events of the main quest or side quests. Clint Hocking identifies this contest in his paper “Ludonarrative Dissonance in *Bioshock*” (2009). The term ‘ludonarrative dissonance’ describes the disconnect that can occur when the actions of the videogame player do not match the overall narrative of the story (Hocking, 2009, p. 256). For example, a player praised as a moral individual in the main quest of a videogame may have gone around stealing items from everyone within the scope of their play. While this ‘ludonarrative dissonance’ is certainly a concern for the development of narratives in videogames, many games can consider it by either noting and responding properly to such ‘immoral acts’ – for example, through the reputation system in the *Fallout* series – or by limiting the player’s range of action. Although I do not focus on such disruptions, they are nevertheless important to note for future studies of player activity.

⁴⁰ This can be seen in a case study of *Call of Juarez Gunslinger*, in which the action of the player in gunfighting contributes to the overall narrative. (Dunne, 2016a, pp. 192-198)

Any videogame delimits a range of freedom the player-character is able to enjoy within the text (Figure 29). However, when the player needs to progress the narrative the player-character usually needs to perform a predetermined role of some kind within the game world (Laurel, 2013, pp. 137-139; Genette, 1983, pp. 235-240). As the player performs more of the actions or roles that the videogame expects – such as completing the main storyline – the player loses some of their ability to act freely. Although the game still allows the player some ability to continue or to ignore the task laid out for them, in most cases the player will need to perform particular actions in order to continue the main quest. In this manner, the whole experience of a videogame narrative is designed to direct the player along narrative paths for main quests and some side quests. The player can alter the paths somewhat through their actions, but they cannot break out of these narrative experiences without ceasing to progress the videogame.

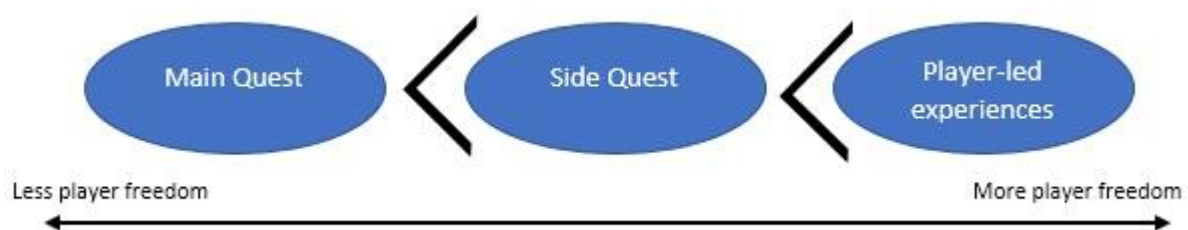


Figure 29: Diagram of player freedom in relation to the main quests, side quests and player-led experiences. For the impact on the narrative structure the range is inverted. Source: Self

In main quests, the player's freedom is reduced. The cardinal functions that establish the direction of the main quest limit the range of actions a player can perform. However, when choices are provided that have some effect on the narrative structure, or on how each cardinal function is approached, these choices are potent in determining the overall structure of the text. This corresponds to Backe's 'macrostructures', or Ryan's 'Interactivity creating variations in a partly predefined story', in that the player's choices lead specifically to the cardinal function of the videogame text. As these choices relate to the main quest, the way they affect the player-character's playthrough of the videogame is more visible than the effect of choices presented in side quests. While this is still a choice for the player, the way it operates with the cardinal function is necessarily "set" so as not to open up too much narrative possibility. Rarely will a player choice in a videogame – let alone the *Fallout* franchise – prevent a cardinal function from occurring.

In side quests the range of action available to the player and text is much broader because they are not essential to the main narrative. Players can sometimes choose to resolve these quests in multiple ways and can also fail the side quest without halting their progress in the larger narrative. This corresponds to Backe's 'microstructures' due to the smaller range of effect these catalysts have within the scope of the videogame. For Ryan, side quests can relate again to 'interactivity creating

variations in a partly predefined story'; however, the variations in these predetermined stories are more varied, as they do not rely on the cardinal functions. Therefore, side quests reveal a variety of consequences to the player's actions that have some impact on the game world and the player-character. Side quests offer the player-characters more ways of affecting and eliciting reactions from the text.

The range of action in player-led experiences is more extensive, as players effectively choose what they want to do within the limits of the videogame – in much the same way as Caillois explains *paidia* – yet these actions usually have little effect on the narrative structures of the text. In this the range of narratives created corresponds to Backe's 'substructures', Ryan's 'meta-interactivity' and 'procedural interactivity' refer to the degree of action from the player; reaction from the narrative is not based on other quests that occur, but rather serves as a smaller unit of these quests. Player-led experiences can include the collection of various items within the videogame, or the player-character choosing to only use a certain type of weapon. These player-led experiences act as *paidia* and have no impact on the *ludus* of the narrative structures, but nevertheless inform the player's experience of them.

All three levels of main quest, side quest, and player-led experiences are present within the *Fallout* franchise. These levels work together to ensure that there is both a narrative structure to the videogame and sections of gameplay where the player can do as they wish (Figure 29). The side quests and main quest of the *Fallout* franchise work in collaboration of the active and passive narrative structures.

It should be noted that these divisions of catalysts do not always provide consistent guidelines as to the level of activeness from the player and text. For example, in *Fallout 1* the role of armour changes in a side quest in which the player-character is asked to rescue Tandi. Armour tends to have an impact on the player's success in combat encounters, but has little effect on the narrative. However, if the narrative takes note of the armour in the side quest to rescue Tandi, then wearing the armour takes on a role in its progression. Tim Cain explains how this inclusion of armour as an element affecting quests reflects the design principles of *Fallout 1*:

[Player's choices having consequences] actually manifested itself in one of the ways you can rescue Tandi when she's kidnapped. If you wear a raider outfit and your luck is high enough you can grab her and walk out. There's no dialogue skills required. (Appendix 8.1)

Since the game recognises and reacts to the action, the choice of armour becomes part of the active narrative. Players may assume this to be part of their own exploration of the videogame, but it is the

textual design – the affordance of the videogame – that makes such an interaction possible.⁴¹ This example is intended to showcase that even when a videogame predefines the ways in which narratives can be active, this can vary from videogame to videogame.

3.3 Overview of Case Studies

The next section examines both the active narratives in the secondary quests of the *Fallout* franchise as well as the main quests of *Fallout: New Vegas* and *Fallout 4*. This focus is for two reasons. Firstly, the secondary quests of the *Fallout* franchise generally allow for greater player activity than the main quests of the first, second and third instalments. Secondly, the main quests of *Fallout: New Vegas* and *Fallout 4* demonstrate notable interconnections between main quests and secondary quests in their narrative structures. Within this discussion, the section also explores the importance of side quests to main quests, and the subsequent relation of catalysts to cardinal functions.

Further, the section analyses the epilogue system of the *Fallout* videogames to explore the activeness of texts, since each game's epilogue system provides a strong indicator of the events the game text "notifies" and allows to impact the game world.

3.3.1 Side Quests as Textual Catalysts

Each of the *Fallout* videogames, from *Fallout 1* to *Fallout 4*, has side quests that allow for players to gain a variety of experience points, and items that can aid them with the completion of the cardinal function main quests. These side quests are supplementary to the main quest; they provide a distinct narrative presence throughout the *Fallout* franchise that allows shorter narratives to be told.

While side quests can be understood as catalysts in relation to the main quest line, their narrative structures contain cardinal functions of their own because the quest can be understood as a set series of tasks, such as giving instruction for the player to do something, having the player achieve that task, and giving the player a reward. Side quests are structured to provide a crisis for the player to solve, and a reward for the player's involvement (Hammond et al., 2007, p. 3). The results of these narratives can affect other events in the game, depending on how the player encounters, completes and resolves the side quest, and what the text records.

This level of impact can vary from side quest to side quest in each game. The range of these effects depends on the side quest, as choosing to destroy a city or community has a greater effect on what the player can do in the game world than helping a character with their broken equipment. Often the consequences of the player's actions are not known until much later in the videogame; although

⁴¹ Kurt Squire's "Video-Game Literacy" (2008) and Craig Lindley's "Gaming Gestalts" (2002) provide some framework for explaining the relationship between player action and text reaction. Their analyses provide a broad overview of games, instead of a detailed examination how these interactions occur.

the player sees an immediate resolution of the events, the full effect is difficult to determine. For example, in *Fallout 1*'s side quest where Tandi is kidnapped by Raiders, the player can choose to save Tandi several ways, or leave her with the Raiders, so that the quest is resolved. The player initially knows about the kidnapping and quickly realises that their rescue of Tandi is beneficial to the game world; however, at this point in the game, the later consequence of the player-character's actions can at best only be speculated about. However, the epilogue of the videogame reveals the consequences of saving Tandi: that through her survival, the New California Republic thrives in the Wasteland. Due to these consequences, the range of effects in these *Fallout* games could only be explored through multiple playthroughs (Mukherjee, 2015, p. 137), by cheating (Consalvo, 2009, pp. 99-101), or through discussions with other players (Consalvo, 2009, p. 24). Tim Cain mentions this was an intended function of the videogame:

At work people they would replay – make a totally different character, and they'd replay – and when they saw there were other things that were suddenly possible to do, or people were talking to them differently, it got them very excited. I remember people would tell us afterwards, a few months after it shipped, how it felt like they were playing a tabletop game and the DM [dungeon master] was noticing what they were doing in having the NPCs [non-player characters] react, and that's exactly what we wanted. (Appendix 8.1)

The range of player actions and textual reactions in the *Fallout* franchise becomes part of the game's exploration, as they discover not only the landscape of the virtual world, but also how the virtual world reacts. In side quests, the videogame's reactions can come immediately, during or at the resolution of a side quest, as well as later in the videogame. Rewards are the immediate reaction to the quest's end, resulting in further progress in the side quest, items, or increased reputation with a group. Later consequences operate in a more complex manner through the game world, and through the epilogue.

3.3.2 Game World Effect and Epilogue

Later consequences are the prime indicator that the *Fallout* series can be seen as reactive, as not only does the videogame give a sense of permanence to the actions of the player-character; it also, more importantly, "judges" the player by assigning their actions consequences that go well beyond the immediate reward. As the event structure of the *Fallout* videogames is designed to affect later events and locations in the game world, the videogames become active narratives. More particularly, these events in *Fallout 1* used global variables that, depending on the player's action, would influence quests later in the videogame – a reactivity of sorts. Tim Cain explains how this particular design decision for *Fallout 1* came about:

I would go into quest design meetings, and I'd go in there with my design hat on, but I'd also say things like, you know, 'I can give you guys the global variables to read between quests so that any quest can access its own variable – so you can have side quest A influence side quest B without any extra programming help.' And I'd explain to them how they could do it. You know, it'd be like, 'Here's a variable that's set to zero. If you set it to one it meant that you'd saved Tandi; if it was set to two it meant you killed her; if it was set to three you rescued her by paying money.' So basically, I showed them how to set the state and then they'd repeat those states back later and have other quests get influenced by them.

(Appendix 8.1)

The fact that these reactive elements were integrated from a pre-production level has meant that the *Fallout* videogames were designed to have each event or quest affect the game world, and not just the player's reward. These event triggers (Bateman, 2007, p. 94; Ryan, 2015, pp. 17-18) would have an impact on other side quests, main quests, areas, characters, epilogue, the player's abilities and skills in later portions of the game. Depending on the player-character's actions, the player can complete further quests, discover new areas, or take a completely different path and become a villain in their playthrough. The fact that such reactions occur beyond an immediate reward makes the text active in terms of how it reacts to the player.

Beyond responses provided in-game, the *Fallout* series also includes a variety of epilogue endings that alter depending on the players' actions, allowing for another reaction from the text notifying the player of their consequences.⁴² Introduced after the player has completed the main quest line, the epilogue system determines the fate of various areas, the player-character, and characters that the player has met over their playthrough of the videogame. Depending on the player's actions, different slides will appear and showcase the aftereffects of the player-character's presence. As such the epilogue system is a device which describes the impact of the player's actions and is the last piece of feedback provided by the game text to the player. Although it provides consequences for the videogame, it was never intended to do so for *Fallout 1*. As Tim Cain recounts:

I'd like to say that we thought about these [epilogue endings] all carefully but it really was that we were nearly at the end of the game; the main story quest and the side quests that had a lot of solutions that ended up getting slides. That may have made them look too important, but we weren't thinking of them that way. We were just saying, 'Hey, we gave

⁴² See Souvik Mukherjee's *Video Games and Storytelling* discussion of player choice in the endings of *Blade Runner* (2015, p. 154) and *S.T.A.L.K.E.R.* (2015, p. 170) as a combination of the player's choice and the official endings provided by the game text. In these videogames, the game text notes the player's actions and causes multiple endings.

you a lot of ways of doing it and tracked it, let's show the player how clever we were in how we tracked what they did.' (Appendix 8.1)

This use of the epilogue system aided in the players' engagement, because when the text notices the player's actions, this signals that they are important. As Tim Cain discovered during testing:

I mean, when we'd put it altogether at the end and we found out that there were people in QA [quality assurance] who were coming in on the weekend to play the game because they wanted to see if they could get a different ending. And some of them were coming in and trying to play as a better person, as better characters, because they found out the game was tracking all the horrific stuff they were doing, and then throwing it back to them at the end. (Appendix 8.1)

Similarly, an analysis of *Fallout 1* to *Fallout 4*'s epilogues can identify the "important" narrative aspects of the text. The variety of endings showcased in the epilogue system gives an indication of how these videogames retain and present feedback to the player.⁴³ This epilogue system does not directly indicate how narrative structures can be altered; however, it does give an indication of what the videogame considers to have changed in its narrative.

Fallout 4 presents its epilogue based on one choice: whether or not to destroy the Institute. Although there are four factions to choose from to achieve this, the reaction provided by the text showcases that the narrative of the videogame only recognises the Institute's destruction or survival.

Fallout 3 presents its epilogue based on some main choices – whether to release a virus; whether to destroy Megaton – and the karma reputation of the player. The player can influence this karma by their actions in general play (being altruistic raises it, while being malevolent lowers it), as well as by completing certain quests. The epilogue then reacts to the player based on the karma and some main choices the player makes.

Fallout 1 and *Fallout 2* present their epilogues based on a variety of choices made both in the main quest and in the side quests of these videogames. *Fallout 2* incorporates a wider range of side quests to determine the epilogue consequences of the player's actions compared to *Fallout 1*, which is largely restricted by the choice the player makes within certain quests.

⁴³ Souvik Mukherjee in *Video Games and Storytelling* offers an excellent overview of the importance of videogame endings (2015, pp. 125-134); however, this analysis foregrounds the notion of multiplicity (sequels, mods and spinoffs) and gameplay mechanics (such as death) as an extension of the authored endings.

Fallout: New Vegas has the most comprehensive epilogue that considers a range of interconnected choices to provide a reaction to the player's actions. The player is shown 29 slides out of a possible 187, which reiterates the text's nuanced reactions to what the player has done. This epilogue system reflects the choices of the player-character throughout their playthrough of *Fallout: New Vegas*. This includes which major faction took over Hoover Dam, the karma of the player-character in relation to that faction, what occurs at different locations, what happens to the player-character's companions, and the results of actions taken in side quests.

By incorporating global variables that alter the game world and the epilogue system, *Fallout* videogames provide consequences for the player's actions, which demonstrates that the narrative is active. The combination of immediate responses when side quests are completed, and the later consequences of the player's actions on the game world, demonstrates that the text of the *Fallout* franchise is reactive to the player.

3.4 Side Quests

This section examines the side quests both in the Interplay Entertainment videogames *Fallout 1* and *Fallout 2*, and the Bethesda Softworks-produced videogames *Fallout 3*, *Fallout: New Vegas* and *Fallout 4*. These side quests can be primarily considered as catalysts in the scheme of the overall videogame, especially in conjunction with main quests. Roland Barthes provides a definition of the relationships of catalysts to cardinal functions that can be used as a definition of combined side quests: 'A sequence is a logical succession of nuclei [cardinal functions and/or catalysts] bound together by a relation of solidarity: the sequence opens when one of its terms has no solidary antecedent and closes when another of its terms has no consequent' (1978, p. 101). In defining sequences, Barthes allows that catalysts may operate with each other during trivial moments and within "epic moments". These epic moments are divisions between the cardinal functions. As such, the definition that Barthes provides suggests side quests can affect sections of the main quest, or other side quests.

However, these side quests operate differently in each videogame. The side quests within *Fallout 1* and *Fallout 3* appear to be nodal or, rather, demarcated as separate entities in comparison to the main quest. *Fallout 2* and *Fallout 4* have a somewhat nodal setup that separates the side quests from the main quest; but they still enable side quests to affect each other, and the game world. *Fallout: New Vegas* stands out as an example of narrative complexity, as each side quest serves to influence the main quest in terms of how different communities in the game world see the player-character, and how the main quest is resolved. Further, *Fallout: New Vegas* weaves its narratives

together to present a complex presentation of passive narratives that support the telling of active narratives, which in turn changes some aspects of the overall main quest.

Nodal side quests are distinct side quest units that operate independently of each other. Sebastian Domsch provides a definition: 'a situation is nodal if it allows for more than one continuation, which means that the two continuations that are both *possible* from one point have to be *different* from each other' (2013, p. 1). Domsch's definition of nodal situations is useful because it specifies that there can be multiple narrative situations, though their relationship to each other is not always a similar sort of difference. This concept of nodal quests or nodes operates much like Marie-Laure Ryan's descriptions of interactive structures (2015, p. 166), which use the term 'node' to demarcates a narrative event.⁴⁴ Applying these definitions to Barthes' sequences reveals that these nodes are operating in small 'minimo' sequences that can 'function as a simple term in another, more extensive sequence' (1978, p. 102). Since nodal side quests do not rely on specific cardinal functions or catalysts, their existence is self-contained and they can be placed anywhere in the *Fallout* videogames.

Combined side quests are quests that combine the results of each side quest, making them affect later quests within the videogame. Following Barthes, these sequences relate to each other strongly and form a 'maximo' sequence (1978, p. 102). These sections of a videogame have longer sequences than nodal side quests, and so are less likely to close, but rather continue throughout the game. The *Fallout* franchise is designed to include such ongoing reactions throughout all of the actions that the player does, however the maximo combination identified here refers to each side and main quest's relationship to the next. There is no distinct term for such interactive narrative design, due to the lack of prominent examples within videogames; however, instances can be seen in *Planescape: Torment*, *The Witcher 3: The Wild Hunt*, and of course in *Fallout: New Vegas*. In each of these cases the side quests have in turn affected other side quests and the development of the main quest, acting as a 'function ... in another more extensive sequence' (Barthes, 1978, p. 102).

In this section, side quests are addressed in two categories: nodal side quests, which clearly demarcate themselves from the main quest of the videogame; and combined side quests, where the side quests combine with each other or the main quest. In this analysis, the side quests in *Fallout 1*,

⁴⁴ Marie-Laure Ryan in *Narrative as Virtual Reality 2* (2015, pp. 62-63) appears to have been inspired to use inspired by the term 'node' by Michael Heim's *Virtual Realism* (2000, pp. 90-92), in which Heim describes the relationships that can occur within a virtual world. The concept of nodes allows Heim to consider virtual worlds to be built up of individual event segments, much like Barthes' structural analysis which makes these narrative events either catalysts or cardinal functions (see section 1.5 "Narrative Structure").

Fallout 3 and *Fallout 4* are nodal in design, while *Fallout 2* and *Fallout: New Vegas* combine their side quests together.

3.4.1 Nodal Side Quests

Fallout 1 uses nodal side quests to propel the player towards the main quest and cardinal functions of the videogame. As explored in the previous chapter through a mapping of *Fallout 1* (Figure 22), the game encourages players to explore each location on the world map and complete side quests in order to get closer to finding the Waterchip. As the player-character has no idea where the Waterchip may be, the player-character is encouraged to ask and aid everybody to find some clue as to how they can complete their quest. Furthermore, owing to the player-character's meagre starting possessions, these side quests offer the player an easy way of acquiring better weapons, armour and other game items.

In *Fallout 1*, the area known as Junktown offers a variety of quests that cause different results for the town; therefore, Junktown provides a good example of catalysts as active narratives. On the player's arrival in Junktown, they encounter two different characters: Gizmo, a criminal gangster who runs Junktown's business, and Killian, the mayor and lawman of Junktown. Each character desires different results for the town. Killian wishes to get a confession from Gizmo, to imprison him, and asks the player-character to aid him in the task (Figure 31).



Figure 30: Gizmo's side quest, which leads to the death of Killian. Source: *Fallout* Wiki

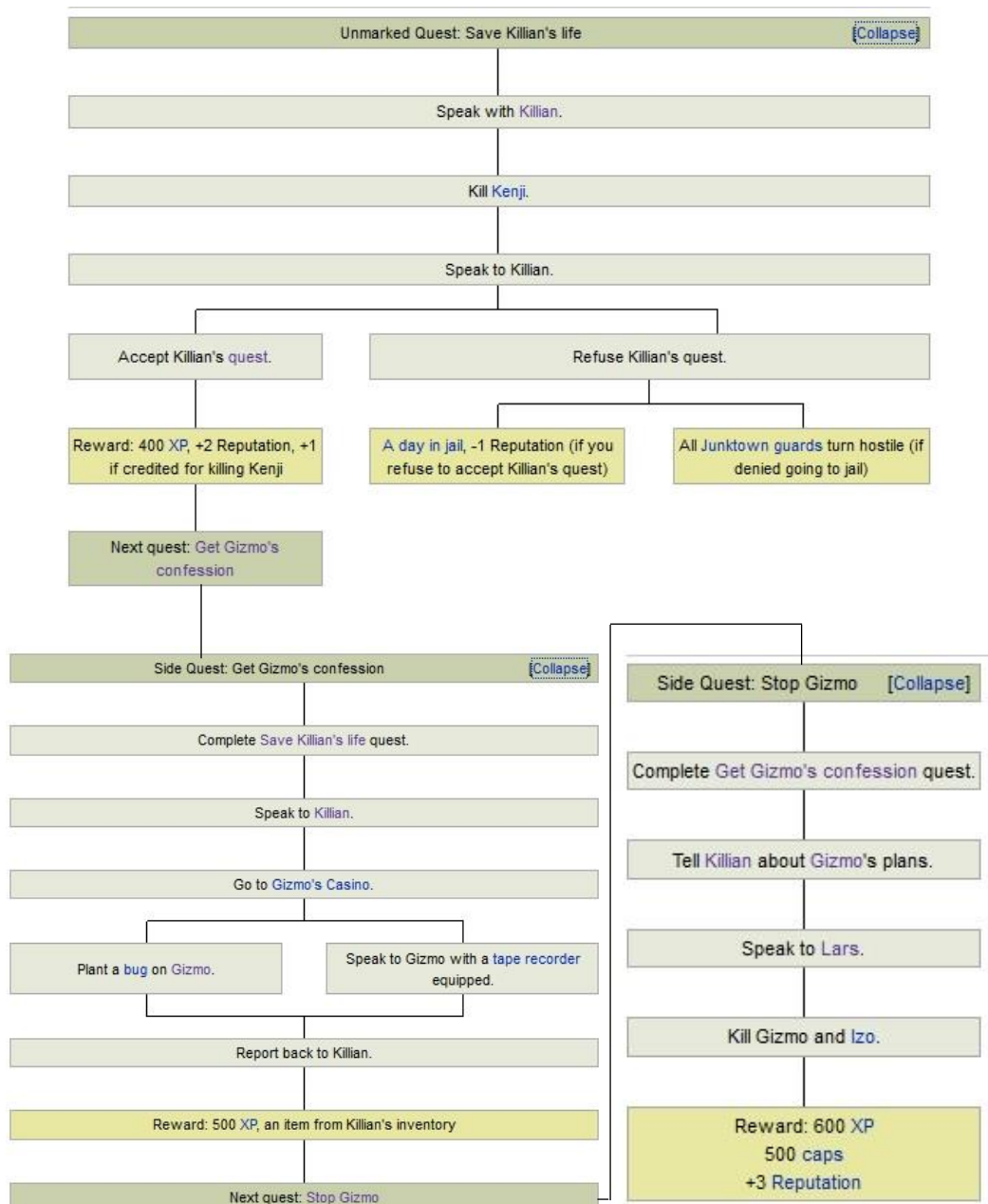


Figure 31: Killian's side quests that lead to Gizmo's death. Source: *Fallout* Wiki

Gizmo, alternatively, wishes for Killian to be killed and asks the player to complete the task (Figure 30). This is a relatively straightforward task for the player, as it just requires the player to kill Killian. These two paths determine the fate of Junktown, and relate to each other quite strongly, as the completion of one quest means that the other cannot be completed. This showcases the activeness of the text in providing a range of responses to the player's actions: a substructure inside the microstructure of *Fallout 1*'s side quests.

Further consequences for the player's actions are revealed through the epilogue of *Fallout 1* (Figure 32). Depending on whether Killian or Gizmo survives, the town will respectively thrive or stagnate slowly due to corruption. This result is revealed in a cutscene at the completion of the main game.



Figure 32: The epilogue scenes of *Fallout 1* regarding the fate of Junktown. Source: *Fallout 1*

Both endings are determined by what the player-character decides to do to these characters; and importantly for this research, they indicate the reaction of the text. Although this quest is not necessary for the completion of the main quest of *Fallout 1*, it provides a small instance where the player can experience the text's reaction to the player's action. As this sequence is a microstructure within the overall scheme of the videogame, its role could be overlooked, if not for the way the epilogue arranges the resolution of this side quest alongside the player-character defeating the Master.

The location of Junktown is consequential because of the events that occur there; this side quest has no consequences beyond that. However, Junktown corresponds to Barthes' definition of a sequence, as this side quest determines the fate of other side quests within Junktown. It can be considered a 'maximo [sequence]: enclosed on its function', (1978, p. 102), as it houses smaller sequences which Barthes refers to as 'minimo.' Applying this sequence concept to Backe's work reveals another level of structure in between the microstructure and the substructure. As a result of what occurs in Junktown, the maximo affects the minimo sequences as well as the player-led substructures in Junktown. In this regard, the side quests of *Fallout 1* are nodal as they do not have a larger world effect in-play. Only in the epilogue does the player's choice seem to influence the game world.

Fallout 3 features a side quest called 'The Power of the Atom' (Figure 33). On arrival at the town of Megaton, the player-character is directed inside the town and is immediately presented with the view of an unarmed nuclear bomb in the town square. Inquiring about the bomb will direct the player-character towards the sheriff, Lucas Simm, who wishes to disarm the bomb. However, on searching through the town further another individual approaches the player: Mister Burke, who wishes for the nuclear device to be detonated, so that Megaton can be destroyed.



Figure 33: The quest structure of 'The Power of the Atom'. Source: *Fallout* Wiki

The destruction of Megaton appears to create a drastic change in the macrostructure of the game world. The player loses the benefits of Megaton, such as quests and trading, as the town is destroyed. The player-character also gains negative karma, which means survivors of the bombing will attack the player on sight. However, this only affects the minimo sequences and substructures that occur within Megaton. This maximo side quest can be seen further if the player-character chooses not to destroy Megaton, as the game world continues as normal. Tenpenny Tower (which can replace the gameplay role of Megaton if it is destroyed) continues to function as an area where the player can continue quests. In this manner, the destruction or protection of Megaton is similar to *Fallout 1*'s side quest. The consequences of the player's actions and the sequence of events only affect the minimo side quest and substructure areas of Megaton, and have no effect on the player-character's success in the main quest. In this, the immediate response of the text (that is provided from the completion of the Megaton sequence) is drastically reactive to what the player has done, but as in *Fallout 1* this reaction appears to be limited to the completion of the sequence.

Nevertheless, 'The Power of the Atom' still results in some instances where there is a small dialogue reaction in other side quests to what the player has done. These reactions do not prevent the player from continuing to play side quests or the main quest, but instead provide a small commentary about the result. When the player-character's father is initially approached, he will comment on the fact his child has destroyed Megaton in their playthrough, but then allow the player-character to continue with the main quest. At the completion of the videogame, the player is shown an epilogue video whose content changes, depending on whether the player-character had destroyed Megaton. This later consequence of the player's action showcases some reaction from the text about what has happened within it, but does not alter the structure of the narrative to any great degree. In this manner, *Fallout 3*'s side quests are like *Fallout 1*'s in that the completion of sequences is self-

contained and largely nodal. *Fallout 3* does showcase some later reaction from the text, but this nodal quest does not affect the player-character's ability to complete other quests.

Fallout 4 continues this trend of nodal side quests, which the game presents as distinct from the main quest. Some side quests in *Fallout 4* do relate to the main quest in determining faction reputation; however, this has little bearing on how the rest of the videogame progresses, as all of the factions in *Fallout 4* will continue to work with the player until a "point of no return" is reached in their quests. *Fallout 4*'s side quests do not influence each other; instead the presentation of these side quests is much more in line with *Fallout 3*'s approach of adding depth to areas of the world. Also, more importantly, the side quests give players another excuse to explore the world. The quest 'Virgil's Cure' offers a useful case study to showcase the nodal side quest (Figure 34).

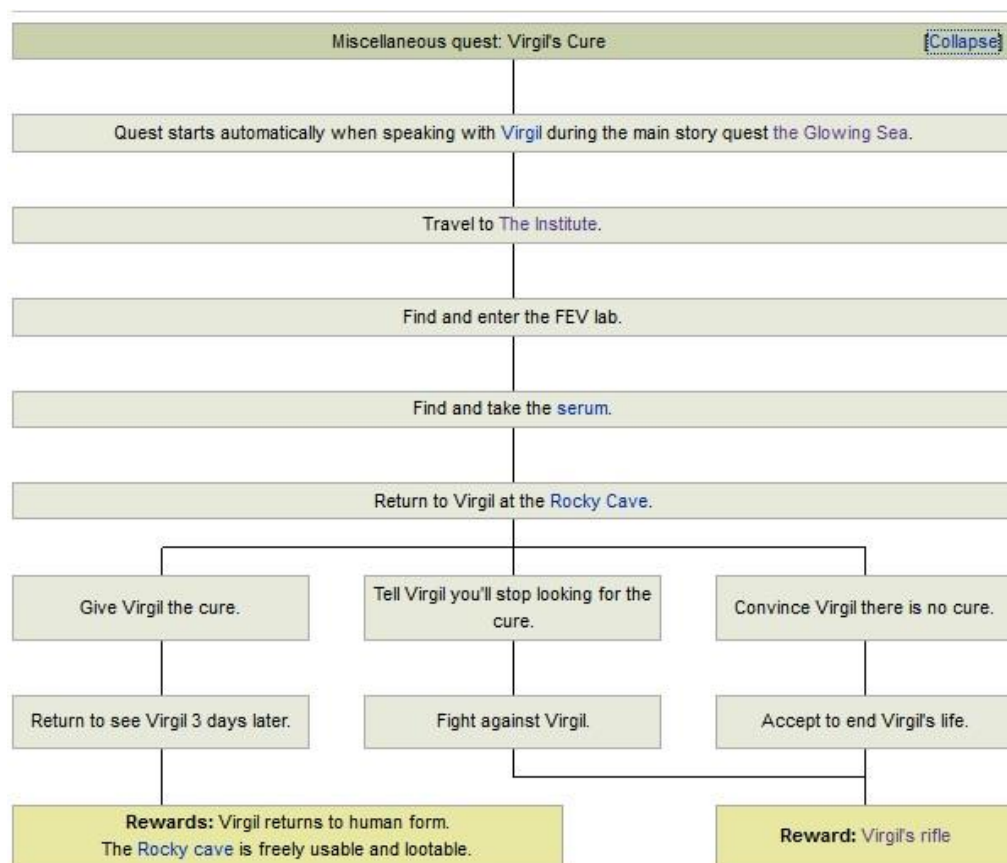


Figure 34: The quest structure for 'Virgil's Cure'. Source: *Fallout* Wiki

This quest is provided after the main quest directs the player to talk to a NPC named Virgil and provides a rationale for returning to Virgil later in the game. In this regard, the sequence of this microstructure can be considered to be conditional on the progression of the main quest, but provides no further reaction from the videogame when completed. This side quest has no bearing on the events of the main quest, nor does it influence any of the factions or alter the ending. Indeed,

owing to its lack of effect on other side quests and lack of distinctive community or area, this side quest can be considered a maximo side quest with no minimo sequences within it.

Some side quests do have an impact on the game world of *Fallout 4*, yet still do not provide a consequence to other quests. Examples of this include how confident the radio host Travis Miles sounds after completing his quest, and the degree of support that the player-character can get from factions. However, these quests do not offer a choice of how to complete them; the player instead either completes them, or does not. *Fallout 4* does not react to how the player has completed these quests, and so offers a smaller range of reactions to what the player has done in each of these sequences.

In this analysis of *Fallout 1*, *Fallout 3* and *Fallout 4*, the nodal side quests of each have been identified and their range of narrative action shown. Each nodal side quest offers a range of different results based on the character's actions and then the game reacts to that choice. The videogame may refer to this choice later in the playthrough – such as with Megaton – but the effect on other quests is minimal. Instead, the videogame reminds the player of what they did in these nodal side quests, but provides little consequence of the player's actions. When there is consequence provided, this only affects the maximo set of side quests, or spatially, the immediate area. *Fallout 2* and *Fallout: New Vegas* manage to make their side quests relate to each other and to the main quest, creating a series of active narratives that are dynamic in their combinations.

3.4.2 Combined Side Quests

Fallout 2 expands upon the nodal style of side quests provided in *Fallout 1* and provides side quests that weave through the game world with reactivity. This development in *Fallout 2* means that side quests often influence each other, or lead to special events later in the videogame. Within this scope many quests from one town will lead to quests in other towns and so on, leading to a number of quests that at first glance do not appear to affect much in the game world, but then lead to the player making use of their reputation to form alliances or break down trade between communities. By comparison to the nodal structures of *Fallout 1*, the side quests of *Fallout 2* lead the player further into the game world through linking side quests together in a myriad of experiences.

Figure 35 depicts the side quests in *Fallout 2* that are associated with the regions Gecko and Vault City. The player-character approaches Vault City to find out the location of other Vaults that may have the G.E.C.K., as they need access to a Vault to gain this information. To gain entrance to the Vault, the player-character must become a citizen of the city. This can be done several ways, but the path that the player-character is most explicitly encouraged to follow is to “resolve” the reactor crisis between Vault City and the nearby town of Gecko.

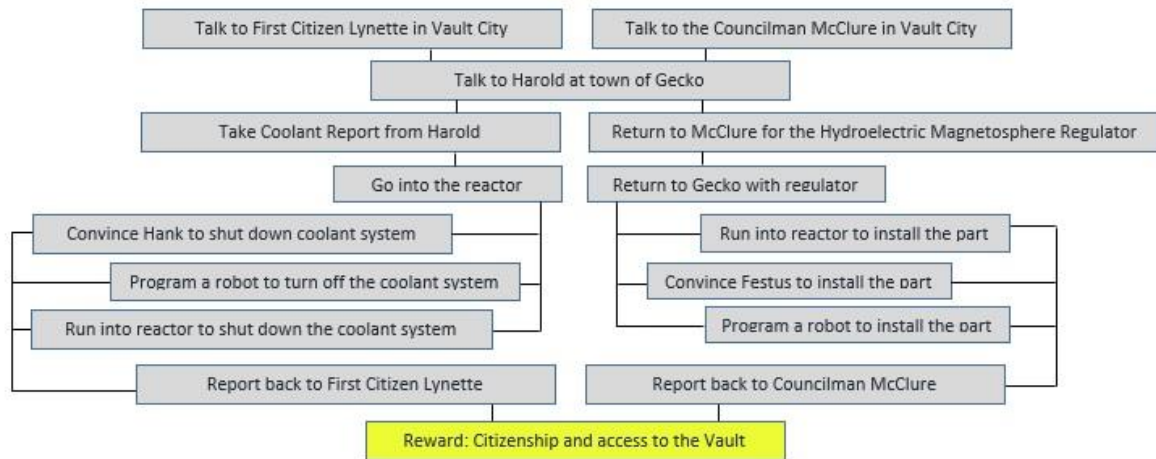


Figure 35: The Gecko side quest for Vault City. Source: Self

It is worth noting that different dialogue options with Lynette on starting and completing the quest can result in an immediate ban from Vault City, thus preventing the player from discovering where to go next beyond the next available location (Redding or Broken Hill). Furthermore, choosing to destroy the coolant system leads to the town of Gecko turning hostile to the player-character, who is then unable to complete any other quests in Gecko. These reactions showcase the range of results available to the player-character due to the dynamics between these two towns' quests. If the player saves both towns, the player can further provide an optimisation to the reactor that allows both Gecko and Vault City to become more productive and dependent on each other. The text provides an immediate reaction by giving the player rewards; however, afterwards NPCs will continue to comment on this action.

The mapping above (Figure 35) does not reflect all the possibilities for the completion of the quest, as it is possible to become a citizen of Vault City by completing a citizenship test and going into the Vault (Figure 36). Another option is to attempt to sneak into the Vault, so that the player-character does not have to go through these other tasks. These actions do not progress the quests within Vault City or Gecko, but allow the player to continue with their main quest through their own ingenuity. Therefore, the quest of resolving the crisis of Gecko for Vault city is a maximo sequence housing a number of minimo sequences that relate to each other in a myriad of ways. The further provision of the Gecko quest as one of the many ways that the player can complete this objective indicates that there are multiple maximos that provide the same result – 'getting access to the Vault' – and these maximos, again, are made up of smaller minimo sequences. These in turn can affect later quests and events, depending on what the player does, as the videogame recognises these actions and provides further sequences to the player. For example, on entering the Vault players are questioned about their presence, and so can be caught out by their actions. In this the range of reactions from the text,

as well as the number of options available to the player, provides a range of sequences within this side quest that make its completion an intricate one.

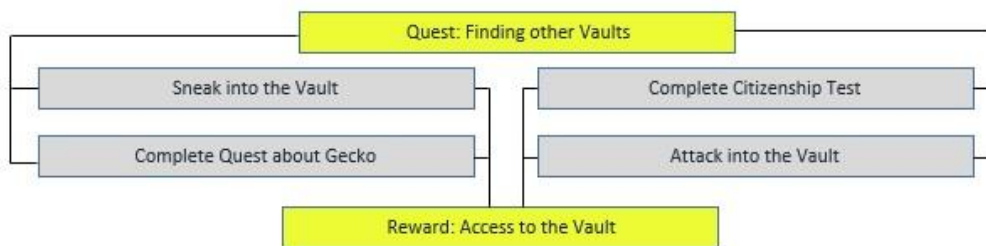


Figure 36: The overarching quest to gain access to the Vault of Vault City. Source: Self

The epilogue of *Fallout 2* reveals the fate of the two towns: both Vault City and Gecko have their own concluding slides whose content reflects the action of the player. However, owing to the way the side quests in *Fallout 2* operate, the quest to resolve Gecko is only one sequence, which can be applied as a 'function ... in another more extensive sequence' (1978, p. 102). If the player chooses to address the concerns of both Vault City and Gecko, they need to aid both communities. This reveals that the sequence of fixing the Gecko reactor enables two larger sequences to occur: the player-character is able to get into the Vault and the two towns can thrive.

This example of the Vault City and Gecko combined side quest demonstrates how side quests are linked together in *Fallout 2*, allowing the player-character's actions to have in-game consequences. In *Fallout 2* there is a greater range of consequence to the actions the player undertakes, particularly the way the player is able to complete these objectives. These side quests affect not only the player's immediate quest and the conclusions at the end of the videogame, but also the state of other side quests and character interactions.

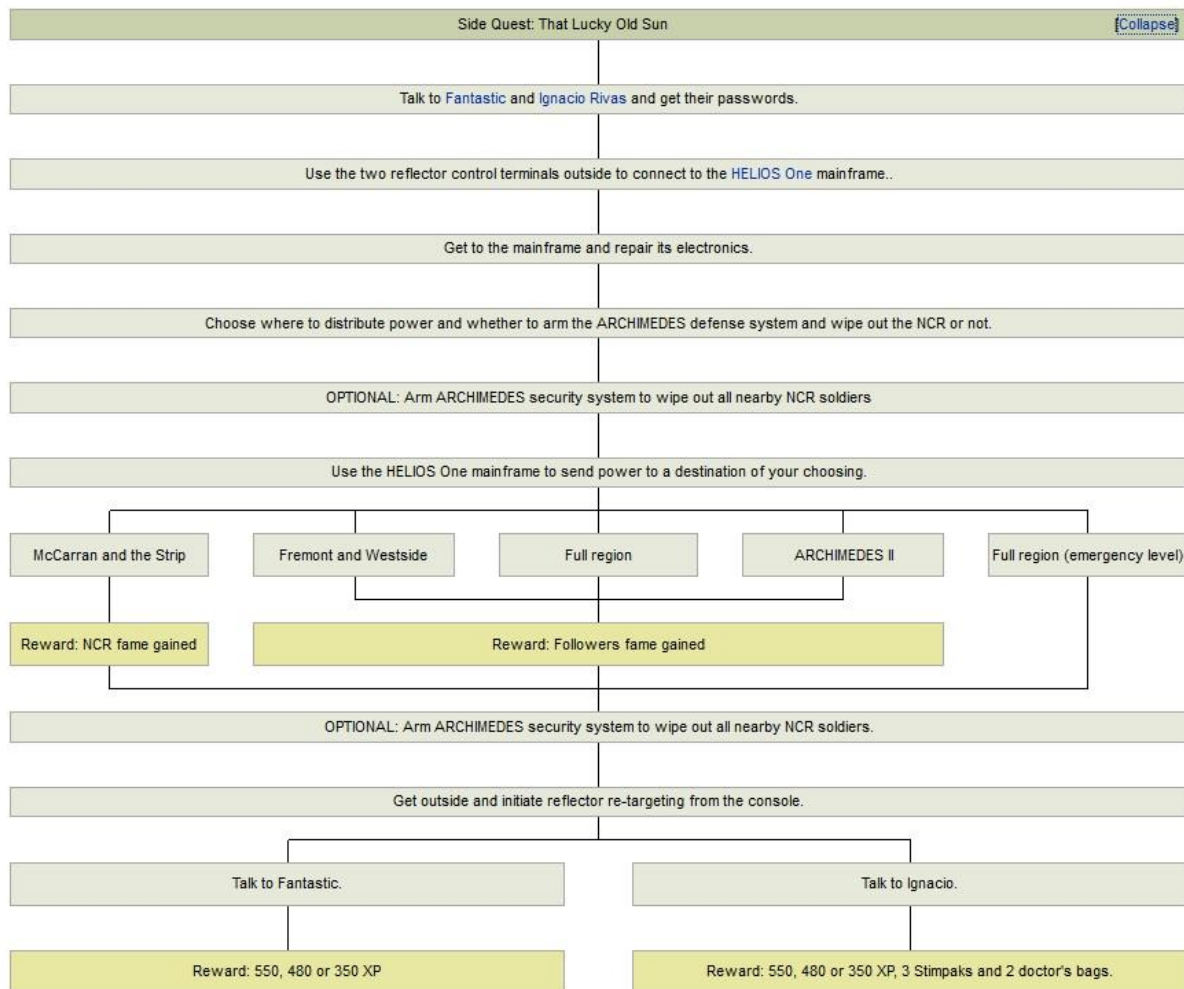


Figure 37: Quest structure of 'That Lucky Old Sun' displaying the various paths taken. Source: *Fallout* Wiki

The side quests in *Fallout: New Vegas* combine and interconnect in a similar fashion to those in *Fallout 2*. This design means that the later consequences for the player-character's actions affect a number of things in-game and in the epilogue. However, where the design of *Fallout: New Vegas* differs from *Fallout 2* is in the impact that side quests have on the main quest. The quest 'That Lucky Old Sun' provides an example of this complexity. The quest requires the player-character to choose where to direct the energy from a solar power plant (Figure 37), providing them with the opportunity to gain reputation with different in-game factions depending on their choice.

By aligning the solar panels, the player can fix the power plant and choose who benefits from the power usage. The player may choose an area to supply with power and gain standing with an associated faction, or direct the power to Archimedes II, which provides them with a tactical in-game advantage (a daily orbital strike). Selecting the former can potentially open new side quests associated with particular factions in the game. Selecting the latter may lower the player's standing with some factions, cutting off previously available side quests and potentially turning members of that faction hostile. Hence, the sequence 'That Lucky Old Sun' addresses a number of other

sequences through the actions of the player, because choosing to benefit any one faction enables that faction to react to the player's actions and in turn enables the player-character to complete a quest from that faction.

Like *Fallout 2*, *Fallout New Vegas* includes side quests that affect the game world, such as which factions are dominant in each area, which factions support the player-character for the completion of the main quest, and the consequential epilogue. These reactions from the text to the completion of these quests reveal that the side quests are integral to the completion of *Fallout: New Vegas*, as the side quests not only influence the player-character's own story but also determine the availability of different quests and the conversations that occur with NPCs.

3.4.3 Analysis of Side Quests

This case study of the *Fallout* franchise's side quests makes a clear distinction between those that act in a nodal fashion, and those that combine the quest with other aspects of the videogame narrative. Both are active narratives in that they respond to the player's narrative choices, however nodal side quests provide an immediate response to what the player has done, and occasionally a later consequence in the epilogue. The in-game consequence of nodal side quests is minimal; they only affect the minimo side quests of the maximo side quest completed. The combined side quests provide active elements as well, but apply reactions and consequences to other side quests, factions and main quests. In this regard, side quests display a range of reactivity, and a range of influence on the rest of the videogame narrative.

The analysis of *Fallout 1*'s side quest revealed there is a demonstrable active narrative that responds to player actions and enables a degree of alteration in the narrative structure. The range of actions available to the player allows for a range of possibilities in the completion of each quest's goals. The player can immediately complete the quest (such as killing Gizmo or Killian) but miss out on the complexities of the situation and of the world, much like the speedrunning examples seen in the mapping of cardinal functions. As such, the player determines the way the narrative is encountered in this side quest and, through the completion of the quest, determines the reactions that can occur. This side quest is nodal in its structure; however, this quest can affect the player's progression through its effect on the reputation system.

Fallout 1's reputation system prompts different reactions from NPCs, depending on the player's reputation score. Depending on how they complete main and side quests, players will get positive or negative reputation points that indicate how the citizens in the Wasteland see them. "Good" NPCs become hostile to a player-character who has a negative reputation score, and friendly if the player-character has a positive reputation score. The opposite occurs for "evil" NPCs. In the Gizmo and

Killian side quests, the standing of the player can predispose the NPCs to behave in a hostile fashion or a friendly fashion, and so affect the player's choice in which quest line they complete. Only a very high or very low reputation score will open or close quests; the system provides different responses from NPCs but not necessarily a change in the narrative structure of the videogame. In this regard *Fallout 1*'s nodal side quests do not affect the game world as directly as in *Fallout 2* or *Fallout: New Vegas*, but they affect it nonetheless.

The nodal side quests in *Fallout 3*, and *Fallout 4* differ from those in *Fallout 1* because the change in game engine alters how these side quests are placed within the overall game world. As the player-character is free to explore the Wasteland more freely than in *Fallout 1*, it is much more difficult to direct the player-character to one specific area, and so side quests can be encountered in a number of areas. However, even with this increased range in location, these side quests still operate in a nodal fashion. The side quests in both *Fallout 3* and *Fallout 4* only pertain to a particular area and so only affect the minisquences of the Megaton or Virgil side quest.

Furthermore, *Fallout 3* and *Fallout 4* treat their side quests as nodal due to their separation from the main quests. In both videogames, the consequences of these side quests have little consequence for the main quest. The side quests in *Fallout 3* and *Fallout 4* limit the narrative reactivity to benefiting the immediate area and the player-character, but otherwise offer no impact on the narrative of the game world. In *Fallout 3* the player-character's search for their father is segregated from the player-character's actions in the side quests. Regardless of what occurs, the player-character will always find their father. In the same manner, the player-character's actions in the side quests of *Fallout 4* have no bearing on finding the player-character's son, regardless of what the player does they will always eventually encounter the Institute.

Fallout 1, as well as the later *Fallout 3* and *Fallout 4* represent a smaller range of active narratives. The side quests are active in their narratives through the consequences of completing these actions such as dialogue from NPCs, or the destruction or survival of a particular area, such as Megaton or Shady Sands. However, beyond these examples the player's actions have no bearing on other side quests that occur within these videogames, or the main quest. As such side quests in *Fallout 1*, *Fallout 3* and *Fallout 4* primarily serve a gameplay function of powering up the player. Narratively, these side quests enable a deeper image of the game world and minor alterations to different factions or communities, but overall the player-character's actions in these sections do not alter the progression of the narrative structure of the videogame.

Fallout: New Vegas and *Fallout 2* break this nodal side quest design by having their quests relate to the relationship between different communities or factions, which in turn opens or closes the

availability of quests with each group, echoing Barthes' fugue notion of cardinal functions. These combined side quests enable narrative reactions that take into account how the player-character acted during these quests, rather than just whether or not the player has completed a quest. As such, the completion of a set of these side quests alters the game world, which is reflected in the behaviour of NPCs, the abilities of the player-character, and the range of quests available to the player. In this way the side quest sequences, as discrete units, can be seen to function in a larger array of maximo sequences throughout both *Fallout: New Vegas* and *Fallout 2*.

Focusing on the range of narrative activeness in these side quests, both *Fallout 2* and *Fallout: New Vegas* appear to offer the most in-game reactions. This is due to the range of solutions they provide to quests, assisted by their reputation system. In both videogames, the rankings of the player in each town, and the way they talk to various people, influence how the player-character could progress through the town. Choosing not to aid Vault City in *Fallout 2* means that the discovery of Vault 13, the New California Republic (NCR) and other areas would take place much later, in Redding or Broken Hill. This affects how the player approaches these areas and how the player-character relates to the world. For example, not aiding Vault City in *Fallout 2* means that the player does not get quests from the NCR to help their diplomatic relations. Where *Fallout 1*, *Fallout 3* and *Fallout 4* do not react to these specific player decisions, *Fallout 2* and *Fallout: New Vegas* do. It is in *Fallout 2* and *Fallout: New Vegas*' reaction that the side quests combine with each other to be more active narratives.

The variation of epilogue endings in *Fallout 2* and *Fallout: New Vegas* clearly demonstrates the various possibilities of the player's actions in the range of endings offered. The epilogue showcases the consequences of choices made in side quests, providing another reaction to the player. Particularly notable is the range of endings in both videogames, which reflects the variety of responses the game can provide to what the player has done. *Fallout: New Vegas* has a possible 187 different slides shown in the epilogue, and *Fallout 2* has 60 possible slides shown. Although this does not necessarily change the player's progression through the main quest, it offers the player a more precise reaction to what they have done within both games, beyond how they completed the main quest.

Regardless of whether side quests are nodal or combined, they are catalysts that propel the player forward into the game world and closer to a main quest cardinal function. They also act as a moment of rest for the player, distracting them from the main quest and inviting them to instead explore the game world. Side quests can be understood as catalysts, in that they are not a necessary step for

many players to complete the videogame, but they do aid the player to progress through the videogame. As Leonard Boyarsky points out regarding the development of *Fallout 1*:

I just think in a lot of ways the most memorable stuff in some of our games are the side quests and the other things you could do, because it doesn't have to have this major story where you're pulling the player through with its own constraints, there's certain things you need to do to make sure the player's engaged, the nature of the player is that they want to move forward. (Appendix 8.2)

Boyarsky points out that the non-essential nature of these side quests meant their completion or non-completion could be left up to the player's own interests. The fact that completing these side quests had certain consequences to the game world enhances their relevance and complexity, but does not make them essential to the completion of the videogame. Side quests contribute to active narrative elements of the *Fallout* games in that the player's choice as to whether or not they complete them has an impact on the flow and pace of the narrative.

3.5 Main Quests as Active Narratives

Fallout 1, *Fallout 2* and *Fallout 3* offer multiple solutions to the resolution of their cardinal function quests, but they do not offer the same degree of variation that both *Fallout: New Vegas* and *Fallout 4* display in their endings. *Fallout 1* allows the player to choose the order in which they will encounter and resolve major plot elements. *Fallout 2* offers players a choice of different pathways to the final location in the main quest. *Fallout 3* offers only a single path to the main quest's conclusion, yet at the end of the game, offers the player a choice to determine the outcome of the narrative. The choices of the player to take a different path do not in any way alter these cardinal functions in a significant way. Furthermore, the player's actions and the text's response in the catalyst sections, inclusive of side quests and player-led experiences, does not alter the way the main quest unfolds. In *Fallout: New Vegas* and *Fallout 4* these main quest endings can be completed through different methods, resulting in a range of different conclusions and epilogues.

Both *Fallout: New Vegas* and *Fallout 4* have active narratives in the construction of their cardinal functions, particularly from their middle cardinal function, the crisis, to the end cardinal function. The cardinal functions of the narratives in *Fallout: New Vegas* and *Fallout 4* can be summarised as follows.

Introduction initial crisis:

Fallout: New Vegas:

Player-character must recover the platinum chip.

Fallout 4:

Player-character must find son.

Middle:

Fallout: New Vegas:

Resolution: Player-character recovers and returns the platinum chip.

New crisis: Determine who controls Hoover Dam.

Fallout 4:

Resolution: Son is found.

New crisis: Determine the fate of the Institute.

Conclusion, resolution:

Fallout: New Vegas:

Resolve the fate of the New Vegas area through controlling Hoover Dam.

Fallout 4:

Resolve the fate of the Institute.

From the middle cardinal function onwards, both *Fallout: New Vegas* and *Fallout 4* offer various paths for the player to complete the final functions. Although aspects of their final cardinal functions (assaulting the Hoover Dam and determining the fate of the Institute) are fixed, they can be resolved in multiple ways, allowing the text to be altered through the player's actions.

The cardinal functions in *Fallout 4* and *Fallout: New Vegas* operate in a similar fashion to those of *Fallout 1*, *Fallout 2* and *Fallout 3*, but unlike the earlier games, they allow for audience action and respond to actions the player has performed outside of the main quest line. In *Fallout: New Vegas* the middle and concluding cardinal functions are set to involve returning the platinum chip and deciding the fate of Hoover Dam, but the player has multiple options and approaches for doing so – some of which may be introduced by the previously unrelated side quests. Similarly, the cardinal functions of *Fallout 4* are not definitive because the player can determine how these middle and concluding narrative functions are resolved by choosing from a greater array of methods to approach these cardinal functions.

Completing these cardinal functions through these various methods can be likened to navigating number of different paths, akin to a branching tree or multilinear narratives (DeMarle, 2007, p. 83; Jenkins & Squire, 2003, p. 73). However, the various methods by which these cardinal functions can be approached might be better understood as a series of sequences the player can choose. In this manner, these endings operate as a series of points through which the player is able to navigate (Apperley, 2006, p. 10), rather than solely a set cardinal function. This sequence approach involves a

set event that will always occur, but can trigger specific consequences through the player-character's actions and the reactions of the text. This becomes clear through the following analysis of both *Fallout 4* and *Fallout: New Vegas*.

3.5.1 *Fallout 4* Main Quest

Fallout 4 concludes with the player-character aligning themselves with a faction to resolve the end cardinal function. Compared to the other *Fallout* videogames, the player's ability to choose one of these factions does not rely on the success of previous side quests, or a high reputation with a faction (*Fallout 4* does not have a reputation system); rather, the player simply has to approach the faction to proceed through the main quest. Players can choose to attempt and complete all of the factional quests; however, at a certain point in the completion of each faction's quest line there is a "point of no return" which makes other factions hostile to the player. This "point of no return" is akin to the closing of a cardinal function (Barthes, 1978, p. 94), in that the game has noted the player's inclination towards a faction, and consequently the narrative has progressed. The results of choosing one of the four factions can be seen below with each faction's overall goal provided next to its name, and the "points of no return" listed underneath.

The Institute: player-character protects the Institute from the other factions.

Mass Fusion: makes the player-character an enemy of the Brotherhood of Steel when using the relay.

End of the Line: makes the player-character an enemy of the Railroad on completion.

The Brotherhood of Steel: player-character helps destroy the other three factions.

Spoils of War: makes the player-character an enemy of the Institute when boarding the vertibird.

Tactical Thinking: makes the player-character an enemy of the Railroad on completion.

The Railroad: player-character helps free the synthetics from the Institute and destroys both factions.

Underground Undercover: makes the player-character an enemy of the Brotherhood of Steel on completion.

The Nuclear Option: makes the player-character an enemy of the Institute when starting the quest.

The Minutemen: player-character helps destroy the Institute.

The Nuclear Option: makes the player-character an enemy of the Institute when starting the quest. The Nuclear Option is the only one that is needed to complete the Minutemen's quest arc.

Apart from the Minutemen faction's narrative, each of these endings involves a "point of no return" that acts to progress the main quest, closing off the narrative possibilities of the other faction quests, and opening up the concluding cardinal function. As such, the reaction from the text is largely determined by completing these quests – as opposed to how the player acts in these quests – which reduces the operation of the quests to a linear sequence instead of a combination of events that affect each other. The Minuteman quest arc does offer the possible variations of destroying or keeping either the Railroad or the Brotherhood of Steel, though this does not lead to any narrative reactions from the text; these factions merely continue to exist in the game world. In this construction of the main quest, the catalyst sequences can be considered the quests leading up to these points of no return, and the cardinal function would be these points of no return, which enable the narrative to conclude having selected one of these factions. These points effectively act as Barthes' 'fugue' in order to progress the main quest of the narrative, while also demarcating that the other factional quests cannot be completed.

The concluding section of *Fallout 4* can be considered a more complex development within the rest of the *Fallout* series, as the main quest is influenced by factional side quests that are initially non-critical to the completion of the videogame, but become cardinal functions when the player's progression along any one of these paths reaches a point of no return. The start of *Fallout 4* follows the same narrative structure of the earlier *Fallout* videogames and only alters when approaching the conclusion. However, as the overarching cardinal function is the same in all four endings – in that it focuses on resolving the fate of the Institute – the degree of change that each faction offers, and indeed the reaction from the text, is largely minimal and equivalent to the Megaton quest in *Fallout 3*. The sequence of the main quest has little bearing on the sequence of other side quests. While the Institute or any other faction is affected by the player's decision, the overall game world, NPCs and communities do not respond narratively to the player's actions. Although the player has a range of choice in how they wish to complete the videogame, the interactivity offered is much more in line with Ryan's concept of periphery interactivity (2015, p. 176), as even the epilogue displays largely the same ending with differences based on whether the Institute was destroyed or not. Therefore, the reactivity of the narrative does not match up with the actions that the player performs.

3.5.2 Fallout: New Vegas Main Quest

Fallout: New Vegas provides a series of side quests as soon as the player delivers the platinum chip to Mr House in the middle cardinal function. This marks the resolution of the first cardinal function, and the introduction of the concluding cardinal function. At this point, each of the primary factions approaches player-character and offers a chance to work with them, regardless of the reputation

score the player has with each group. These groups are Mr House, NCR, Caesar's Legion and the Yes-man – the last of which is the default path if the player-character fails with the other factions. This approach is similar to *Fallout 4*'s use of the Minutemen, and reflects the necessity of having a path available to the player at all times for the main quest, so that it can be completed.

After being approached, the player has the opportunity to play through each of the side quests that these groups present to them, which eventually results in the completion of the main objective: taking over Hoover Dam. However, unlike in *Fallout 4* this is not just a matter of following a quest path to its conclusion, but also a matter of how well or badly the player performs in these quests. Completing some missions will lead other factions to be hostile to the player, and prevent further progression for other factional missions; however, *Fallout: New Vegas* has a unique ability for the player to benefit other factions in the course of completing the original faction's quest. For example, the player-character can choose to work with Caesar's Legion, but as a ruse to attack the commander Caesar himself. The player-character can complete a variety of quests for each faction in a manner that can benefit opposing factions, as the player can jump between each of these missions and influence the course of events for each faction, or alternatively see these factional paths as relating to separate side missions.

Furthermore, in aiding their primary faction the player-character is able to go to sub-factions to gain further support. Different primary and sub-factions desire different outcomes; however, the player can choose to intentionally fail missions or aid these sub-factions in an alternative manner to get the outcome that they wish. The sub-factions are presented below with their title, and their relationship to the primary factional groups:

Boomers: can be befriended or ignored by all factions depending on the actions of the player. They can also be wiped out.

The Great Khans: can be influenced by changing their allegiance from Caesar's legion to another group.

White Glove Society: can only be persuaded to help Caesar's Legion.

Brotherhood of Steel: All factions can influence this group, either through acquiring their allegiance or destroying them.

Kings: This group is more complicated, as positive actions in the quest 'G.I. Blues' mean the groups NCR and Yes-Man will be positive, and negative actions mean the groups Caesar's Legion and Mr House will be positive.

Followers of the Apocalypse: This group can only be persuaded during the Yes-Man quest arc.

Omertas: This group's allegiance can be swayed to aid any of the NCR, Yes-Man or Mr House

Enclave: The NCR or Caesar's Legion can gain this group's allegiance.

It is worth noting that the player has potentially encountered these sub-factions already through their playthrough of *Fallout: New Vegas* and so when they encounter these sub-factions again, the groups will react more willingly to the player-character's wishes (as long as the player-character has benefited them). Furthermore, these sub-factions have different concerns, which are sometimes at odds with each other; if the player benefits one faction, the other can react negatively. For example, helping the Brotherhood of Steel means the Followers of the Apocalypse will become less helpful to the player, and vice versa. Alternatively, the player can attempt to placate both groups. While this does not benefit one group or the other – or indeed the player – it is a possibility that the player can attempt to enact and to which the narrative may respond. As such, the results of earlier side quests with companions, as well as general side quests, affect the reaction of various groups throughout the videogame, and its final outcome. Therefore, the side quests not only relate strongly to each other, but also have an effect on the main quest of *Fallout: New Vegas*.

It is important to note that the game bases the player-character's success with these factions not only on the completion of side quests, but also, further, on the actions the player takes within these side quests, which in turn affect the reputation system within *Fallout: New Vegas*. Player-characters are given a certain reputation based on which groups they help within *Fallout: New Vegas*; this reputation affects how different factions see the player, and is tied to the actions of the player as well as how they complete certain quests. If the groups like the player-character prior to the middle cardinal function, then certain aspects of the game are easier to complete. The opposite can be said for a negative reaction to the player-character. The only factor limiting when these side quests can be done is the "point of no return" quests, which close down the narrative possibilities of the other factional quests and open up the concluding cardinal function action.

The completion of these different quests, and the way these quests are completed, determines the attack on Hoover Dam and the fates of all the factions. This narrative reaction is presented through a lengthy epilogue, which identifies which faction controls Hoover Dam, followed by the results of the attack of the Dam, the result on surrounding factions and sub-factions, and then a discussion of the player-character's relationship with their companions.

This main quest – which relies heavily on the combination of a variety of side quests – makes use of several quests that alter in importance depending on what the player does. If the primary faction which the player aids demands the aid of a particular sub-faction, such as the Omertas, then that sub-factional side quest becomes integral in the progress of that primary faction's quest; however, for other primary factions this side quest may not come into play at all. Furthermore, the player's ability to fail these side quests establishes a wide range of reactions from the text, based on a

number of factors rather than just the success of a side quest. In this the side quests of *Fallout: New Vegas* are combined because of their interdependencies on each other and their influence on the main quest, which is regulated by the player-character's chosen actions. Therefore, the main quest of *Fallout: New Vegas* can be considered an active narrative because of the way it combines player action within its side quests and directs it to the cardinal functions of finding the platinum chip and controlling Hoover Dam.

3.5.3 Active Narrative Main Quest Analysis

The mixture of side quests and cardinal functions in *Fallout: New Vegas* shows the possibilities of active narratives in main quests through the non-critical yet integral use of many side quests as catalysts. Although each individual side quest is not necessary for the main quest of *Fallout: New Vegas* to be told, the interconnectedness of many of these side quests to each other, and to the main quest, provides an active narrative that continuously reacts to the player's actions. Much like the combined side quests seen in *Fallout 2*, the *Fallout: New Vegas* sequences continue to slot into larger sequences of narrative structures to be reactive to the player's actions. Further, the text's ability to react to the player's failure at these side quests⁴⁵ allows a myriad of possibilities that open up the player-character's experience of the videogame. Much as Tim Cain's guiding principle in *Fallout 1* was to allow players the possibility to complete the game no matter what their character is⁴⁶, so too does *Fallout: New Vegas* allow players to complete the videogame no matter their narrative choices. This does not mean that their choices do not matter; rather, the videogame responds according to their choices, abilities and intentions.

Comparatively, the other *Fallout* videogames do offer a degree of this interconnectedness in their completion. *Fallout 2* also presents side quests that affect other side quests, but lacks interdependence between the side quests and main quest, so the side quests do not affect the overall narrative structure. *Fallout 3* and *Fallout 1* share similar reactions in their side quests, as while the NPCs in the game world notice the player's actions, there is no run-on effect to other side quests or to the main quest. *Fallout 4*, much like *Fallout 2*, is close to the interconnectedness of *Fallout: New Vegas*, but does not offer a range of ways in which the player can complete different side quests or the main quest, as the videogame does not react in a different manner to the player's actions – just to which quest is completed. There is a range of active narratives present in these *Fallout* videogames – just not as dynamic a range as in *Fallout: New Vegas*.

⁴⁵ See Jesper Juul's *The Art of Failure* term 'Fictional Failure' (2013, pp. 91-115) for the role that failure in narrative provides to players.

⁴⁶ See end of section 2.3 "Player-Characters" where Tim Cain explains his experience running a GURPS campaign.

Fallout: New Vegas enables such reactions and actions at multiple points. Relationships with the factions can alter depending on the player-character's actions outside of their quests, and within these side quests, players can choose to betray different factions while completing their quests, assassinate key leaders or antagonise different groups into attacking them. While this behaviour leans into the concept of player-led catalysts, it is framed by the narrative of these videogames. Many in-game characters will ask the player why they are doing such actions and thus contextualise the fit of the player's actions within the narrative. This is much like the actions of *Deus Ex* or *Morrowind* in contextualising moments of counter-play.

Such combinations of the cardinal functions' main quest and the catalysts' side quests reveal that a narrative that allows changes to endings is not active in the sense that cardinal functions can alter, but in relation to the catalysts that the player completes. This can range from the way the player has completed such catalysts – such as in *Fallout: New Vegas* – to the completion of a factional arc, as in *Fallout 4*. Both games' narratives are active and altered by the player's actions, but only in regard to the completion of the cardinal function; the cardinal functions in these videogames are the “points of no return” that, in Barthes' analysis, closes and opens the action of the text. For both of these videogames it is at this moment that the player's actions can be reacted against and given consequences.

3.6 Conclusion

Active narratives, or catalysts, operate within the main quests, side quests, and player-led experiences of the *Fallout* franchise videogames. Because side quests, or minimo sequences, offer the most range for player-characters to act and be reacted to, this is where most interactions occur between the player and the text. The videogame then notes these interactions and emphasises them later on, encouraging the player to consider their actions – most prominently within the *Fallout* franchise, in the epilogue of each videogame.

In the main quest, active narratives are present in the manner that the events (sequences) leading up to a “point of no return” can be altered. In this manner, active narratives for the main quest are sequences that the videogame will note, and after the “point of no return” – the cardinal function – the narrative will progress and react to the player's actions up to that narrative point. This can be seen in the different endings within *Fallout 4* and *Fallout: New Vegas* based on factional allegiance. In both videogames, the reactions provided by the epilogue, as well as other characters, quests, and locations in the videogame, make the player aware of other narrative possibilities. It is especially in these in-game reactions, made evident in the hostility or benefits gained from NPCs, that an active

narrative can also be identified, enabling reactivity to occur not just after the completion of the videogame in the epilogue, but also during gameplay.

4 Comparative Analysis of the *Fallout* franchise

The previous chapters have explored both the passive and the active narratives of each of the *Fallout* videogames; however, this thesis is yet to fully examine how each *Fallout* videogame makes use of these passive and active narrative functions. Such analysis reveals the changes that have occurred within this videogame franchise over time, identifying industry influences, developer and publisher impact on the narratives of the videogames. While each *Fallout* game is unique in its gameplay and narration, it is only through a comparison with other *Fallout* videogames that the influences of each game on the others can be seen. Such a comparison provides a deeper exploration of how the games change their structure in reaction to audience actions. Making this comparison enables the thesis to answer its research questions – what the narrative structures are in the *Fallout* franchise, and how these structures can be altered – for the franchise as whole, instead of on a game-by-game basis.

This chapter analyses the passive narratives of each of the *Fallout* videogames before exploring the active narratives of each videogame. The passive narrative analysis focuses on how each videogame provides a suitable platform for player action before examining the paratext of each videogame, and the manner in which paratext introduces the text to the videogame. The active narrative analysis focuses on the differences in how reactivity is presented in each of the *Fallout* videogames, discussing the method of reaction in the videogame rather than the overall reaction from the text (which was seen in the analysis of main quests in the previous chapter). Lastly, this chapter examines the later developments within the Bethesda Softworks-produced videogames of downloadable content (DLC), suggesting the placement of these narrative sections within the overall narrative structure represents a development of these narrative sections. Through this analysis of the franchise as a whole, the shifting roles of passive and active narratives can be seen throughout the *Fallout* franchise's development.

4.1 Passive Narrative Analysis

The *Fallout* franchise's passive narrative foundation is a constant throughout the series. This enables passive narratives to progress the audience through the game world from the introduction to the conclusion of the narrative (Figure 38). Each section operates in a similar fashion, introducing a crisis for the player to solve, or resolving those crises due to player involvement. The passive narrative chapter discussed how Barthes has described this process as a 'fugue' that enables narrative possibilities to open or close (Barthes, 1978, pp. 103-104). It is this opening and closing of narrative possibilities that creates a framework for the player-character's actions that enables the progression of the game.

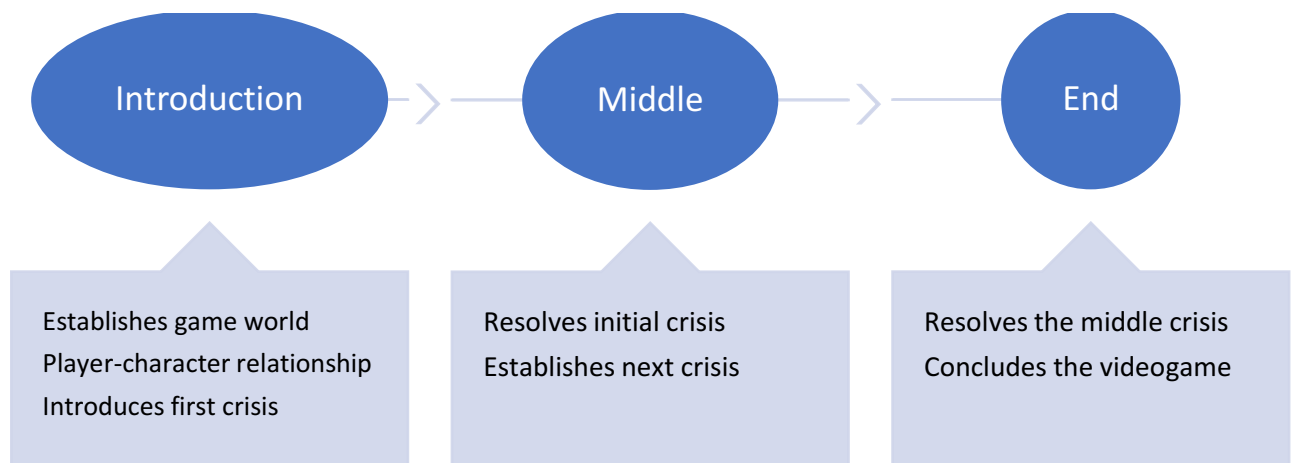


Figure 38: Cardinal functions as they operate within the *Fallout* franchise. Source: Self

These cardinal functions cannot be altered, as the events they depict always occur and are a necessary structure of the videogame. The player has some ability to change the outcomes of these cardinal functions; however, this is related to main quest sections that act as active narratives, much like the nuanced play of *Fallout: New Vegas*. The player may be able to apply a range of actions to a scene, but the result is predetermined. For example, in *Fallout 3* on finding the player-character's father, the player can be rude or considerate in their responses to their in-game father; however, this does not affect the progression of the cardinal functions. Therefore, the cardinal functions and the passive narrative of each *Fallout* videogame appears to operate in largely similar ways; however, differences can be seen in the specific content they depict not their structural form.

The initial crisis provided by each *Fallout* videogame establishes the player-character's relationship to the game world: not only in what is expected from them, but also the range of activeness they can perform in the videogame. *Fallout 1* and *Fallout 2*'s initial crises of tasking the player to find items to save their community offer a different range of narrative possibilities compared to the initial crises of *Fallout 3* and *Fallout 4* of saving a family member. Each of these passive narratives establishes a frame for what types of characters the player can play as, which quests are available to the player, and the range of reactions from the narrative. As such, this chapter compares passive narratives to discover how the content of these passive narratives influences player action.

4.1.1 Passive Narratives Influence on Player Action

Passive narratives frame the range of action a player-character can do within a videogame, beginning with the introduction of the initial crisis. As chapter 2 "Passive Narratives" explored using the work of Gonzalo Frasca, players are expected to perform to a certain degree in videogames (2003, pp. 228-229). Although players do have a certain degree of freedom in how they can interpret their character's script, they are unable to change that script. Because it must establish both crisis and character, the passive narrative influences the actions the player-character can perform.

In *Fallout 1* and *Fallout 2* there is no single “correct” way to grab the quest items required to fulfil the main quest’s central requirement – the Waterchip or the G.E.C.K. – as there are no background details provided beyond each community’s need for these items. Because there is no limitation on the main quest, this crisis presents a wide range of actions available for the player-character to progress in these *Fallout* videogames. For example, in *Fallout 1* players could simply take the Waterchip from the community of Necropolis, without worrying about the disruptive consequences. Alternatively, the player could attempt to help this community before taking the Waterchip. In both these examples, the player is not presented with a “correct” way of progressing the main quest as there are multiple options available to the player in how to progress. The passive narrative that tasks the player with acquiring this item is supported by a number of active narratives, which provide the player with a method of resolving the crisis of a cardinal function.

The later videogames *Fallout 3* and *Fallout 4* change this initial crisis from finding an object to rescuing a family member. This changes the possible active narratives that can occur, as these active narratives must now situate themselves within the narrative frame of having a family member. This main quest still provides a range of possible active narratives for the player-character; however, the scope of the player-character’s backstory and active narratives is reduced from the earlier *Fallout* videogames, as for progression to occur the player-character must always be able to rescue their family member. In *Fallout 3* and *Fallout 4*, this means that regardless of the player-character’s actions throughout the videogame, their family member will always talk to the player-character and progress the main quest. Actions taken by these family members (or rather, by the narrative) will always progress the main quest to the next stage and not provide nuance in their responses. This can be seen in the reaction of James in *Fallout 3* to the destruction of Megaton: although the character responds negatively to the player, the main quest still continues. Because of the limited range of available reactions for *Fallout 3* and *Fallout 4*, often the player’s actions do not receive a strong reaction or are even ignored in favour of the progression of the main narrative. However, in *Fallout 1* and *Fallout 2*, whose main quest progression only relies on the acquisition of quest items, the player-character’s actions in certain locations make game areas and side quests unavailable to the player if they take these quest items in a way that is antithetical to different groups.

Fallout 1 and *Fallout 2* lack characterisation for the player’s avatar, which in turn facilitates a wider range of player action, as the player is able to create much of their character’s backstory (Walsh, 2007, pp. 110-113). The player can determine how their character will react to a large number of situations as their character is largely undefined, beyond being part of a community. Because of this loose character design, the player is free to determine their relationship with the main quest, with their community and with other characters.

Because *Fallout 3* and *Fallout 4*'s main quests are founded on a family member, they rely on the player-character having a relationship with this family member. Both videogames attempt to facilitate this relationship with the family members by introducing both James in *Fallout 3* and Shaun in *Fallout 4* to the player-character in the prologue-tutorial section, well before any crisis occurs.⁴⁷ This is done to facilitate a sense of loss for the player as this family member has been taken away from them. Similarly, *Fallout 1* and *Fallout 2* provide players with a necessary relationship with their community before setting out into the wastelands; however player-characters in the earlier videogames are attempting to keep their communities safe from an intangible threat (thirst or starvation), as opposed to searching for something their character has personally lost (a family member). It is primarily these differences in the content of the main quest crisis and background that provide the distinctions between the passive narratives of the *Fallout* franchise.

Fallout: New Vegas offers a combination of the two different types of passive narrative content as its players acquire both a quest item – the platinum chip – and a character relationship – ‘Benny’, the man who takes the platinum chip from the player-character. The platinum chip is all that is required for the continuation of the main quest; however, the character of Benny provides another realm of motivation and narrative possibility. In this regard, the player can approach Benny in a number of ways, resulting in a number of results, and is still able to complete the videogame. As the progression of the main quest is not tied to Benny's survival but the acquisition of the platinum chip, the passive narrative provides a platform for several active narratives to occur. For example, the player can steal the platinum chip from Benny, allow him to escape, or seduce Benny into giving the player the chip. All these narrative actions can occur because the cardinal function is the acquisition of the chip, rather than getting Benny to behave in a certain fashion. Although the player-character can get Benny to behave in a certain fashion, which then allows them to acquire the platinum chip, this is not the sole method of progression. In *Fallout: New Vegas* Benny is not a necessity of the narrative and so the player can determine his fate. Establishing the player-character as a courier with amnesia – a blank slate – further allows the player to create their character's backstory. The passive narrative of *Fallout: New Vegas* allows for a wide range of active narratives from the presentation of its initial crisis and player-character.

With this in mind, the development of *Fallout: New Vegas* and *Fallout 4* makes use of side quests to progress the overall narrative. Mapping this progression onto Barthes' narrative structures reveals

⁴⁷ Such videogames stage kidnappings of characters in the latter half to create a noticeable impact on the player, as characters with whom they are used to fighting over the course of hours are now lacking from the videogame. Games such as *Half Life 2* and *Beyond Good and Evil* make use of such a narrative, which results in a lack of ability on the part of the player, due to the loss of the character.

the cardinal function to be the overall progression point: choosing what to do with the platinum chip in *Fallout: New Vegas*, and what to do with the Institute in *Fallout 4*. The catalysts or side quests are a method in which this progression can occur, as each of the different faction quests in these two videogames allow for a closing of the initial crisis, and an opening of another their function is a 'fugue' (Barthes, 1978, pp. 103-104) in that it 'holds and pulls on' previous events, and progresses the narrative through their 'consecutive and consequential' actions (1978, p. 94).

This section has readily demonstrated the impact of passive narrative content on the active narratives in these *Fallout* videogames. Comparing *Fallout 3* and *Fallout 4* to the earlier games *Fallout 1* and *Fallout 2* reveals that the design of the passive content of these videogames determines the range of player action in these videogames.

4.1.2 Passive Narratives through Paratext

The paratextual introduction of *Fallout's* game world has changed over time: each new instalment makes less use of physical paratextual elements, such as manuals or box art, and more use of digital elements, such as in-game tutorials or online content. *Fallout 3*, *Fallout: New Vegas* and *Fallout 4* still make use of the physical paratexts of manuals and box art, but to a lesser extent than what is seen in *Fallout 1*. In this manner, the paratextual introductions of the *Fallout* franchise have changed to make more use of the digital medium, establishing knowledge about these videogames on-screen rather than in physical packaging. This shift from physical to digital paratext reveals similarities and differences: the content of the paratext is similar, and functions similarly to engage the player with the *Fallout* franchise's narratives; but players engage differently with the physical and digital forms.

Both *Fallout 1* and *Fallout 2* relied on the release of boxed editions of their product. This included a manual, CD-ROM disk, promotional material for Interplay, and the cardboard box that housed it. The information provided by the box blurbs and the manual helped establish the settings of both these games and convey their type of story and gameplay. As such, before even installing the game on their computer players could anticipate what they could do in these videogames. These physical objects helped players anticipate the fictional world of *Fallout*.

With the introduction of *Fallout 3*, and the later titles, such paratextual information was presented through the internet. This enabled players to follow the development process from the announcement of *Fallout 3* to its release in October 2008. This paratextual information included gameplay videos, concept art, interviews with developers, as well as teaser trailers, all of which showcased various aspects of *Fallout 3* before its release, superseding the physical paratext to provide a hint of the fictional world before its release. Prior to the launch of *Fallout 4* a videogame for mobile phones, *Fallout Shelter*, was released as a promotional tool. Although it largely depicted

the world of *Fallout* rather than directly advertising *Fallout 4*, it nevertheless provided a glimpse of *Fallout 4*'s fictional world and had a positive impact on sales for *Fallout 4*.

This shift of paratext from a physical presence to a complex digital one represents improved marketing by Bethesda Softworks, as each videogame has sold highly (Figure 39). Because videogames are increasingly distributed and sold through online platforms, the role of box art, manuals and physical copies of the videogames has decreased in light of the need for an online presence. The increased sales of each *Fallout* videogame show that the increase in digital paratext has increased interest for the *Fallout* videogames. This evolution of paratext points towards an emphasis throughout the *Fallout* franchise to draw the audience into the narrative before they have even bought the videogame. However, this does not mean that physical paratext does not also have its use in the recent *Fallout* videogames.

Pos	Game	Platform	Year	Genre	Publisher	North America	Europe	Japan	Rest of World	Global
1	<i>Fallout 4</i>	PS4	2015	Role-Playing	Bethesda Softworks	2.64	3.50	0.25	1.20	7.59
2	<i>Fallout 3</i>	X360	2008	Role-Playing	Bethesda Softworks	3.41	0.99	0.09	0.45	4.94
3	<i>Fallout 4</i>	XOne	2015	Role-Playing	Bethesda Softworks	2.69	1.38	0.02	0.41	4.49
4	<i>Fallout: New Vegas</i>	X360	2010	Role-Playing	Bethesda Softworks	2.66	1.03	0.04	0.33	4.06
5	<i>Fallout 3</i>	PS3	2008	Role-Playing	Bethesda Softworks	2.16	1.13	0.07	0.59	3.96
6	<i>Fallout: New Vegas</i>	PS3	2010	Role-Playing	Bethesda Softworks	1.53	1.03	0.10	0.46	3.13
7	<i>Fallout 4</i>	PC	2015	Role-Playing	Bethesda Softworks	0.55	0.75	0.00	0.11	1.40
8	<i>Fallout: New Vegas</i>	PC	2010	Role-Playing	Bethesda Softworks	0.59	0.45	0.00	0.14	1.17
9	<i>Fallout 3</i>	PC	2008	Role-Playing	Bethesda Softworks	0.02	0.88	0.00	0.08	0.98
10	<i>Fallout 3 Game Add-On Pack: Broken Steel and Point Lookout</i>	X360	2009	Role-Playing	Bethesda Softworks	0.16	0.06	0.00	0.02	0.24
11	<i>Fallout 3 Game Add-On Pack: The Pitt and Operation: Anchorage</i>	X360	2009	Role-Playing	Bethesda Softworks	0.09	0.00	0.00	0.01	0.10
12	<i>Fallout: Brotherhood of Steel</i>	PS2	2004	Role-Playing	Avalon Interactive	0.03	0.03	0.00	0.01	0.07
13	<i>Fallout: Brotherhood of Steel</i>	XB	2004	Role-Playing	Avalon Interactive	0.04	0.01	0.00	0.00	0.05
14	<i>Fallout Trilogy</i>	PC	2004	Role-Playing	Ubisoft	0.00	0.02	0.00	0.00	0.02
15	<i>Fallout Anthology</i>	PC	2015	Action	Bethesda Softworks	0.00	0.01	0.00	0.00	0.01

Figure 39 Sales figures for the *Fallout* series. The numbers on the right correspond to per million copies sold. Source: VGchartz.com

The production of collector's editions from *Fallout 3* on is the remediation of the physical paratext of *Fallout 1* and *Fallout 2*. This development enables some of these paratextual elements to be retained at an increased price for the consumer. The benefits for the consumer are largely in the physicality of accessing such items outside of the game text, or outside of their videogame system, although in later videogames such as in *Fallout: New Vegas*, players were given "premium" in-game items to

enable a swifter progression through the videogame. The remediation of these prestige items from the physical collector's editions to digital ones reflects the ongoing emphasis on transforming physical paratext to a digital one. Much as *Fallout 3* remediates the game mechanics of *Fallout 1* and *Fallout 2*, so too have these Bethesda Softworks produced videogames remediated the paratexts of these earlier texts.

The emphasis of this digital paratext, is supplemented by the increase of digital sales for the *Fallout* videogames. Todd Howard, lead developer of *Fallout 4*, highlighted in an interview with *Game Informer* that: '*Fallout 4* sold more day one digitally than at retail' (Reiner, 2016). Although the momentum of digital sales over physical sales has proved to be a general industry trend (Newman, 2012, pp. 25-27), the continuing presence of physical copies of these videogames, and of collector's editions, showcases that paratextual world building is important to the player in all forms.

Paratext functions similarly throughout the *Fallout* franchise as a method of audience engagement, regardless of the form. Both physical and digital forms of paratext point the player towards the text. As digital paratext remediates the physical products of *Fallout 1* and *Fallout 2*, the use of paratext on an online platform is just an extension of Tim Cain's original notion of providing the '*Fallout* experience' to the player before they access the text. However, the videogames that use the digital form of paratext require an online connection to play, and their lack of physicality means that there are boundaries to this digital paratext that did not exist with *Fallout 1* and *Fallout 2*. Players without an internet connection thus miss out on the paratext, and if they purchase a physical copy of the videogame they have less content to access as most of the paratext is available online.

Much like the passive narrative of the *Fallout* franchise, its paratext has remained the same in functionality – providing the player a means into the text – but has changed in form and to a degree in content. *Fallout* has changed from a single-player videogame that fans would discuss in person to one that is shared globally through the platform of the web.

4.2 Active Narrative Analysis

Active narratives in the *Fallout* franchise show the most formal variation from videogame to videogame. This owes to the manner in which these videogames track player-characters and how these videogames enable an effect on the player-character. Active narratives can be considered in terms of the narrative aspects they affect, as was discussed in section 3.1 "Activeness in Wider Scholarship" in Marie-Laure Ryan's *Narrative as Virtual Reality 2's* taxonomy of interactivity. As such, each *Fallout* videogame can be viewed in a myriad of ways to determine its activeness. This section examines the range of active narratives in side quests, main quests and, to a small degree, player-led

experiences in relation to each other, in order to analyse what makes each *Fallout* videogame different overall, as opposed to just within side quests, or in the main quest.

As Hans-Joachim Backe highlights, a narrative's activeness is specific to the individual videogame, and while they can be similar to one another, they differ in terms of the methods by which each videogame is reactive. What may be an essential system for one videogame – such as turn-based combat – is not present in other videogames. Even similar games such as *Fallout 1* and *Fallout 2* differ in the way their respective epilogue systems operate. In *Fallout 2* these endings are determined, in part, by the player's karma; this is not a factor in the epilogue system of *Fallout 1*. Therefore, this section will focus on the particulars of reactions housed within the side quests to determine the effect of the action on the rest of the narrative structure. To do so, the section will compare the reactivity of each videogame to the others: *Fallout 1* and *Fallout 2* can be examined against each other, as can *Fallout 3* and *Fallout: New Vegas*.

Fallout 1 presents reactions through the global variables that reflect Tim Cain's design goals. These global variables are the primary way of addressing the player's methods for completing objectives in the videogame, and the game engine does not distinguish between what these variables represent (either main, side, or player-led experience) – rather, it simply notes that these events occur in the videogame. Hence, the game responds to many of the player-character's actions in a series of smaller nodes that can situate themselves at any point in between the cardinal functions of *Fallout 1*. The cardinal functions of *Fallout 1* further ensure that the player always has a possibility for narrative progress in the main quest, and in offering this possibility the game provides different choices – catalysts – as to how the player can achieve their objective. In this manner, *Fallout* is an active narrative as it provides a space for players to progress but further reacts to their actions in these situations.

In *Fallout 2* this progression of nodes becomes interconnected with other nodes, forming potential arcs that can potentially relate to each other, but rarely to the cardinal function. For example, the player's approach to the Enclave (the end cardinal function) can be done through two different side quests, which are mutually exclusive. However, for the most part the side quests are made to relate to each other, and so the success of one would lead to further side quests, such as the possible permutations for entering the Vault in Vault City, which can be seen in the case study of *Fallout 2's* side quest. So, *Fallout 2* has more intricate side quests than *Fallout 1*, which build on each other rather than acting as independent nodes like *Fallout 1's* side quests. However, if the player fails side quests, the side quest arc cannot be completed and the game would react to this result by treating it

as a failure in the epilogue rather than a distinctive choice, as would be seen later in *Fallout: New Vegas's* epilogue system.

Both *Fallout 1* and *Fallout 2* use the cardinal functions of their narratives as set points to build up their side quests. As a result, the side quests operate in parallel to the main quest but do not alter the results of the cardinal function. Instead, the side quests and the side quest arcs are the sections in which active narrative occurs and the narrative reacts to what the player has done.

Fallout 3 emulates much of *Fallout 1's* use of cardinal functions as set points and side quests as individual nodes that do not affect each other. *Fallout 3* attempts to provide narrative activeness in the main quest with two choices – whether to use the FEV, and whether to sacrifice themselves – however, these choices presented to the player have little to no effect on the events in-game, but are referred to strongly in the epilogue. Furthermore, the epilogue alludes to the completion of various side quests, however, no dialogue is presented referring to the consequences of the player's actions; instead, images of what the player has done are displayed with no further context. The reactions of the text are present within the epilogue, but focus on whether the player's overall actions were good or bad, rather than focusing on the specifics of each side quest.

Fallout: New Vegas displays the most intricate of the reaction systems, primarily because of the interactions it allows with its mixture of side quests that affect each other and the main quest, as discussed in the case study of *Fallout: New Vegas's* main quest. Furthermore, the reiteration of these reactions in the epilogue provides a reminder of the player's actions and consequences within the game world. Therefore, *Fallout: New Vegas* displays flexibility in its side quests and reactivity in having each development effectively gated so that the reactions can occur as new events come into play.

Fallout 4 breaks from the previous *Fallout* videogames in its use of reactivity: although the player can choose to support a particular faction to complete the main quest of *Fallout 4*, this is essentially reduced to two outcomes of whether or not the Institute is destroyed. The epilogue system further reinforces the importance of this choice due to a lack of other content in the epilogue. Although the text provides several immediate reactions to what the player-character does in quests, for the most part the game's reactions rely on a quest being completed, rather than emphasising that there are different methods of completing each side quest. The use of the player community to provide reactions through comments, fanfiction, fan art and other media forms discussing *Fallout 4* alleviates some of this lack of reactivity from the text. However, much like in *Fallout 1*, the side quests seem to exist as separate nodes, while the main quest just relies on the completion of a series of factional quests, rather than performing certain actions within these quests.

Examining this design of active narratives reveals a change from *Fallout 1* to *Fallout 4*: the game designers are choosing to make the game increasingly more responsive to the player's choices in quests, and in their general actions, until *Fallout 4*. *Fallout 4* shows a marked difference of activeness, as its narrative is not concerned with reactivity to the same degree as *Fallout: New Vegas*. Instead it presents a system that reacts to the actions of the player in a broader fashion. Other aspects of *Fallout 4* can be considered as supplements to this lack of active narrative, such as the ability to create settlements, make armour, and customise the player-character. These elements can be considered supplementary to the main quest of *Fallout 4*, as the player must construct a settlement or particular device that they then use to progress the main quest. In this manner, unlike the previous *Fallout* videogames, *Fallout 4* uses player creation of objects and locations as a method of progressing the main narrative.

In this presentation of the *Fallout* franchise, *Fallout 2* and *Fallout: New Vegas* have improved upon *Fallout 1* and *Fallout 3* in how their side quests are used to influence each other, and influence their main quest. *Fallout 4* stands out as an exception to this improvement, however it presents new gameplay mechanics such as the creation of settlements as a part of its main quest. The development of each *Fallout's* active narrative has grown in complexity from each new game engine, and from *Fallout 3* onwards it has been further refined by developers who provide downloadable content and patches that provide a further form of reactivity for the players of these games. These reactions can be considered a further form of activity that is supplemental to the core text.

4.3 Active Developers

Digital or downloadable content, also known as DLC, has replaced the concept of videogame expansion packs. Given the rise of internet speeds and digital distribution platforms such as Steam, Origin and Uplay, videogames can be sold online without the overhang of physical distribution – which has been explored in relation to the development of collector's editions.⁴⁸ By providing digital content immediately to consumers, developers increased their ability to provide patches, updates and online content. However, such an increase in content meant that players' versions of the videogame were no longer uniform: content that needed to be updated in one player's videogame might not be needed in another's, depending on whether the player had that particular software pack. With this in mind, digital content needed to be added to the base game in a method that allows players to access the material, but also demarcates which sections of the videogame are part of the "core" game (represented as a Master file), and which parts are extra (Burgess, 2015). Each

⁴⁸ See section 2.4 regarding collector's editions and paratext.

Bethesda Softworks production of *Fallout* includes a Data Files screen in which players can choose the content that is displayed with their videogame (Figure 40).

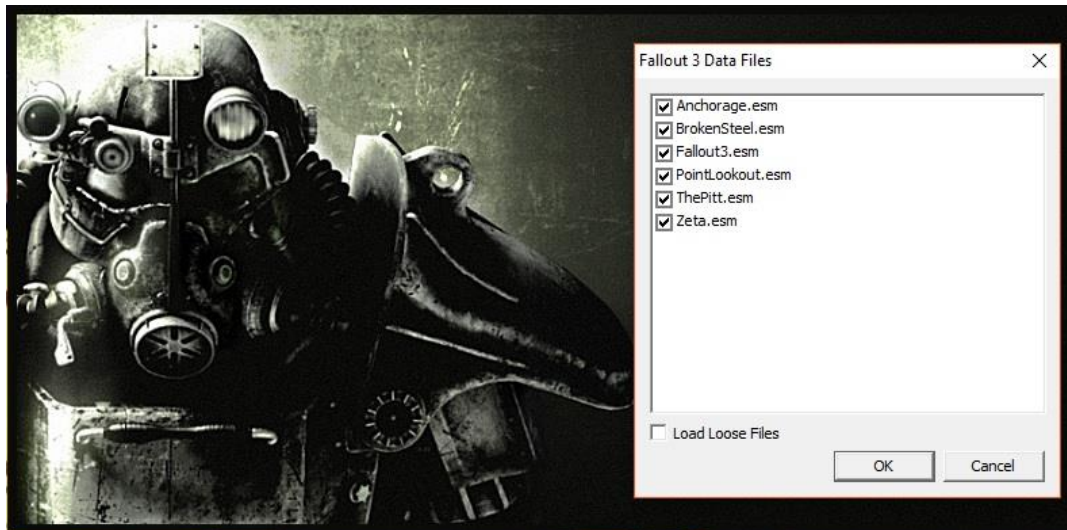


Figure 40: Fallout 3 Data File screen. Source: *Fallout 3*

It is important to note that the DLC content provided for *Fallout 3*, *Fallout: New Vegas* and *Fallout 4* is all housed within the narrative structure. Because the DLC for *Fallout 3*, *Fallout: New Vegas* and *Fallout 4* are optional, they act as catalysts that can be slotted in between the cardinal functions of each of these videogames. The only exception to this provision is the DLC that occurs after the concluding cardinal function: in *Fallout 3* this is *Operation Anchorage*, while in *Fallout 4* this is *Far Harbour* (Figure 41). Both DLCs operate as a rejoinder or playable epilogue to the events of the core videogame, and as such are based on how these videogames concluded and the actions of the player up until this point. In this regard the cardinal functions of *Fallout 3*, *Fallout: New Vegas* and *Fallout 4* are seen as necessary in the construction of further narrative content for these videogames, as they need to operate alongside the core videogame as an optional and contingent piece of narrative. Furthermore, such functionality for these *Fallout* videogames has supported an increased focus on modding action by fans of the series (Unger, 2012, pp. 511-514).



Figure 41: The DLC range for *Fallout 4*. Note that *Far Harbour* is the only DLC that provides further quest content in the form of investigating a new landmass. Source: Bethesda Softworks

From its development in 2008 by Bethesda Softworks, the *Fallout* series came with the Creator kit, which enabled players to create or modify content in the *Fallout 3* world. This could include different 3D assets, levels, characters, or even the player's own quests. Players can then share these files with other players and have others experience the content that they have created. In *Fallout 3* and *Fallout: New Vegas*, modification was presented as an optional expansion of the text. *Fallout 4* strongly emphasises the need to create items and settlements for the player to advance in the main quest, and provides an introduction of sorts to the modding practice (Figure 42). Through the creation of such tools, fans have continued to contribute and develop these products that appeal to their sense of community resources (Jenkins, 2006, pp. 131-168; Consalvo, 2009, pp. 5-9).



Figure 42: *Fallout 4* Creation kit, with *Fallout 4* Workshop mode on right. Source: *Fallout 4*

Through the developments of DLC and modification of the *Fallout* videogames, further narrative content can be created and implemented into these Bethesda Softworks production videogames, allowing for a potentially limitless production of side quests and content. Although issues such as authorship can occur within the ongoing development of side quests and other narrative content, this culture of DLC and mods indicates a further area of research to consider in future for narrative studies in videogames.

4.4 Conclusion

This chapter has explored the similarities and differences of passive narratives, active narratives, and developer activeness in each of the *Fallout* videogames. Passive narratives can be seen as a constant throughout each of the *Fallout* videogames, and the content of these passive narratives can be seen as the major difference that allows various types of active narrative to occur. In active narratives, the differences between each videogame are quite pronounced in each videogame's notions of action and reactivity. In terms of developer activeness, the integration of DLC and modification capabilities of these videogames, alongside the pre-existing passive and active narratives, showcases the need for a theoretical grounding to support future additions of narrative from both developer and fan.

Furthermore, this chapter highlights the growing emphasis on player ability over the *Fallout* franchise's previous concern with being reactive. Although narrative is important for the *Fallout* franchise, this development is secondary in *Fallout 4* to the player's ability to exist within this sandbox world. Understanding *Fallout 4*'s audience and developer activeness in future research is the key to understanding how narrative in these new developments can make use of both the player community and the developers' inclusion of modifications in the videogame.

5 Conclusion

Fallout videogames have a narrative structure that allows the player to explore and affect each games' narrative. An analysis of the *Fallout* videogames of their active and passive narratives showcased the extent to which players could change or experience narratives in each *videogame*. Primarily, I argue that passive narratives establish the narratives of videogames and the affordances for players, and furthermore states that active narratives enable moments of reactivity from the text to what the player does. To further clarify the goals and aims of the thesis questions are revisited below:

'What are the narrative structures for role-playing videogames, such as the *Fallout* franchise?' This question was proposed to understand how developers structure videogames in order for both passive and active narratives to occur. The passive narrative acts as a foundation: it establishes the progression of the player-character through the videogame as well as establishing the construction of the game world. Meanwhile, the active narrative provides the player with moments of action that can influence the narrative events.

'How can these narrative structures in the *Fallout* franchise be altered?' This question revealed the manner in which the text and the audience could affect the progression of narrative within the *Fallout* series – namely, through the active narrative. The thesis answered this question through an analysis of side quests, aspects of the main quests, and player action, exploring the player's and text's dynamic aspects.

Further, the question of **'how can these narrative structures in the *Fallout* franchise be altered?'** provokes more questions about the impact of developers and communities on the development of narratives outside of the text. This becomes evident when examining how the developers and publishers of *Fallout 3*, *Fallout: New Vegas* and *Fallout 4* foster communities to use modification tools and to produce fan content.

With these aspects in mind I have found that the cardinal functions of the *Fallout* videogames do not alter; it is the catalysts leading to these cardinal functions that permit such variations to happen. This is clearly seen within the side quests of the *Fallout* franchise due to the immediate reaction and later epilogue scene, which indicates to the player that they have resolved a quest in one way out of many. Owing to their foundational nature, the cardinal functions provide the opportunity for the player to take action to resolve a crisis. As the player will always succeed at this cardinal function, it is the active narrative – the catalyst – that determines how the player will succeed, and to which the narrative then reacts. Furthermore, when these reactions from the narrative are made

consequential to other events – as was seen in the analysis of *Fallout: New Vegas* – the game fosters complexities in how side and main quests arise. This exploration of the *Fallout* franchise has found that for videogame narratives to operate, a foundational passive narrative is needed to support an active narrative that reacts to the player's actions.

5.1 Chapter Overview

This chapter overview has been provided to highlight the arguments and scholars used in each chapter:

Chapter 1, the introduction, established the scholars to be used within this body of work. Influenced by the work of Roland Barthes, and more recently Hans-Joachim Backe, it explained what was considered the text: a structuralist project that had distinct narrative units. Secondly, the chapter explored the manner in which the text and the audience could be considered as active through Dan Pinchbeck's notion of affordances, and through the work of Mihaly Csikszentmihalyi's active experiences. With this established, the thesis could proceed to examine active narratives and passive narratives.

Chapter 2 focused on passive narratives and provided an explanation of main quests to understand the structure of narrative in the *Fallout* series. It did so by implementing Roland Barthes' cardinal functions as the introduction, middle and end of the *Fallout* videogames. These cardinal functions were found to structure the narrative of the *Fallout* videogame and, furthermore, to establish the player's affordance in regard to narrative. This chapter found that these cardinal functions either initiated or resolved a narrative possibility; this in turn enabled the narrative events of the videogame to progress through this resolution and initiation of crisis. Furthermore, this chapter found that cardinal functions could not be changed by the player's actions owing to the game's structural nature. However, allowances by the game would change the results of this cardinal function, depending on the range of narrative activeness offered to the player. In *Fallout 1* the cardinal function was the acquisition of the Waterchip; the active narrative of this cardinal function was to steal, or to aid the community of Necropolis, to gain the Waterchip. In this manner, the chapter concluded that establishing narrative certainty within a videogame – that is to say, the provision of a set structure of narrative that cannot be changed and is thus passive to the players' actions – is required for the dynamic elements to succeed.

Chapter 3 focused on active narratives and explored side quests in the *Fallout* franchise, as well as the main quests in *Fallout: New Vegas* and *Fallout 4*, to understand the methods by which narratives are reactive. Following an analysis of side quests and main quests throughout the *Fallout* franchise, this chapter found that the extent to which players are able to change aspects of the narrative has

changed within each videogame. This is exemplified in *Fallout: New Vegas*' use of side quests to influence each other and the main quest in a complex fashion. The chapter compared this game to *Fallout 4*, which provides a surprising lack of active narrative in both its side quests and main quest. The exploration of *Fallout 4* revealed a new element: an emphasis on gameplay mechanics of settlement, weapon and armour crafting in the main quest. Only a simulacrum of active narratives was found in the player-character's choice of how to complete the main quest of *Fallout 4*, as only two reactions to the player's choice are noted in the videogame's epilogue. In this chapter, active narratives were most evident when there were a range of consequences to the player's actions in other side quests, main quests and interactions within the videogame, and a lack of active narrative when demarcated between side and main quests.

Chapter 4 provided a comparative analysis of each *Fallout* videogame to the others in regard to passive and active narrative, while discussing the impact of DLC and modifications on narrative structures. This chapter found that passive narratives were largely similar in function and form, but differed in content between looking for a quest object (Waterchip, G.E.C.K. and Platinum Chip) and searching for a family member (the player-character's father or son). This led to a discussion of player motivations and restrictions provided by the passive narrative, as the cardinal functions established by the videogame effectively act as restraints to the possibilities of the active narratives. In this regard, *Fallout 1*, *Fallout 2* and *Fallout 3* allowed for a wider range of active narratives to occur, due to their reliance on the acquisition of objects rather than the interaction of characters for their cardinal functions. Active narratives were varied in their forms and functions, enabling player-characters to act against the presented narratives of the *Fallout* videogames, particularly in side quests – however, this range of action varied for each videogame. *Fallout: New Vegas* stood out as an exception as each side quest aided a faction, but could also contribute to the main quest. *Fallout 4* provided a comparison to *Fallout: New Vegas*: its side quests seem to reflect *Fallout 3* as they did not affect other aspects of the videogame. Following on from this discussion, the chapter considered the developer's role in regard to DLC and modification, as the construction of the passive narratives of *Fallout 3*, *Fallout: New Vegas* and *Fallout 4* can house DLC and modifications provided by developers and fans. This exploration found that the establishment of a sound passive narrative supported such DLC, which acted as catalysts to the pre-existing narrative.

5.2 Hindsight

Throughout the development of this thesis there has always been a tense relationship between text and player. Text, in this case can encompass the product itself, however further consideration of the role of the individual developers, such as Tim Cain and Leonard Boyarsky; the development companies, Interplay Entertainment and Bethesda Softworks; and the entertainment companies that

own them in turn, Zenimax Media; is worth discussing as entities who all have a claim of authorship⁴⁹ in the creation and facilitation of the *Fallout* franchise. Contrasting this is the role of players in these texts, as players incorporate both the intended narrative of each of the *Fallout* videogames, as well as their own interests, such as modding, in the way they play and access the text. Although not discussed greatly in this thesis, if given an opportunity to start afresh, a further focus would be given to analysing the narrative control or authorship that is shared between players and developers.

As alluded to in the previous chapter the role that players encompass in relation to videogames has steadily grown from a consumer, to a developer of content that exists in conjunction with authored 'official' content provided by Bethesda Studios. This new and constantly evolving relationship between the 'authors' of *Fallout* and the 'players' of *Fallout* complicates the notion of narrative structures. The question of "How much emphasis should be placed on the 'official' authorship of the *Fallout* franchise, when a large quantity of content is actually provided by players in the form of mods, fan fiction, fan art, and other productions?" is one that pushes this thesis into discussions of creative control and the shifting notion of authorship that has occurred due to an increasingly digital world. Such developments can be facilitated by the notion of narrative structures, but in order to implement such fan work within 'official' content, a discussion of authorship must occur.

To this end, if more time and space were available the effects and considerations of fan content onto these narrative structures would be explored alongside previous examples of videogame fans providing user generated content to role playing games, such as *Neverwinter Nights*. For *Neverwinter Nights* the development of fan content which could be played through the game engine, and the monetisation of that content by Bioware is similar to the attempts by Bethesda Studios to both monetise and legitimise fan content within their products.

Accompanying this would be a more nuanced discussion of the role that different development teams had in the development of DLC for the later *Fallout* videogames. In *Fallout 3* and *Fallout: New Vegas* the presentation of DLC as further 'official' content appears strange, since different developers were involved in the creation of this content. This DLC development as opposed to fan content, provides nuance in discussions about who controls the narrative between developers and players.

⁴⁹ For more on authorship look to Gerard Genette's discussion of author and officiousness in relation to paratext (1997, pp. 9-11; 196-293). This is further expanded on in my own work on paratext (Dunne, 2016b, p. 277-278).

The further invitation for players to become involved in modding through the construction of towns in *Fallout 4*'s main quest also suggests an official campaign from developers to push modding options to players. As there is no way to progress the main quest in *Fallout 4* other than to participate in the use of the Workshop function. This Workshop function is a simplistic version of the modding tools available in the Creation Suite. From this case study a further exploration of how players are incentivised to produce content can be seen.

Discussion of the relationship between players and developers in producing narrative content is something which I believe is the next step in designing meaningful, reactive, narratives that, much like *Fallout* originally did with its global variables, challenge the status quo of storytelling.

5.3 Further Study

Aside from this question of authorship between players and developers, this research has identified several opportunities for further study, which extend and build upon the work I have provided.

Developers and the player community were mentioned throughout the thesis, in the active narrative section and comparative chapters. Following the ongoing shift within videogames from authored stories towards player customisability (MacCallum-Stewart & Parsler, 2008, pp. 229-234), and the use of fanbases as resources (Jenkins, 2006, pp. 178-190), there is potential for further work based on the influences of such community groups on the *Fallout* franchise. Instead of the videogame text being the primary means of providing a response to the player, the community is now used to supplement that text.⁵⁰ There has been some exploration of the player community's involvement in *Fallout 4*, providing the reaction to player action that is otherwise lacking from the text. However, there is more to explore than can be adequately examined by a chapter. If further study focused on the narrative impact, it would examine the impact of player activity on narrative on a wider scale, such as within *Life is Strange* or Telltale adventure games such as *The Walking Dead: Season 1*.

Modding, which is certainly part of community involvement, should also be explored as a separate aspect of further study. Chapter 4 in part examined modding, in its discussion of the ability of modded content in *Fallout 3*, *Fallout: New Vegas* and *Fallout 4* to slot within the main quest cardinal functions. However, particular modifications, and their effects on the narrative structure of Bethesda *Fallout* videogames, have not been examined. Previous studies have investigated the impact of player action on different videogames, including Mia Consalvo's *Cheating* (2009) and Marcus Carter and Martin Gibb's "eSports in *EVE Online*" (2013). Both studies explore how counter-

⁵⁰ See the work of Marcus Carter "Avatars, Characters, players and users" (2012), Henry Jenkins *Confronting the challenges of participatory culture* (2009) and Mia Consalvo "Using your friends" (2011), for more detailed analysis of the community and their navigation of different games.

practice can inform how communities improve and alter gameplay within videogames. Taking this research and applying a focus on narrative contributions would expand understandings of videogame texts beyond just being reactive, but rather as texts that can be contributed to and shared by a community.

To extend this notion to the *Fallout* series such discussion would regard the monetisation of modifications through Bethesda Softworks (Creation Suite currently, and Steam Workshop previously with *Skyrim* in 2011), the alteration of Bethesda Game Studios' previous games (*Morrowind*, *Oblivion*, *Skyrim*) and the development of Bethesda Softworks to become a game producer (producing *Dishonoured*, and *Wolfenstein: The New Order*). Each of these developments are part of the complex relationship of developers to a changing player-base. Any one of these observations about the company and the directions it has taken, the increased outreach of their products (available on all major consoles [Xbox One, Nintendo Switch, Playstation 4, and PC] in 2017), presents an increased push not so much for narrative structures and active narratives to take place, but rather a saturation of a marketplace. This notion is similar to that of Henry Jenkins, Sam Ford and Joshua Green's *Spreadable media* (2013), in that the goal for Bethesda is to have quality products that lend themselves to a wide distribution of consoles and players. As of December 2017, *Skyrim* and *Doom* are available on the Nintendo Switch, while *Fallout 4* has been ported to VR platforms. From this saturation, and the ability for players to create modifications, or new content for other players the system is effectively the creation of an operating system on which players can load up each other's modifications and test it out within their own games. Such study, while interesting is only one side of the research that can be developed as a result of focusing on developer and player relationships.

Returning to a textual analysis perspective, there is fertile ground for further analysis of narrative structures, particularly in the realm of other genres. Following the analysis of nodal side quests within the *Fallout* series, such quests in other genres – particularly roguelikes, such as *FTL*, *Rogue Legacy*, *Enter the Gungeon*, or larger strategy videogames, such as Paradox Interactive's *Stellaris*, *Crusader Kings II* and *Europa Universalis IV* – could be analysed to see how each of these sequences contributes to videogames that are not often thought of as narrative-rich. Examining the structure of these genres with respect to Barthesian analysis of narrative structures may offer new insight into how narrative operates in videogames other than role-playing videogames.

Alternatively, examining videogames with a tighter focus on narrative, such as single-player shooter or adventure videogames, presents another direction in which to explore narrative structures and the possible reactions of the text, as this type of textual analysis would focus on the reactivity of

the text and its increased complexity. In particular, there is scope for analysis of videogames which style themselves as making a lot of choice available to the player. Examples of such videogames are *The Last Express*, *The Stanley Parable* and *Consortium*.

Further study which focuses on the player's meaningful experiences of the *Fallout* series would be beneficial. In particular identifying how random encounters are interpreted by players as part of the narrative experience rather than a randomised event. This extends upon Tim Cain's sentiment that *Fallout* 'was a device for telling stories,' in that it looks to the facilitation of these player stories through all of the *Fallout* franchise. Such work could be supported through Stephanie Jennings' "Passion as Method" (2015) analysis of subjectivity in videogames, or Steve Swink's *Game Feel* (2009) which focuses on the qualitative experience of a game, that a game experience can be understood through an individual's play. Both of these scholars would provide a further method to understand how the experience of play changes in each of the *Fallout* videogames.

Lastly, *The Witcher 2: Assassins of Kings* can be examined as another exploration of narrative within role-playing games, as its structure in comparison to the *Fallout* franchise provides a very broad cardinal function in its design. In *The Witcher 2: Assassins of Kings*, the player can choose another path that leads them along a distinctive narrative sequence that effectively closes them off from half of the videogame. No matter what, the player still is able to progress through the videogame, but its presentation of narrative seems to indicate two narratives that begin the same way, rather than the same series of cardinal functions through which the player will always progress. In analysing such a game, the application of Barthes' narrative structures would have to incorporate a very broad sort of cardinal function, as the two halves of the videogame do correspond to an unalterable sequence of events, and the explanation of catalysts would have to be expanded. Analysing this text would provide further understanding of how catalysts are arranged in a broader range of role-playing videogames.

5.4 Final Words

The development of the *Fallout* franchise has altered the way narrative operates, enabling for different reactive stories to be told through the implementation of different development teams, and through the involvement of *Fallout*'s fanbase. This thesis has provided a lens through which these *Fallout* videogames can be understood as passive texts in how they are structured, and active in the afforded methods with which the player can alter the narrative of the videogame.

The evolving design of the *Fallout* franchise reveals that during the development of each of these videogames, there was a changing focus: a developer led adventure where players can go off and experiment with their choices, or an open world three-dimensional world which the players find and

make their own adventure. Each *Fallout* game make use of narrative structures to emphasise their own strengths whether it be player-led activity, or the variations that can occur in side quests. Each *Fallout* videogame provides a reaction from what the player does into its narrative, from the options identified through *Fallout 1*'s epilogue system, to the playable factional main quests in *Fallout 4*. Understanding how these reactive elements operate, and how they fit within the cardinal functions of the main quest allows for an understanding of the narrative complexities involved in designing a videogame narrative.

It is my hope that I have provided an understanding that videogame narratives are both set and mutable, that the analysis provided here encourages developers and consumers of videogames to consider the narrative possibilities in their design of videogames, and the unique narratives they can tell.

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7 Ludography

The following ludography is presented in the format:

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8 Appendices

8.1 Timothy Cain

Daniel Dunne: So first of all, easy question, explain your role within the development of *Fallout 1* such as a producer, project manager, a programmer, designer, and how these roles contribute to the narrative of *Fallout*. I know it's a big question because you've had so many different roles, but how is it that they all combined to form the narrative idea for *Fallout*?

Timothy Cain: Well kind of how roles happened was I would just make the engine in my spare time, so that's why I was the lead programmer. Because it turned out to be my engine. However at night I would run GURPS and DnD campaigns and I'd run different groups through it. I'd make one little module and I'd run different groups through it to see how they'd play. And it was remarkable. We played a GURPS dungeon it'd only have 5 rooms and I'd play three different groups through it and have three completely different outcomes. And so we'd all sit and talk about that afterwards and that was probably the genesis of 'Hey how can we make one game that people can play in lots of different ways and outcomes.'

So that's where it actually started. One of the guys that played with me Chris Taylor became the designer of *Fallout* and Leonard Boyarsky who played another session became the lead artist - so we used to talk about that a lot. Because it was just me for a while I also was doing design. It [*Fallout*] was supposed to be produced by another producer Tom Becker who'd done previous games of mine at Interplay, but he had 22 different games he was working on and he didn't have a time. So, the executive produce told me 'Just go ahead and be your own producer, just send me weekly product reports and I'll just call you a producer.'

So, it was weird because I was all these roles at once, just that Interplay kind of let me do it, but it also meant that except for art, because I also picked out most of the music for *Fallout* because I really was into ambient music. I was really involved with everything except the art – because I'm horrible at art, I'm bad at art. So those roles all combined to mean I would go into meetings, let's say I would go into quest design meeting and I'd go in there with my design hat on but I'd also say things like you know I can give you guys the global variables to read between quests so that any quest can access its own variable – so you can have sidequest A influence sidequest B without any extra programming help. And I'd explain to them how they could do it you know it'd be like 'here's a variable that's set to zero. If you set it to one it meant that you'd saved Tandi, if it was set to two it meant you killed her, if it was set to three you rescued her by paying money.' So basically, I showed them how to set the state and then they'd repeat those states back later and have other quests get influenced by them. Even though it seemed like a minor side quest they loved this idea of monitoring everything the player did. And I encouraged them to do so, I encouraged them by actually providing the programming tools, you know, to do so.

And then they never did find another producer so I just was the producer on it. And the whole thing kind of came together that way. We never had a plan. We just, we were ignored for about, I'd say for the three and a half years to make that game we were ignored for two of them, and because of that we just did what we thought made sense narratively. And we didn't really have anyone, I mean a lot of the narrative was written by some of the artists, they were just good at it.

D: So with that did you have a general overview of the main areas, such as finding the Waterchip? And then you had different locations mapped out? Or were the side quests their own little thing that you put them into different areas? Like how did that come about?

T: The first person who came up with it, the lead designer was named Scott Campbell. And Scott and I talked a lot and then Scott went and wrote, what I would just call, the main story. So it was you, it was Vault 13, Vault 11, Jason, Junktown, the Hub, the Glow, and the Church of the Apocalypse, the Master, oh and the military base. We started putting together all those areas and other designers came on board and started putting in side quests. They would need side quests to expand other maps, so a lot of other maps came about because we needed areas to put inside new quests. And then we'd extend the story by tangentially going through it.

I also love the idea of random encounters. So when you were going over the world map, I would have them drop into random encounters and ask them [developers] to make random encounters for me to you know spin off. The Random encounters were probably one of the few things that weren't connected, to just about anything else. They truly were designed to be stand alone.

Almost everything else whether it was a main story quest or a side quest, set at least one global variable state that at least one other place checked. We felt we wanted it there to make the world feel connected. And one of our rules. I think I gave them two big rules

T: One of them was I wanted the player's choices to have consequences. They don't have to be major. I'm not talking about 'you stole a dinner plate so YOU WILL DIE.' It was more like 'look if you start stealing stuff I want there to be someone who call you out on it someone who notices.' If you wear a certain armour I want that to sometimes matter. And that actually manifested itself in one of the ways you can rescue Tandi when she's kidnapped. If you wear a raider outfit and your luck is high enough you can grab her and walk out. There's no dialogue skills required. So somebody said 'Oh, Does that count as a speech path' and I'm like 'Well there's no combat no dialogue, and there's no stealth' it just... was what it was a different way of solving it. And then somebody else who really loved *Mad Max* made the dog follow you if you were wearing the *Mad Max* leather jacket. And that's it.

So we loved putting in things like that. We weren't sure if people would see or notice them. We were especially positive that no one playthrough would uncover all of them. We put in so many, we said 'People who are going to be playing the game are going to notice the game reacting to them, and they're going to get excited about it.' And then at work people they would replay make a totally different character, and they'd replay. And when they saw there were other things that were suddenly possible to do or people were talking to them differently it got them very excited. I remember people would tell us afterwards, a few months after it shipped, how it felt like they were playing a tabletop game and the DM [dungeon master] was noticing what they were doing in having the NPCs react, and that's exactly what we wanted.

D: So was that largely just influenced from your GURPS groups, and your DnD group? Or was that from other games as well?

T: Well we had people who would play and we'd all... Well Interplay was a weird environment in the 90s because we never went home. (Laughs). We would work an 8 or 10 hour day and then you'd just hang out playing videogames, or board games or card games. And so every night there was something new. I remember that one night I played... an *Earthdawn* game, I played *Paranoia*, I played *Call of Chuthul*, I played *Champions*. I mean we had so many different games going on and they all influenced us.

Like I think *Champions* was the one that made me go 'I need to make an RPG that has luck in it.' Because *Champions* had levels of luck that you could buy for your character. So I loved that idea that your character was innately lucky.

So yeah we were influenced by tons of paper and pencil RPGS that were out at that time. And also a lot of other RPGS like the *Ultima* series, the *Wizard* series, games like that. And of course *Wasteland*. So we were influenced.

D: So going back to what you said about your three main conditions for getting through the main quest, so stealth, intelligence and (T: Dialogue) dialogue yeah (T: and combat) oh okay. So what helped you create those? Were those just the easiest things to factor for? Or was there anything in contention with that?

T: I think what it was... Nowadays they call them the 'pillars of the game' or the, when you're making a game 'specification.' Back then we didn't have a 'game specification' but what we had noticed was, we were worried because we were classless. We weren't like DnD, where DnD says I'm playing a thief at the time you start. So you [the player] didn't pick a class, we felt we should impose a sort of encouragement to 'Hey here's a way you can fight your way through' 'here's a way you can sneak your way through,' and the reason I wanted a talk your way through is, since we had speech as a skill - I wanted to encourage a pacifist playthrough. Which was really actually pretty hard for us to do, it was hard for us to say 'hey there's a way to play this game where you never kill anyone.' What we fell upon well 'maybe there's a way to play the game where I never have to combat.' The reason we wanted that was ... it kind of let you imagine a role for your character even though you had no class. I think that came out of when we played GURPS, because GURPS was also classless. And people who were really into DnD when they first played GURPS they weren't sure what to do. They were like 'Should I take combat skills, should I take stealth skills, should I take both' and I'm like 'You can do whatever you want.'

And I played with this friend of mine, and she made a character whose only skills were, all her skillpoints were in savoir faire (which is basically the art of being able to talk really nicely as a really classy person). And then they went into a dungeon and got attacked by monsters, and she was like 'how does my savoir faire help me now and I went 'It doesn't.' And she died, her character died.

And we talked about that for a long time afterwards. She's like 'why would you let me make a character that has savoir faire and not put in a way for me to use savoir faire.' And I was like 'okay'

And that's how we arrived at our third rule 'There was a rule in GURPS You could not make a character who couldn't finish the game.' That didn't mean it was easy, it just meant it was possible. What that meant was every main story quest had to be, we had to examine it to make sure that any kind of character could do it. So, if you weren't that good at fighting, if you were not that good at stealth, well then you were going to talk your way past it, what if you didn't put many points into dialogue?

Eventually we made these models on - I don't think we had excel - I think we used 'One, Two, Three' to prove that you had to put your points somewhere. So we figured what the minimum value of the skills had to be as you played through the game so we could set minimum values like this is how high your dialogue skills should be to talk your way past this guy. We also put some reverse ones in, like low intelligence dialogue tests. So you could get by this person if you were really stupid, but not if you were smart. And that's how we covered ourselves to make sure that if you made a one intelligence person that he could occasionally do a dialogue check.

D: Just to make things easier.

T: Yeah it was a lot of fun because we had fun writing those dialogues.

D: So I guess with that was there a danger of making it too easy. Well not too easy, but sacrificing some aspects of gameplay or story just to get the player through. Was that ever a challenge?

T: Yeah well uh... Well it's funny because people thought *Fallout* was really hard. And I think it's because... The way it's designed we don't tell you these things are available. Like we don't say. When you play the raider camp, you're never told 'you might want to try putting on the raider jacket but your luck has to be high enough.' You can just try it, and if your luck isn't high enough they see and they go 'hey you're not a member of our clan' and shoot. So because of that I don't think we were ever in any danger of making the game too easy.

But at the same time there was a vice president at Interplay Bill Adam, and he gave me some of the best advice I ever got for my career. He said 'If you're ever making a game and you're worried about making it too easy or too hard, always make it too easy.' He said 'the reason is if you make it too hard, the player will blame you. If you make it too easy the player will compliment themselves' - 'Look how smart I am, look at this wonderful idea I had of sneaking by this stupid person.'

And he's right, people were playing *Fallout* – and even though we made some of the alternative paths super obvious, there was almost neon sign saying sneak in through this grate – people were like I figured out how to sneak into the Glow and nobody got me. And I was like 'Oh yeah of course there was a massive grate right behind him'. But he's right it's fun and it's fun to play games like that and it's fun to feel like you're being heroic.

D: I guess it's more the experience rather than the challenge that the player has to defeat.

T: Yeah and that's what we noticed when people talked about *Fallout*, there were stories. Like when people talked about playing *Ultima* it was like 'Oh my god that Dragon was almost impossible to kill,' or 'Oh my god it took me forever to figure out the moon stone puzzle.'

When people talked about *Fallout* it was like: 'Oh my god I was walking through Junktown and this dude tried to offer me an Iguana-on a-stick and I found out it was made from people, SO I KILLED HIM.' And you're like: 'That's a good story. What's that got to do with *Fallout*? What's that to do with finding the Waterchip?' 'Oh that's just something that happened.' People like telling stories and *Fallout* really gave them a lot of material for telling stories to their friends.'

D: I guess that reflects back on your GURPS experiences in terms of co-creating stories, and working with the player to develop their own experiences. (T: Right).

D: So you talked about the experience of *Fallout*, in the GDC 2012 interview, where you talked about the box art, the manual, the hard looking UI. How did that idea come about?

T: So, we were putting the game together. And it was time to make the cover art and they had outsourced the cover art to someone we didn't like. So Leonard said Let me try painting something, and he said I want to paint it so that it looks like some object that you'd find in the *Fallout* universe. So, he made it look like a lunch box I don't know if that ever came across but the *Fallout 1* box is supposed to look like a kid's lunchbox.

When Chris Taylor the lead designer heard that he said I have to write the manual, I want to make it funny and I want it to have all our dark humour in it. And I don't know if it was Chris' idea or one of the other designers. But they said why don't you write it as if Vault Tec the company is writing this for someone who is going to play a simulation of being in a post-apocalyptic universe. And preceded by a bunch of ads for Vault tech products. And he [Chris] was like 'oh that's great.' And he went away and he wrote this thing and he patterned it off, we found some old manual that talked about,

some army manual, about how to survive after a war, so we patterned it after that. Our artist the one who – like Leonard invented Vault boy the little stick figure - and another artist named George Almond, was the one who worked out how each way it should be. But T-Ray Isaac on *Fallout 1* was a guy who just drew hundreds of these. And so, we said ‘Hey can you draw some ads with Vault-Tec boy,’ or just like some side notes like ‘hey beware of radiation’ and he’s reaching in and his arms are dissolving, or ‘don’t forget to rub the radiation off’ and he’s having a shower. And he just did tons of these for us.

And even though it was supposed to be a manual of like ‘this is how to survive this horrific post-apocalyptic landscape,’ it was funny. And it came across as a little self-serving for Vault-Tec because it was full of its ads and other products you could buy. Which was so *Fallout*.

So once that happened we were like oh we should think of this whole thing as product and experience. We wanted people to... because back then it came on one CD full of 700mb which back then was a lot, so it took a long time to install. So, we were like ‘We want them to have a manual and a box cover that’s full of fun things to look at and read.’ And I think we accomplished that.

D: So with that as well, and don’t worry if you can’t answer this question, I think it positions the player as kind of a Vault-Tec... a Vault dweller kind of person who’s playing a simulation. Was that also intentional, in positioning the player in the same way that they position the character the game?

Well Chris put that in because he wanted some reason for Vault-Tec to have made such a manual. Back then there was no intention to... We weren’t planning for the game to be something that you were playing as a simulation. No, we weren’t breaking any fourth walls. It was just, ‘Why would they make this manual?’ And it’s like they’re trying to sell the government and also people on buying Vaults – that’s what they built. And so they told you ‘Hey just imagine you were playing a simulation here are things you have to do.’ And we were imagining they may have built a simulation for people to play that may be looked a little like *Fallout*. But we never thought it through that deeply.

D: Oh no no no. It’s just a nice kind of linking mechanism. But also, the fact that you’re sitting at your computer playing *Fallout* and then also the manual kind of addresses that is...cool.

T: Honestly when we thought of that we were ‘Tee-hee that’s going to be funny it’s just going to blow their minds’ But we didn’t ... you have to remember we were all in our 20s and we were just like ‘hee hee this is funny’ and nobody is telling us not to do it, so we’ll do it. Oh sorry you’re probably in your 20s I don’t mean to be bad about 20 year olds. (D: Yeah). We were just wacky unsupervised adult children.

D: Nah that’s great, I mean you made a great game. So with that as well with the UI of the game, so this is probably getting a bit technical, well not technical but... with the menu systems, the introduction screen, the in-game system, the V.A.T.S. system, that kind of stuff – was that designed to invoke a particular feeling, did you go through different design iterations...?

T: Yeah for the longest time we had a really ugly interface, very generic, very plain. And Leonard, I think you’re interviewing Leonard, Leonard can talk at length about this. He was the one who came up with the idea, even though *Fallout* is set in the future they had never ever gotten out of the cold war era in terms of ideology but also in terms of basic technology. Even though we had robots, they were built out of wires and gears. So when he looked at the interface he said ‘I want the interface to look like old fashioned switches and dials.’ He wanted exposed vacuum tubes he wanted wires and screws to be shown, he wanted paint to be scrapped off in some areas. I thought it was cool,

because I thought it just evoked this sense of the only thing that survived the war was the most rugged technology. But then we made this whole science up, I think it was my idea, I said 'hey what if we just acted like the transistor never been invented.' And that's why everything's got vacuum tubes.

And from then everything just took off and you know they... we had... they had suggested that we have some robots that looked like the terminator so we got rid of that. And then everything else became old 50s style robots, what the 50s thought monsters would be. So, we had giant scorpions because of course you would, you know radiation on a scorpion is going to make it grow really large and eat people.

So, we went kind of in that direction and I think Leonard's idea for the interface I think that came first (knocks on table). But what's great is it meant the interface, because you saw it all the time, it'd make everything gel and hold together. And it'd reinforce this idea you're in the future but your technology is not ultra tech, it's like low high tech.

D: yeah which kind of reflects back on the experience of the box-art and the manual, and everything just framing it for the player in the game. I'll get back to the other questions.

So you talk about this in the GDC 2012 presentation that you gave. The inclusion of the timer on the Waterchip, was that due to giving a sense of agency, no urgency to the quest or was that just so that the player had a threat that was kind of tangible.

T: Well that was one of the biggest long running arguments among the development team. There were a few people who felt that the timer needed to be there. They wanted to give a sense of urgency. They didn't... They felt the story didn't work if the player didn't think his Vault would die. Cause they said 'What if we tell them [the player] to get the waterchip and they never do it? What if they wander the wasteland for years and never get the Waterchip. Are people just back in the Vault going 'Hey we're thirsty?'' So I was convinced that the timer was needed, even though, even then if you would go on forums online, when the internet was at its early stages. But there were game forums, webgates@Rp, was one of the forums. And people said how they didn't like timed quests. I would bring it up a lot, 'hey I think we should do this.' And we shipped with it even though QA didn't like it either. QA was like 'we don't like it.' So the consensus was, or the compromise [was] the lead designer made it a really long timer, he actually lengthened it from what it originally was. And then Leonard made some cutscenes that would happen that would reinforce 'we're running out of water' and I needed two or three of those before they actually died. You could also get water traders from the Hub to take water to the Vault, but if you did that it meant the mutants would find it faster. Anyway because we had all those global variables. (D: Yeah exactly)

It shipped, we had some bugs to fix, yeah we had some bugs, but a huge complaint, a huge, was about that timer. And so finally I just said that 'I'm making,' I put on my producer hat, and said that 'I'm making a producer level decision that I'm overriding everybody and taking the timer off as a patch.' And so I think the first patch in addition to fixing bugs removed the timer. And then we just said it was a mistake.

So what happens now, they tell you they're running out of water you still get the cutscenes but after the last one they say 'The water's really low we're going to die any day now' but then they didn't die.

D: That's fair enough, this is more a broad question, but would you ever go back to that idea of urgency. Or something affecting the player urging them on.

T: Like what? I'm—

D: Oh, would you ever go back to something not necessarily timed quest, but like a, something that's pressuring the player to progress. Because I'm trying to think of something else that would do that...

T: I don't think I'd go back to time, because even now as a game player I don't like thinking 'If I don't do the quest the right away I'm going to have problems.' But I do like consequence for actions. So probably what I would do, I would say.... if you don't have the water by this date, some of them die, if you don't get them water after this date, certain supplies wouldn't be available anymore. If you don't get them water after this date, they don't really like you, you know their reactions to you would be negative. I'd put a string of those far in the future. It's not so much that that you've hit this failure point. What I've learnt is that people don't really like black and white, they like grey, they don't like cut offs they like slopes. So I would progressively punish them so eventually everybody would reach the point where they don't want everyone in the Vault to hate me so I'm going to get the Waterchip for them. But the people of the Vault are pretty confident. So I probably would do something like that instead of this hard and fast 180 days then game over.

26.45 D: No no fair enough. With the design of the character skills, and I guess player abilities. How much of that was early game engine design, that players would have access to skills, or have access to combat, or have access to dialogue and how much of that was a product of the quest, like... I'm trying to think of an example... I think there's a bunch of science and mechanical quests that rely on those skills. Did the narrative design push that forward or did the game engine produce that?

T: Well since we were originally using GURPS, GURPS had a lot of skills like that in it. Well what happened was we were really busy trying to make enough quests that were connected with these hundred GURPS skills. When initial owner Stephen Jackson didn't like the levels of violence in the game he also didn't like the Vault Boy. He started requesting a lot of changes, and I was worried because we were only six months away from shipping. And I was like These changes are going to push us forward a year at least. So he finally, I didn't make some of them, in fact I didn't make a lot of them, so then he ordered me to. And he has his own take on this. he ordered me to, I had to pop it up to a level above me, I had to give it to my boss, who ended up giving it up to the owner of interplay and their lawyer. So now it was completely out of my hands. All that happened was they argued about it for weeks, one day the president came in, and I was sitting in my office with the lead designer. He said 'How long would it take you to design a new system' And he and I put our heads together, and said Hold on... maybe a couple of weeks. Because we were stupid and naïve and we didn't realise. And he said okay, next thing we knew we weren't a GURPS game, he told the guy Fallout's not a GURPS game.

So what we did was, Chris came up with the minimal number of skills that, because remember we had all these GURPS skill a hundred of them, he said we've got a lot going on, so every different science skill, chemistry, physics, biology just became SCIENCE which meant 'OHH' we didn't have to have five quests for chemistry, five quests for biology and five quests for physics, we just had to say we can take the ones we had and just reconnect them up to science. So that really encouraged us because suddenly this was doable.

Chris came up with 6 stats, he didn't put in Luck, so I'm like I want luck in there. I thought it spelt ASCLIEP someone else told me to make it SPECIAL. So we looked at the skill list and we were done. We showed it to Brian Fargo the president, and he said I really love it the only problem is I don't think you've got enough things to spend points on. So Chris said hey we've got all these advantages in GURPS we can treat them like perks and instead of you buying them in the character creation why

don't you buy them every two or three levels. And we were all like 'yeah let's do it,' since we had it already. So we re-bundled them in different packets so they weren't GURPS advantages they were repackaged as perks that were tied in with *Fallout* content. And that was the Perks system. And I think it's funny that was kind of Fargo saying I like what you got but I want something else to buy and that turned into the perks system. And now you see that in the 3rd edition DnD, feats, they said that was due to *Fallout*'s perks. *Fallout 3* got rid of traits and *Fallout 4* got rid of skills, so now all you really are is perks. Yeah you get some stats at the beginning but those are really perks. So *Fallouts* really turned into a game of perks, and that's all because of really an afterthought of *Fallout*.

D: So you said that a lot of the quests were designed with the skill set from GURPS originally (T: Yes) so did you go through a list, all the skills of GURPS, okay we've got acrobatics as an example, and put that in a quest, just go through the list there?

T: Well If it worked as a combat thing like acrobatics did acrobatics was ... (D: Yeah). We said we would redo combat. And the way that worked is I had functions that provided for example if I asked what's my chance of hit, what's my chance of missing, that's where acrobatics factored in. So we didn't have to worry about that anymore. Anything that was combat related we made our own new combat model which was much simpler. But it could still answer the same questions what's the chance of me hitting him, what's the chance of critical failure, critical success, those things. So we made our whole new combat system so that got rid of a lot of skills there, a lot of GURPS skills were combat.

Then the other ones they had a lot of different dialogue skills, persuasion, lie, intimidation, *sauvoir Faire*, and all that. We just had speech.

And then they had a whole lot of ... perks for healing. So we said first aid and doctor. We almost reduced it to one. And we said first aid for simple stuff and doctor for broken bones and things like that. So what we ended up doing was collapsing anywhere between 2 to 10 GURPS skills into one. And then we made our own, we threw away all the GURPS combat related skills, and made our own combat system and tied all those in to the same code API that I had written. And that's how we got that out in two weeks. 2 weeks of working 12 to 14 hours. But we did it.

D: And made a good game. So with the you touched on this before, with the random encounters, why did you include them in the game, not that they're bad, but just in terms of how did you see them as servicing the player's experience. Was it so that they could have a bit of randomisation so they could say I had a weird experience with Doctor Who, or was it more I needed more xp (experience) to level up.

T: I think the goals for random encounters were several. One the wasteland was going to always be dangerous, so you could never clear it out. So whenever you went out there was always the chance that you'd run into something. We also wanted special encounters. Like one offs, that could only occur if you were lucky. Like some of those, like the doctor who one you had to have a minimum luck to see. There's a crashed saucer, a crashed alien spacecraft, that a lot of people don't see, and the reason they don't see it is because you would need a really high luck skill to even see it. Having a high luck didn't guarantee you'd see it. Having a high luck only allowed you to be able to see it. But if it wasn't rolled on the random chart you'd still never see it.

So I wanted that I wanted that element of... if you replayed the game with a different character you'd see different encounters, if you took longer to play the game you wouldn't see the same encounters over and over again. So all of that you know when we were talking, when I was saying here are my goals I want the overland travel to feel, random, I want it to feel dangerous and I want it

to feel different based on the characters we have –all that got rolled into the random encounter system. I said okay, 'It looked at your attributes' something which had never been done before. Because we'd have encounters if you robbed a... robbed a bank... you rob something in the Hub. One of the encounters would happen where people would show up going 'You're the robbers, we're going for bounty.' And then they would attack you. That would never show up if you never robbed them. So it added to the reactivity that the world had to your behaviour. It was a real simple system to code wise. Wow we ended up really putting in a lot of stuff into it to ensure it met all those different goals.

D: And also with that reactivity, the epilogue system added a lot to the player's decisions throughout the game, and caused a lot of players to replay through the game who, no how did this epilogue system develop. Was that always going to be in the game, or was it kind of a 'we need reactivity' how best can we show this?

T: Well when we were making the game, and I was watching the goal variables that we were keeping track of especially ones for the main story quest. I said hey when you get to the end of the game there should be somebody or something should summarise what you've done. Because we weren't going to let you play past the end of the game. So I said maybe we should say what happens to some of these places long term so that people can see that their choices matter. Like you leave Junktown maybe you didn't do anything or maybe you go Killian, maybe you go Gizmo, or maybe you go kill both of them. People can leave Junktown and don't go back. We should have something when the game is over saying by the way this is what happened to Junktown because of what you did. It was kind of a way of reinforcing game reactivity, but also making sure that people did find out that there are consequences for their actions. And at first everybody freaked out because they thought I'd meant live? But then I said no there's just static screens and we'd have a narrator.

It did mean there were a lot more lines for Ron Pearlman to say, but he was a really good sport. And you know, we gave him these lines that to him meant nothing, he's like I don't understand what these lines mean who is the Master, and we'd go don't worry just read the lines. And it was fun, I mean when we'd put it altogether at the end and we found out that there were people in QA who were coming in on the weekend to play the game because they wanted to see if they could get a different ending. And some of them were coming in and trying to play as a better person as better characters because they found out the game was tracking all the horrific stuff they were doing, and then throwing it back to them at the end.

Like Shady Sands was wiped out, the Hub was wiped out, all the ghouls in the Necropolis died, because of you. And they were like 'I didn't think this would be thrown back in my face,' so they wanted to replay and go 'I'm going to try and be good this time, I want to try to be a good person,' just to see what the game would tell them at the end. And I love that incentive of being good, not because someone is telling you, like in *Ultima* they tell you 'be a good person, be the avatar.' In *Fallout* it's just like 'here's the person you were live with it.' And people wanted to replay it, it made the story a more personal ending to them.

D: But also, I guess in making that epilogue system you had to have definitive endings, or definitive consequences. So did you see that as a hindrance to the players agency, for example the player might choose to kill Gizmo, or kill everyone in Junktown because they had a perceived slight against Junktown or the Hub, or even shady sands.

T: Yeah we'd talk about it. Somebody would say 'I didn't mean to kill people in Junktown.' When you walk up Junktown there are these two guards that tell you have to holster your weapon. One person

said 'Oh I didn't do it fast enough, so the guards attacked me so I killed them, then I walked into Junktown and everyone's attacked me so I just blasted away.' The slide doesn't say, the slide for Junktown never says 'You horrible person' it just says because everybody in Junktown died was killed, Junktown was eventually covered in sand and forgotten. And it's like I don't care why you did it, but this is the effect of what you did, you have to decide if that means you're a bad person or not.

Like rescuing Tandi, if you never rescue Tandi you never get the slide of her becoming the president of the NCR. Well maybe you don't care. But what we found out is that people would say 'Shady Sands made NCR.' And they'd pipe up and say 'Yeah and Tandi was the president' And they're like 'Oh that stupid girl that got kidnapped? I never went and got her.' 'Well she's not the president in your [one].' Is that a bad ending? Does that mean you're a bad person? No. But a lot of people felt guilty. Existentially guilty and then go back and replay the game and say I want to rescue her. Even though it was hard to rescue her because you had to fight all the raiders. But we deliberately tried to steer clear of being moralistic. Anything that was moral was being read in by people who were watching the slides and thinking they were being called out for being bad, when they were just being told look at the horrible things that have happened. Though maybe next time that won't happen.

D: In the development of Fallout were the main quests constructed and then you went oh we need consequences for these main quest, or was it in conjunction with each other. So Shady Sands would have Tandi getting kidnapped and depending on if you rescued her that would change something else down the lines, or was it that Shady Sands was always going to turn into the NCR?

T: I think what happened, because Tandi wasn't originally kidnapped. We made the main story arc and it went through all the main areas and then I'd made sure that all of them would have all three ways of playing through it. But then somebody would say we've laid out the entirety of Shady Sands we should have more quests here. So what would tend to happen was that they'd add a few more people, they'd add a few more buildings. it was very easy Back then to change a level. They added more stuff to do side quests and the nice thing about side quests is I didn't make..., the rule for side quests was that you didn't have to have all three ways of playing them there just had to be enough side quests in an area for somebody who was playing dialogue or stealth. But any particular side quest... you could put a side quest that said you had to fight through this with no dialogue options. However they'd love to challenge themselves and say I'm going to try to make a side quests with lots of ways, but if they couldn't do it, it didn't matter. So that made a lot of the areas fleshed out, a few more areas got made just to support side quests. A deathclaw cave was put into an area just to support the fact that you needed to hunt down a deathclaw. It wasn't required for the main story arc but it was fairly easy to make maps that supported that. And that just kind of grew.

So we thought of it as here's the skeleton of the main story arc and the player only has to do those. But then we grew a lot of side quests off so it became, it looked like, if you were trying to draw the side quests, it looked like a branching tree limb. And so that's kind of how that grew out.

D: Yeah, and so from that. I'm not sure if you'd say this about the side quests, or certain locations, such as the slide with the raiders being wiped out, because the player doesn't have to do that. Did you see that as making the raiders more important to the main story line, or was that just a statement you've done this in a side quest, we're going to bring it back up in the epilogue you, it has no bearing on the main storyline it's just here to remind you of what you've done.

T: Originally, we were just going to do slides based on the main story arc because we had enough alternates. But because of the way we did them, it was very easy to make a slide. And having the narrator, having him read extra lines, when you get him for four hours, and we had only an hour and

a half of dialogue for him to read. So, we were like 'let's just have him do more.' We ended up looking at some side quests that had more ways of solving. I don't think it was conscious, the raiders are important let's give the raiders a slide, it was more wow there's several ways to complete the Tandi quest let's have a slide for that. And somebody said, 'what's so important about Tandi?' and somebody jokingly said 'She becomes the president of the New Californian Republic' and they're like 'yeahhhhh.' I'd like to say that we thought about these all carefully but it really was that we were nearly at the end of the game, the main story quest and the side quests that had a lot of solutions ended up getting slides. That may have made them look too important, but we weren't thinking of them that way, we were just saying hey we gave you a lot of ways of doing it [side quests] and tracked it, let's show the player how clever we were in how we tracked what they did.

D: I think it definitely paid off. Sorry I wrote a whole bunch, but half of them we've covered (T: I talk a lot). No no no it's fine, it's great. I mean the thing is I'll write a whole bunch of theory stuff, show it to my supervisor or whoever and they'll say it's great, but where's your evidence for it? And I'll go it's in all these games. But they'll go where's the evidence? So, you saying all this stuff is great (T: I'm the evidence) exactly. I mean you made the game.

D: So this stuff I think we've sort of covered. So with the Waterchip or the reactivity of the game, there are certain areas that change depending on what the player's done. So obviously Vault 13 changes when you come back with the Waterchip and they go you can do all these other things, or Shady Sands changes after you return there the first time and Tandi comes back. Is that just more of that reactivity, or is it something more like the level reacting?

T: So we used to talk about reactivity kind of reinforced at every level of the game. Meaning a dialogue would change, a character's reaction would change. When we started doing the random encounters, I said that I wanted some random encounters that react to what kind of character you've made, or what you've done in the past. That's when people started to say I want to make a bunch of quests but I want to gate them behind something you've done. And at that point we had so many side quests that people had done that because side quests don't really have any structure it's like, we didn't know what to do. It's like okay you've done the main story quest here, how do we give you all the other side quests. A good way of gating them to make them fit into the story more easily. Is Okay, Tandi's so happy that you rescued her, that sure she asks, 'you're super helpful what about you do these other things for us?' There is a reason she's asking you to do these things is that you're really helpful and you've proven yourself to be very heroic.

It got away from that feeling that I had when I played *Ultimas* that I'd walk into a town, and there were all these people that were like 'We've got all these problems that we can't solve them and we don't know who you are but can you solve these for us?' It was more of a thing of 'hey we weren't sure about you, but you rescued my daughter, so I like you. I trust you to do these other things.' It just made more narrative sense that way and because we had so many side quests and when people wanted to gate them behind reactivity based on what you've done before I just said 'Well that's great it makes our narrative better, it supports our reactivity (quota?), it gives some structure to side quests. It basically did everything we wanted.'

We were actually surprised when we were making this. We were like 'why don't other games do this? Why are other RPGs so linear?' To this day, now other RPGs are far less linear, I think someone had to do it. To say here this is what we did. But it was early enough too that there was a lot of loading too, a lot of ideas that you could have that nobody else would have done yet. Now it's a lot harder as well to come up with an idea like that.

D: Yeah. So with those gated areas. How did you define what those were? Because you said that rescuing Tandi was one of those, you could almost say that rescuing Tandi is sort of a side quest because it's not relevant to getting the Waterchip, (T: You'd have to do it), it helps and it points you towards getting the Waterchip but it's not absolutely necessary to finish the game.

T: I think what we did was there were some side quests. We didn't have metrics, but I would sit down with the head of QA everyday and just say, like just 15 minutes, just to say what's going on, what problems are you noticing, what else are you noticing. And he'd often say 'hey you know I've got 10 people running the game today and they've all done this side quest, just like everybody's done it' and so that's the kind of quest that would gate other quests. Because 'hey' since you've done it we can track the ways you solved it and that's your reactivity. But some quests didn't make sense because, some side quests were so weird. It's like why would anyone ask that of you? It's like... well connect it to this other thing very weakly, you know it'll make more sense that you've rescued her cat, maybe you can you know find her mum. Or I don't know, I can't remember some of the things we did but we ended up doing it that way.

Plus there were some places that just had so many side quests because someone producing them just went crazy that we felt the need to structure them. So we ended up tucking them behind completing other quests just to give some sort of... [so] things would roll out. Rather than going to town and there's just an explosion of side quests.

D: Yeah and then you finish them all and there's nothing else to do [T: Yeah]. And then you just kind of stand there.

T: Yeah instead you do one or two and you do them. Oh my god there's two more. Oh and then another one appears over there. So...

D: Oh wait now you're in a different area and you don't have to worry about the stuff in the previous town.

T: Yeah, plus I made it fun to go back to those previous towns and find things that you hadn't done before.

D: Which not a lot of games would do. In terms of going back to old areas and having new quests or developments there.

D: Is it okay if I ask you a couple of questions about *Fallout 2*. (T: Sure) I'm just wondering about time. (T: I'll probably have to be done in 10 minutes). That's fine since your involvement with *Fallout 2* was less than *Fallout* one. So it shouldn't be too long.

So you said that you helped design the narrative, like the overall arc of it. What did that involve? Was that just we need a storyline because most of the gameplay and mechanics are from *Fallout*.

T: Yeah it was pretty much the same as *Fallout 1* except it was with a group of different people, Scott Campbell wasn't there. So Leonard Boyarsky, Jason (Anderson) and I sat down and wrote a story and then we connected it to areas we just invented the areas and we also made up the characters for the story to go through. *Fallout 2* pretty much shipped with that. It was the player leaving his village, where his grandfather, grandparent, because it could have been a grandmother was the Vault Dweller, you were trying to find the Garden of Eden a crazy kit mentioned on the last page of the *Fallout* manual. And so we wrote this whole storyline which revealed the real truth behind the Vaults, because I was really into *X-Files* at the time, the 'reaaaaal' truth. I think what shipped was close to what we wrote, although the specifics were different, because I think when we left the only

areas that were done were Arroyo, The Den, and we just started Vault City when we left. So the whole rest of it was done by different people, but the main story line was pretty much the same.

D: So you were talking about areas that were done before, so with the development of the storyline to certain areas, like Arroyo or The Den, were there certain gameplay beats that you wanted to hit alongside the story. So for instance have the Temple of Trials in Arroyo, and then with The Den that's your first major hub area where you can buy all these things and

T: The temple of trials we were forced to put that in by the head of marketing, or somebody, somebody came and told us we had to do it because they said that there needs to be a tutorial. And we didn't want to do it. So we did it but it was added in quickly and without much thought. Everything else was sort of like You were supposed to be this rustic village kid who'd never been out, who'd never been anywhere but you put on this Vault Suit and now everyone treats you differently.

The Den was supposed to be your first big hub, but also your first taste of people aren't that nice.

Vault City was supposed to be your first example of what could have happened but didn't with your grandparents Vault. I mean this is how it was supposed to work, they were supposed to come above ground and have all this wonderful stuff, and it didn't work for them.

And then you find out why, that all the Vaults were planned for different reasons and then it becomes very dark as you start to learn that.

And that was kind of the beats that we were trying to hit of: naïve kid, first taste of the big world, and then taste of what should have been or could have been, and then why all this is like, which you don't find out in real life, but we could make it a game, you find out why this happened, and then you go up against the enclave.

D: Also with the placement of each of the levels, so like having Vault City very far east compared to Arroyo, what helped determine this? Was it that it was a far off destination so that the player would probably have X amount of random encounters? Or have to hit the Den and there was another town?

T: We did that deliberately for *Fallout 1* and we did it in *Fallout 2*. We would tell you [the player] to go one place and you'd get it marked on the map and then have to go another place, that we'd deliberately place. So you were going along and the map would automatically stop and go you see a town. And you're like 'Oh I'm going to go there.' We just did those deliberately. But yeah part of it was that Vault City was far away because it was removed from the politics going on in the rest of the game. But also it meant that going there you're probably going to have encounters, going there, and you'd probably run across new areas the first time.

D: I'm not sure if this will be a good question for you. But when you're going south in *Fallout 2* there is a certain area which is just hard with random encounters, you can sort of cheat the system by resetting it a bunch of times. Was that something that you tried to do in *Fallout 1* or had a hand in *Fallout 2*, in terms of increasing the difficulty for certain areas to prevent people from accessing it?

T: No we. Well we made some areas really hard like the military areas really hard so that if you went there early you'd be whisked away. But we never did, the random encounter system was never intended to be that punishing, and you could always run away from it. I mean you usually start right next to the exit like 'Oh my god it's three owl bears' I'm out of here, or three deathclaws and you're like 'I'm gone.' So no I think that was probably someone else's idea.

T: What was the name of that area?

D: Oh well it was pretty much after Vault City just as you were about to head south to get towards the enclave area, I think you meet one of the friendly supermutants in another town [Broken Hill] and then just south of that there's just, for me at least perhaps I was just really unlucky, just a bunch of guys with miniguns and supermutants, and just not at all fun, because I tried to go the dialogue route. [Anyway the reason I bring it up is] because in *Fallout New Vegas* where you start off in the bottom left, or top left area of the map, and the strip is directly north east so you could go that way, but there's a bunch of deathclaws there. So obviously the player can try, but will obviously fail and *Fallout 2's* kind of similar.

T: I didn't plan that in *Fallout 2* and when I played *New Vegas* I actually commented to people working here [Obsidian Entertainment] about it that I said It's kind of mean to make a point of interest like the strip and encourage me to directly walk to it and then kill me if I do that.

D: Yeah, it was just an interesting kind of development, because it forces the player to find different routes, or explore different areas.

Okay so this is probably the last question.

What were some of the notable reactions that you had planned for the first area in terms of like, so say that you've completed an area Arroyo, the den, Vault city, was there anything planned for when you came back to them later on. So say after you discover the enclave, so obviously Arroyo gets destroyed, or not wiped out, but the Enclave take the villagers. Was there anything like that for the other areas?

The original plan for the Car was for you to find the car, have to go back to, I think, the Den and get the guy there to fix it, then you had to, the original plan it ran on gas, and you had to go and secure the Poseidon oil refinery and you had to fill the car periodically go back there periodically to fill up the car with gas. So you had to keep it cleared out, it kind of became your home base they abandoned that idea, but what I liked about the idea it meant that you had to go back to old areas, and it was easy to because the car was super-fast. And the original plan was, once you went back there with a car you would get quests people would give to someone in a car. Like 'Hey can you get this medicine to someone really fast?' Or 'can you overtake this raider group that just left here.' That was the original plan, 'oh this is really different from *Fallout 1* because I have this superfast car, that's why they would ask me to do this.'

8.2 Leonard Boyarsky

Daniel Dunne: So I'll just start it off with a general question about your role within the development of Fallout. Because from your email, but also from talking to Tim, and looking at other interviews you've had a lot of different roles in terms of (kind of) I guess, pre-production, if that works, in terms of developing the mechanics of the game and the basics of the game world and then when you were working with the Fallout game engine and that kind of stuff you were the art director and also the writer for the development. What did that kind of pertain to, what did you have to do?

Leonard Boyarsky: I'm sure that Tim told you about how the whole thing started. He just sent out emails asking people to show up who wanted to talk about it. I got assigned, well first we had those meetings after work and we kind of all went through a bunch of story ideas, we knew it was going to be a GURPS game, so we had all these kind of crazy ideas.

One thing that I was very adamant about was that I did not want it to make another fantasy game I mean I hadn't made a bunch of fantasy games, but it seemed to be that all that was out there was fantasy games. And I was a big fan of *Mad Max*, so *Road Warrior*, *Mad Max 2* was called the *Road Warrior*, (D: Yeah.) So me and Jason, who ended up being the technical art lead, but I didn't know him before this time really pushed for that. I don't remember who made the final decision, so we got that going. We kinda all decided in general what the game was supposed to be. You know we, Tim, I don't remember if it started with Tim, but we all had a ... I don't remember discussing it, it was just like 'oh yes we're going to make a game where you can do whatever, you can play it however you want.' And to me that was the extent of my game design.

I helped out with the original story stuff, as much as anybody did in that group. Will kind of decided on the direction, we kind of decided on the general outline about what was going to happen. Our lead designer at the time Scott Campbell, went and wrote it up.

So we had a design bible. At that point me and Jason just kind of went off and started doing the artwork. And it was a little while maybe 6 months to a year, before we... probably more like 6 months, before we decided to do the whole 50s retro thing. Up until that point, it was pretty much going to be a straight *Mad Max* kind of inspired post-apocalyptic world.

So ironically when we switched over, we hadn't, I hadn't been looking over the story beats or details too closely. I just knew the general framework and I knew what we needed for the art so that's how I was proceeding. It wasn't until after we switched over me and Jason ended up writing the log stuff that it seemed to really make sense to us, to have gone in that 50s direction. Because a lot of the plot was a lot of that B movies science fiction so if we had tried to play it straight. So ... I don't know it was weird the whole thing fell into place without a lot of pre-planning.

So basically how it progressed, after our original meetings. Me and Jason were just responsible for the art. Me and him did like, you know. For instance I did all the male hero animations, not only animations, but design of the character, the modelling of the character, the texture mapping for the character. Jason did the female version of the Vault dweller. He did some armours I did other armours. There was just not a lot of people on the team at that time. So we were just doing everything.

L: So we did all that and then I don't actually remember the sequence of events. I'm assuming this happened before I went on my honeymoon. Because at a certain point me and Jason had to go and do, well first we had to do the intro of the game. And we had all these restrictions because we wanted it to look really good. You couldn't really, especially with the tools we had at the time, I mean even Hollywood at that point in time couldn't make really good characters in 3D. I mean if you

looked at the games at the time it was like a couple of polygons with stuff slapped on the front of them. So we decided you know came to concede to have everything happen on a television set so you were immediately far away and so we came up with that and I was really happy with that. I still am. I'm really proud of that intro.

We threw, I don't know if Tim told you the whole story, about how we couldn't get 'I don't want to set the world on fire' and we ended up with 'Maybe,' which we, the only reason we wanted it was because we wanted 'I don't want to set the world on fire,' because of the sound and the fact that the joke, you know 'I don't want to set the world on fire,' kind of fit the game. But like an added bonus. But we just wanted that sound. And then we found out that, basically, all the Inkspot songs sounded virtually identical. So we got 'Maybe' just because that happened to be in this giant box set that me and... there were three or four boxes... that me and Jason went through every CD and I finally found. You know it was songs from the 30s to the 50s and I finally found that song.

Then we put it in the intro and then when me and Jason went to do the outro we were just, we were just supposed to basically – and we had all agreed upon this, there wasn't really much discussion about it – you come back to the Vault and you're a big hero and there's supposed to be some big celebration. And we're just sitting there like going how we're going to show this. And it occurred to me after you know a year or so whatever it was working on the game and knowing what I do about the different factions and everything. The Vault-dwellers would not allow you back into the Vault. They're totally xenophobic, you've gone native, and you're coming back in your giant power armour or whatever. So I told Tim that we're going to kick the player, the Vault-dweller or the player out of the Vault, and he just, he was kind of freaked out. He didn't think.

L: To hear him tell it now, it took him a couple of days to get his head around it. All I remember is going around to his office and telling him, that's what we're going to do, and him looking very scared to me going 'Okay see you later.' Just going and doing it. So I don't remember him wrestling with it because I kind of decided that's what I'm going to do.

And that's kind of how the ... It was really weird how ... it would. Well. Me coming in with the 50s retro thing it felt like we could go out on all these tangents but it is kind of like we all had this shared ethos or this communal thing that at the very early days we had decided what this game was going to be and we all knew what it was going to be. So it was like all these different ideas that we came up with really fit and we were just really excited by the different stuff people were doing.

So then I had done all that, and done most of the art if not all the art for the game. I went off on my honeymoon, right before I went off for my honeymoon Jason said that 'I played through the Brotherhood of Steel and there's nothing there.' We had already done the talking heads so that was all the characters that had VO voice over, but apart from them there was nothing else for the Brotherhood of Steel. And so he went and designed a whole bunch of it and I went off on my honeymoon and I came back and he's like 'remember those BoS [Brotherhood of Steel]. I'm like 'yeah' And he's like 'the whole game is like that.' I'm like 'wait... what? We have these design docs, you know binders full of designs for this game, where's all the content?' And none of it had been put in. I don't know what had happened. I don't know, don't want to speculate, but that's how I became a writer in the videogame industry because we saw what was...

First we had the designers go and start writing all this stuff and the stuff we were looking at we were all 'we don't like this, this doesn't seem like a game we had all decided to make.' So then Jason and I in an ultimate act of hubris decided that we were going to write a bunch of dialogue and we ended up, you know, taking big sections of the game away from the designers and putting them together.

So it's kind of weird because we decided on one thing you know, that we all had this kind of feeling that this is the way that the game should go, it didn't get put in and we ended up putting it in at the end me and Jason wrote a lot of that stuff... so it's weird. It wasn't like we were coming in with something new it was like we felt like they hadn't done what we had originally set out to do.

D: Yeah or filling in a hole I guess.

L: So it was a weird path for the game because I had no game designer training, I had never designed anything before. But Tim was gracious enough to let us in on the initial design stuff and then I did all the art and then at the end we ended up doing design stuff and then after. I don't know if you're covering *Fallout 2* at all. But then after *Fallout 1* shipped is when we went back me and Jason and Tim wrote the story for *Fallout 2*, designed a whole bunch of things like okay followers were shoved in *Fallout* we hadn't really planned them out, how do we make followers better? Tim mostly did the design fixes, but a lot of that stuff we had discussed internally and then we went off to Troika Games. So that was not obviously an easy question to answer because of the sequiturs route that I took through the game.

D: Yeah. No no that's kind of why I wanted to ask at the start just to make sure that I had things to go towards rather than going 'were you related to this?'

L: Probably way too much to tell you.

D: No, no. the more details about it the better. As I told Tim. No that's really good.

So with the general outline of the game what did you mean by that? Was that just in terms of that... you wanted to make sure that there was this hero's journey? Or that there was a water chip? Or there were certain narrative beats that you wanted to hit? The fact that the hub exists? Or the boneyard exists? Those kinds of implications. What was the general outline?

L: The general outline I don't really remember. Well he had, Scott Campbell had, before he left, had pretty much written out a lot of main quests I mean not in the game, but in these design documents. He designed Junktown, he came up with a lot of the characters like Gizmo, and Gillian. Some characters that didn't make it in, some characters that did. There's pictures that he drew up on the internet that he drew that has a bunch of characters including a talking raccoon, that I said, 'there's no way talking raccoons are going to be in this game.' So he hit actually... so it's really funny because he was telling, doing an interview once and he was saying that he wrote all this stuff for *Fallout* and this guy I was working with at the time over at Blizzard a couple of years back said you know 'Did this guy write it, I remember all this stuff.' And I said well 'that's a tough question to answer,' because he wrote a version of the game that was, I mean, he came up with all that stuff and a lot of the stuff he came up with was really good, but that's not the version of the game that came out, because we then ran it through our 50s filter and our weird humour that we started to put into it but you know without him doing that we would've come up with way different stories and at that point in time like I said I didn't even think that writing the story wasn't anything that I'd be involved in so it was kind of like, the fact that they listened to me in the beginning was thrilling and I was like oh I get to help write the story for a game. So yeah we had this outline that pretty much covered the main beats of the game, except for the way it was presented a lot of it was already there.

So we added a lot of side quests, Jason and I, we did things like, like I said the VO was recorded for the main talking heads. But some of those heads weren't giving the information that they were supposed to and that information was in the design doc. So I don't know how it got lost between it being written down and it being recorded, so there were a couple of very dramatic instances where

people didn't tell you things they were supposed to tell you. So there's three or four characters that we added to the game who are standing next to these people who had talking heads, I think specifically Vree her assistant. Vree was supposed to be studying all this stuff, but she got wrapped up in whatever she was supposed to be talking about, so here's basically the information that you're looking for. So we had to do a lot of stuff like that and wrote a lot of side quests. Like I said a lot of that stuff was basically outlined you know we put the meat on the bones that was there when we took over that aspect of it.

D: So you had a good direction to go in. So when I was talking to Tim he said that a lot of the UI design was inspired by yourself, like very early on. So the fact that you wanted it to be the Vault-tec kind of look, so the fact that you had with the UI design had a very hard metal outlook. Like the buttons looked bulky – that kind of stuff. So he said that came first in a lot of ways. Is that right?

L: Yeah. It's really weird like 20 years ago now that timelines of certain things happened but the timelines do not add up, because it took a long time for the 50s thing to come up, for me to come up with the 50s thing. Yet I can't believe that we spent all that time without an interface for the game because it was very much, I feel, part of that thing. But as far as that interface goes I never had designed an interface, so I didn't know what needed to be on an interface, they told me what they wanted, I knew what I wanted it to look like, but I wasn't good at designing industrial things. So I went around the company and I found a guy who had the skills we needed and then I got him assigned to our project and he designed out what, I told him what we wanted, and he designed out what our interfaces were going to look like for the most part. Like especially the one at the bottom of the screen and then I went and built that in 3D and textured it. So it was my idea, but I could not have done it, his name was Tony Postma and he was a fantastic industrial design artist. So he went and he designed that for me. And then Jason did like without anyone else designing this, he just did it because he was very technical he kind of knew what it should look like. He designed the, running with that, the talk window, when you talk to someone and it goes into that TV screen and you see the vacuum tubes. That was Jason's work.

L: But it was funny a lot of times in videogames back then you'd look at stuff and you'd see a person or a wall and they would have one colour on it. And that's not how colour works in the real world. So I went and I built this thing and I went through and I know that everybody knows about naked files now. But it was very different then. And I made a wall texture, and that wasn't what I wanted so I made A wall, B wall, and when I got to N wall was what I wanted for this texture and so we threw like N wall as a layer on top of every texture just different colours different tones and different values. That would kind of like give the surfaces this rough dirty look to make it not a solid colour so like things like that I originated and then Jason just ran with that stuff and did a fantastic job. So yeah it was really the whole team, a lot of the original inspiration for a lot of that stuff came from me, but I could not have done half of that stuff without Jason or Tony Postma or some of the other people like Erik Campion who we got from the other team or, Scott Rosehyder who sculpted the heads. I don't remember.

I knew that for the heads, I was the one who came up with the idea for the heads but I think what happened was that Scott was making sculptures for another project, which is where the Deathclaw came from that was a T-Ray Issac and I saw him doing that and what he was doing was digitising that, back then they didn't have a laser scanner you had a pen and you'd have a mesh of dots and you'd sit there and have to input every coordinate by hand and he was doing that and I guess that inspired me to go we should do heads like that. So once again you couldn't have, it was really hard to model a convincing face so Scott, he didn't, I couldn't, once he showed me how to do it like I had this thing where I was going to do one of everything in the game, so I like in clay I had a head about this

big and I sculpted the overseer's head and he digitised it for me and I put textures on it and did all the animations foley and animator, actually probably me, put the whole thing together. But without Scott being there I wouldn't have had the original idea and wouldn't have had any idea on how to sculpt this giant head. So it was really this great creative atmosphere that we could do stuff like that and the team was long enough which was horrible because we were there 24 hours each day but it was really cool because we got to do, like have our hands in everything.

L: I know I'm going all over the place with everything I hope I'm answering your questions.

D: No no no. It's fine. Like you've answered the UI question and you've gone over one – I think I sent it over in the sample questions – with the talking heads and that kind of stuff.

L: Yeah Tim asked me, told me about that one.

D: Yeah no I was just curious. Because it's a big part of the game. So with those, I guess key characters were they set out in the original outline, or were they kind of introduced with each major plot point? So you knew you had to talk to a BoS person so you knew you had to have a talking head for her? And yeah the Master obviously. And I guess the Overseer at Vault 31, 13 sorry.

L: So the Master

D: Erup, Oh sorry. I was just going to say did you have all these characters planned out, or did they come up during development?

L: Well Scott came in one day I, we had figured out how we're going to do the heads. And we knew we couldn't have that many of them because of the time they took. So we wanted them to just be major characters. And Scott came in one day with a list of 40 characters that we had to have in the game. And I just was 'I don't know what you're talking about because it doesn't matter how much we quote, we have to have these in the game and we can't have this many characters in the game.' I don't know how he settled on which ones to put in I mean obviously we had the overseer, obviously we had the master. I guess if you look at Junktown that's the perfect example you know the main quest that's going on there, between Gizmo and Killian so it made sense for us to do them. And I think that's how we approached everything. Or major plot points. Once again Vree was supposed to give you major plot points but she kind of fell down on that job. And then the master was done a little bit differently – I took an existing facemesh and I built everything else like everything else you see in that scene was built by hand in [Maya?] Except for the basic face which I tweaked and made so that was made a little bit differently. There was no clay head for the Master. But all the other ones had clay heads associated with them, which we lit and did some cool texture things to.

To me it was just... I don't remember the specifics about a lot of this stuff. It's just me looking at it going well I guess we looked at it, decided who the important characters were and just went from there.

D: Yeah as a matter of fact as opposed to planning out everything out from the start. We need these heads we need these now.

L: There's a lot of stuff we did not plan out from the start. We got really lucky all through the project, with the way things unfolded.

D: With the dialogue system there's two buttons. You've obviously got the barter button but there was also a 'tell me about'. I'm not sure if you know much about why that was implemented, or

L: We just thought it was a good idea. Like I said I had never written a game before. I had never even designed one and didn't design how that stuff was going to work. I remember we talked about it very early on - I think - In the initial meetings. I don't remember... It was just one of those things that came up and was a good idea. Tim had a lot of experience with gaming, but he hadn't designed a game previously either. I didn't even have that much experience playing games either because the era before then. I did a bunch of text stuff, like *Zork*, *Wizardry* ... but I hadn't played a game for years and then I went to college and I spent all nighters doing paintings and stuff. So I really didn't, I didn't have money or time to spend on that stuff.

So here's this guy Tim tons of experience with running DnD, but no experience making a game, designing a game. I have no. I don't even have experience doing that stuff, and yet we're going 'Hey that sounds like a really good idea, that would be awesome to put into our game.' So you know that's the sort of level of thought a lot of this stuff had.

D: That's okay. Because for what I'm trying to do with the thesis is just kind of get a look at how the game reacts to what the players are doing, and so even though a lot of these things are off the cuff they're still influencing the way the player can kind of react to the game, or the game react to the player.

L: I was going to say that was the main thing from the early beginnings. It was fun writing a story, but it was way more important. It was way more important than the story was going to be than it was that you could play the game however you wanted. You know, you could lie, I mean you could talk, steal, or fight your way through everything, every? Well most major encounters in the game. That was basically our mantra for making the game.

D: Which really does show through it. So with that as well... Actually no I'll move it on to art stuff. How much of a hand did you have, Tim talks about this as well, with the experience of *Fallout* – the game box, the splash screen at the start and the manual and all those kinds of things. That was kind of an experience that you would read, like when you were installing the game you could read the manual and get an experience of the story, and be involved in the game.

L: Jason and I kind of had a hand in almost all of that stuff. I had this thing where I turned it was that I wanted things to look like they were objects that you could find in the world. I wanted the interface to look like something that you'd find in the world. Even the box cover I wanted it to look like something that would be found in the world. No bigger meta-fiction story about that just that I wanted everything to have that feel and I wanted everything to bring you into the game and give you that experience just, you know when you were looking at that manual. Once again that's one of those things where you know I said I wanted it to look like a government training manual and some guy who wasn't on the team, he worked on parts of our game but he technically wasn't on our team, showed up one day with a navy training manual that looks identical to the, the cover looks identical to the manual, except it didn't have that, obviously the symbols, but the type was the same, the layout that was the same. And he's like 'is this what we're looking for?' And then we replicated that. Chris Taylor wrote the actual manual. But you know all that *Fallout* stuff that I had decided and Jason was on board with we were going to do for the whole game. Because like you said my role was to have everything, oh and the load screens too, I wanted, like I had this idea that we could overwhelm the player with art and just cool things to keep them in that space.

D: Yeah, did you see that as a direct connection to the main quest, or more so a connection to the game world. If that makes sense? Like there's a difference between what you have to do in *fallout*, and the experience of the *fallout* game.

L: It didn't have much to do with the narrative, well it had to deal with the bigger world because you know our goal. We didn't really think about this until later. But once we created this world, it was, our idea was that you could do anything in it. We thought it was a really cool world and that's one of the reasons we presented this idea to the owner of the company. We said 'You could make strategy games, you could make action games in this world,' and they went and made *Tactics* after we were gone. So I believe that obviously that they thought it was a good idea too. So it wasn't actually the narrative of the game it was more about the narrative of the world – 'What is this world?' – so that part of it. Immersing you in the world was more important than the specific story we were telling.

D: Yeah. So taking a step back from that gameworld stuff. With the various outros that you had. Well first of all how did you go about designing those, but also what lead you towards the design of going 'Okay so for the ending with the master we need to have 3 to 4 various endings.' While Junktown would have 2 different endings that kind of stuff.

L: That was just something I don't know where it came from but early on we just thought, you know If we were allowing your choices to affect this world it would be really ... we can't just leave it hanging we want to tell you what happened later to these people. And the way we designed it, was we had a list of 'If you did this' and obviously they had 'If you did this then this this other thing would happen' so it was a mesh of different things that you would have to do. But we had a list of what the screens were going to be and then we just sat down and sorted out what we could show. What actions that we had that we could use. What we could do with the budget we had. But we always, from the very beginning of the game, in the early days of the game, we wanted to do things like that. Because we wanted you to feel like you were affecting this world.

D: Yeah. Do you think that kind of contradicts, well not contradicts, but runs in competition to the idea of the player being able to do whatever they want. So on the one hand you've got unlimited freedom, on the other hand you've got how the world will react in certain ways. So you've got this fated world, and on the other hand players can do whatever they want. So how did you navigate that? Or did you see it like that at all?

L: Well no, because at the end of the day we're telling a story so there has to be certain things that happen. No matter what you do, you have to face the master at some point, no matter what you do you have to bring the waterchip back at some point. If you're going to tell a story you don't have a choice and you can't let it be random stuff that happens. The world then wouldn't be a story. You know a story mission needs a beginning, a middle and an end, or at least a beginning and an end – I guess technically the middle is just everything that happens in-between. Because *Fallout* really had a beginning, I guess the middle would be delivering the water chip (Although technically that was the end of one story) and the next story was taking on the master. But it just seemed like a natural thing to us. If I'm making choices then I want to see what the results of those choices are going to be and you saw that all through the game.

If you made certain choices in one place they might have an effect in other places it was really a rudimentary form of that at the time, you wouldn't get in as deep as that, as we would in our later games. But it just seemed like that if I was able to see what happened because of my choices it was a natural extension to what happens after the game was over.

I think that a lot of that, once again I don't know what the timeframe was is, the whole *Road Warrior* ending, I think one of the most ingenious things about *Road Warrior*, *Mad Max 2*, was that they bookended it with the intro and the ending, where it went from just a straight action movie to this mythic, this legend that somebody was telling, natives around the campfire hundreds of years or 80

years or whatever it was. To me that elevated it, and that really permeated *Fallout*, and you know, back into *Fallout 2* where you're, you know, a native now. Because that's mimicking the *Road Warrior* thing, where you know the character from the first game, I was going to say movie, the character from the first game is now this myth. So if you look at it that way it just makes sense that you would at the end of the game find out what's going to happen. You know 'what happened' as part of this all, this is what happened in the past kind of field.

Now having said that I have no idea. Those things all could have happened independently and just now when you look back on it does it 'Oh look it of course fits together.' Because I feel like we had the endings planned out from the very beginning which was way before I figured out how to get the ending that would have this emotional impact. Or even knowing that I wanted that. Because we just assumed, we didn't really reflect back on a lot of our early decisions, and we just made these decisions and move forward. It wasn't until we had to go in and actually make them that we started to go 'Hey wait a minute, not only do I not know how to make a cool looking celebration that has brahmas and doesn't make any sense.' In retrospect it feels like that's the game we wanted to make, but it was weird how it progressed.

D: Yeah that's totally fine. You said that the choices, the reactions to choices, or the consequences of choices it was simpler in *Fallout* and then progressed more in later games. What did you mean by that progression?

L: One of the things we did in *Fallout 2* and *Arcanum* was that we really just wanted to open it up to have a lot more reactivity a lot more plot points, that you could decide. I think to a certain degree we went a little too far, I'm not sure about *Fallout 2*, but probably *Fallout 2* and *Arcanum*, we thought if we had more story, it would be better story. I feel like we hit on something that was maybe a little too simple to do for nowadays. But I think through no prior planning it just ended up, there were three things you had to do in the main story arc. So we thought that in *Arcanum* and *Fallout 2* that was too simple, we needed more beats in the main story, and I agree and I think we pushed that a little further but in *Arcanum* especially because our tools were so much better. I don't know if Tim told you this, but he gave us tools to do basically whatever we wanted. And so constantly when we were doing every quest we were asking ourselves, 'if I was playing this quest, what would I want to do that I haven't previously planned for?' So I know there wasn't, I haven't looked at *Fallout 1* for a long time but I know there was a lot of places that had reactivity – we tried to put reactivity everywhere in the planning of *Fallout 2*, but definitely in the execution of *Arcanum* – we weren't there for the execution of *Fallout 2* – but in *Arcanum*, it was like everything you did you had a choice in how you did it, you could literally kill everybody in the game except one character basically around the middle, midpoint that was a ghost that you had to talk to so it made sense you couldn't kill her. But literally you could start that game and not talk to anybody and just kill your way through the whole game and still play the main story arc. That's how dedicated we were to letting you play it the way that you wanted to play it.

D: But also having the game acknowledge what you've done, (L: Exactly) as opposed to 'oh cool you're here at the end.'

L: We got a little deeper in *Arcanum* in terms of the nitty gritty of how some of the side quests played out and things like that. For better or worse I think we did a really good job right out of the gate with the original *Fallout* and I feel like *Fallout 2* improved on it, But I think some of the things that... I don't think at the time we realised how well some of the stuff works that was an accident and some of it we tried to – you know like I said we tried to make the story more complex And I

think it could have stood to be a little bit more complex like I don't think we needed the get as complex as we started to get in *Fallout 2* or in *Arcanum*.

I think we could've made it more open to the player to make choices to drive the story. But that's each game. With each game you have a different idea you're trying to pursue or prove out in terms of narrative.

D: Yeah no. Definitely. Well with that what do you see as the role of secondary quests in *Fallout*, *Fallout 2* and *Arcanum*? And this is me talking, so obviously you might see differently. All the side quests allow for a lot more variation in what the player can do simply because they can totally fail the side quest and still continue playing the main quest, whereas with the main quest there has to be a ... if you fail then obviously that's a death state, as opposed to you can fail and still continue.

L: Yeah and ...there's a lot more... you can do a lot more things. Like you can make a quest that you can only ... let's say thieves' guild to you and obviously you have to be a thief to do it. You obviously can't do it on the main story arc because we'd have to let you do it every different way that you want. And even if you quote 'fail it' you still have to be able to do it. Which opens up a lot of things, but there's a lot more freedom with a side quest, like you were saying.

And I just think in a lot of ways the most memorable stuff in some of our games are the side quests and the other things you could do because it doesn't have to have this major story where you're pulling the player through with its own constraints, there's certain things you need to do to make sure the player's engaged, the nature of the player is that they want to move forward. Whereas with a lot of the side quests stuff is just pickup you know it's like 'well the player wants to do this so they'll do it.' We don't have to try as hard to entice them. We just have to make a cool little story that's self-contained that maybe has some things in it that affect things down the road. But it's much less... it could be totally self-contained, it could totally be spread out. As you're making the quest you can do whatever is best for the quest as opposed to the main story arch where you're like 'we have a laundry list of things that we have to do here.' Yeah does that make sense?

D: Yeah no totally. So going back to the endings of the game – so to bring that back up again. The fact that some of those endings contained side quests was that an obvious choice? Oh we've got extra time with Ron Pearlman we might as well get him to say x,y,z?

L: I have no idea to be perfectly honest. (D: That's okay). I remember more about *Arcanum* than the beginnings of *Fallout*, because the beginnings of *Fallout* were much more freeform. And we hadn't made a game like that before. So I don't know how we went about deciding which things got slides at the end.

What we did in *Arcanum* was if there was anything that we felt was a major side quest in the game, we tried to not only plan out what would happen with it, but what would happen if you made certain choices. We tried to track a lot more of that stuff in *Arcanum* than we did in *Fallout*. So I don't know the process that we went through deciding those. Or if I had asked [Access?]. A lot of that stuff was probably in the original design doc that Scott Campbell wrote like a lot of it seemed to already be there. It was just, I think we did a, ... the interpretation came later, the twist we put on it came later, the basic raw material that we built it on or the basic framework that we built it on was there from almost the start.

Before I started fancying myself as a game designer.

D: No no its all good just because Tim's talked about a couple of these things as well so I just wanted to get another perspective. So it's all very useful.

So this is just a clarification. With major side quests either in *Arcanum* or in *Fallout* would you say that they were both planned for in the beginning?

L: A lot of them. A lot of them just happened. There was a lot of side quests that we did on the way in *Fallout* but if I recall correctly a lot of the side quests were planned from the beginning. Like for instance the whole story of Junktown I know that the Gizmo-Killian thing was from early on.

In *Arcanum* I think it was the same thing. We planned major side quests were going to be, and how they intertwined with the main story arc. But I know when we were actually just sitting there making the game we would be working on an area and we'd go oh 'We need a character here and lets come up with a storyboard.' It was very freeform in a lot of ways when you got into the side quest stuff. It was kind of what struck your fancy at the time.

D: Which would allow for a lot more variation in sidequests also a lot more creativity because you wouldn't need to go towards... I mean there would still be design considerations, but like obviously you can play around with those a lot more than the main quest.

L: Yeah and do whatever your group [beats?] needs.

D: I think in a previous interview you talked about how you worked on a couple of holotapes and dialogue obviously. I'm interested in what you determined those holotapes would be about in the first place, but also how you went about writing those. Were you like 'there needs to be some story content, something to build up the world, or something to service this quest' or was it that you had free time and thought 'Oh this would be fun to do.'

L: I don't remember. I know I wrote ... I don't remember if they were pre-planned or I would be working on an area and I would decide that it needed to tell more of the story through a holotape. Because those were easy. You know you just write text you don't have to put anything in the game it's just the text. For instance I wrote a bunch of FEV experimentation holotapes, I wrote the Master's journal how he went from being Richard Row or Richard Gray I don't know how he ended up with two names. But yeah I remember writing that, but I don't remember if I decided if we needed it or if it was planned for and nobody had done it and so I picked it up and ran with it.

D: And those were pretty much... I guess the Master had a backstory that you had to fill in. But what was your creativity in that or what was the design goals that you had to head towards – just write something? Or was it write something concerning FEV? Or write something concerning FEV which means it's related to radiation?

L: I have to go back and look at those. Tim wrote some stuff about what FEV actually was and some of that experiment stuff. I didn't write about the actual experimentation I forget what it was but it had to do with scientists, but with ... so I don't remember the genesis of that stuff or the purpose of it. I think it was just backstory stuff and when I set out to write the Master's stuff. I don't remember if you could end up using any of that for the ending dialogue. At the end. When you talk to, if you could talk him into killing himself. I don't remember if any of that came from that. The only thing I do remember was sitting down and trying to write as compelling a backstory that would be, before you met him you'd be like, you'd see his path from a human being into this thing. (D: Yeah) I didn't have any bigger agenda at that point. Like I said it could've been that I had to have some information in there that the game, the player needed to find to have certain talk solutions. But I don't remember off hand, one thing I remember was trying to capture the character who he was before and how he changed and what that process was.

D: And did you have any influence on what the master's dialogue was or was that already pre-written?

L: The master's dialogue was already recorded. This wasn't the worst instance of it. The worst instance of it was somewhere, one of the talking heads in the Brotherhood of Steel. Jason actually had to go in and reconstruct the whole conversation – almost from scratch. With the raw material of we have these recorded lines, we had to make sense of this. A lot of the Master's stuff kind of worked. It was just the trees were kind of funky in terms of how you got from one node to another. And the talk solution made absolutely no sense at all. I'm like 'You can't follow this. You can't figure out what was going on.' Well basically me and Jason, one of the things we did was we went through and rewrote all the player lines in the game for the talking heads. And so I did that on the Master, but then I also had to restructure how the flowchart basically for the dialogue would make some sort of sense where you worked your way through it and tried to talk him into killing himself. Basically a lot of it was non-sequiturs. When I started working on it I was like 'I don't understand...' I had it all laid out before me and I didn't understand how it was supposed to work. You know there's going to be no way for the player to figure this out just from these responses, I'm looking at the whole thing and I got nothing. You know? So it was kind of like triage at that point.

D: I guess like with the Master especially because he's like... not completely psychotic but a bit unhinged a lot of those mistakes can be.... Painted over or kind of not brushed aside – he's going to be less logical than other characters. But I totally take your point.

L: Oh yeah yeah. It was more so that the player could follow what was going on. I mean it's one thing, and don't get me wrong I think that the writing that was done on his actual lines and the acting that was done – all that stuff was great. It was just that it didn't make much sense. And by that I mean he didn't really make much sense for you trying to follow the conversation, just like I ask this question and he had this response. A lot of the time it was like 'I don't understand why this response is keyed to this player question' so I had to rewrite the player question so that it made sense for that response. Because you had to be able to have a conversation with him no matter how crazy he was, for you to be able to get the plot or if you were a talking character to convince him to kill himself.

D: Or have reactivity? Because if you're pressing buttons on the computer and it's reacting in a weird way that's not playing a game (L: yeah) it has to be meaningful.

L: It's the trust thing too. The player picks things and he has no idea how what he said could have possibly had that reaction then we've done something wrong. I mean every once in a while we want interesting characters that do things you don't want to, you don't expect, but in general videogame characters are characters in movies and books, they are way more structured and rigid than actual human beings. Even well realised characters. I mean human beings can turn on a dime. You can know someone for 20 years and they could do something that you're just like 'what the hell are you doing?' This makes no sense and they don't even know why they're doing it. If you did that in a story, whether it's a movie or book or videogame the player feels like he doesn't know what's going on. It doesn't make any sense. You kind of understood what this player is about, that you're dealing with, and then this whole thing comes out of left field, you know. It needs to be neater than, tidier than real life, in a lot of ways. Yet still feel like it has depth and complexity. You know we really wanted the characters to feel like. That's another thing I wanted you to feel like you understood the what the master's... and this was part of his book, his holotapes as well... I wanted players to understand what was motivating him and what was driving him. So that it didn't just feel like he was

an evil villain rubbing his hands together and twirling his moustache. Just wanting wipe out humanity just because.

D: And that definitely comes through. So with the flowchart, dialogue tree, triage, what would you determine as successful? Would you show it to people and go does this dialogue make sense? Or would you just go through it until you were satisfied? Like what was your criteria for successful reaction from the game/successful player dialogue?

L: It was mostly me and Tim would play it and he would tell me, you know. It was less people telling us it worked, I mostly got feedback when it didn't. But I don't even remember a lot of that. I feel like we had been making the game and playing the game for so long that we had this innate sense of what needed to be done. I could be remembering it incorrectly. And so I'd talk a lot of it through with Jason, because we shared the same office and he was doing some stuff and I'd be writing some dialogue and I would come up with an idea and be like 'Hey what if this happens?' and he'd tell me if it was a good idea or not. So there was no formal review process. The formal review process was me and Jason looking at a bunch of stuff that had been written and throwing it out saying 'this is no good. This is not going to fly.' You know. I can't believe that we were allowed to get away with that because we're two artists you know, we had no training, we had no experience we could point to saying 'this is how we know we're doing the right thing. We've made all these other games. We know what works and what doesn't.' Because we were arrogant enough to go and I read all the time, besides being an artist that was my main hobby, that was just reading. I wrote when I was a kid but I hadn't written stuff since you know papers in college, but I hadn't written. I had never set out to write books or any of that stuff but because I read so much I kind of had a good feeling for what would make a good dialogue or not. And all I knew when I digging (reading) the game was that this was not what I wanted to see in our game and somehow I just, me and Jason walking around acting like we knew what we were doing people were like 'okay.' Which could have been disastrous *laughs* you know there's no reason that me and Jason should have been able to do what we did.

D: Well *Fallout* works so the proof speaks for itself.

L: Yeah surprisingly. And I got a new career out of it because then we started designing games that we were working on. I mean I worked on *Stonekeep* all I did was art, I had no. Not only did I not have say in what was going on, I had no interest in what was going on in the game. I didn't think of myself as a designer or a writer, I was just an artist.

D: So with the side quests that you designed, because I think there was one in Junktown, Partian? (Bartian) off the top of my head. What was the development process of that?

L: Which one sorry?

D: I'm probably pronouncing it wrong. It was in Junktown, I think it was a group of people come out of the display Vault that have their own kind of community.

L: I don't remember. One of the ones I do remember, I don't know there's... I don't remember it's all fuzzy. It's been a long time since I've looked at *Fallout* or read walkthroughs or played it. I briefly played *Fallout 1* and *2* before *Fallout 3* came out. And that was the last time I played either of them. So that's been 10 years now. More than 10 years? It was 2003 right?

D: No no it's 2008 because I finished highschool then so. (L: Okay yeah).

L: So it's almost 10 years.

D: Okay so with the side quests that you do remember, or the side quests that you had a hand in, even in *Arcanum*, because I'm presuming the design process was somewhat similar. What was kind of the genesis of the idea? Would you go I want to do a side quest or this area needs a side quest? Or you wanted to explore this kind of character?

L: I think all of the above. It would be like we'd look at an area and go we need more side quests, so then you'd start to do side quests. You'd have a character in the game and you'd be like I think this guy should have some ... You know I think that what it was, a lot of it started out... it's two things its you look at an area and you need more side quests, you need more stuff to do here. Or you're... you have specific ideas that you want to work throughout the game like in *Arcanum* the big thing was how magic and technology were fighting and couldn't exist together. So the people who liked technology were obviously not really enthralled with the people who liked magic. And vice versa. And we liked playing around with the politics and stuff. It would just be like we had ideas that we wanted to communicate to the player we'd put them in side quests and we'd design side quests around okay we want the player to know this piece of information. At that point we weren't as character focused as I think we are today, in 2016, it was more just about the logistics of telling the player the story and getting the player to ... it was like the medium, or the thing that would carry the story for us as opposed to thinking of it like a novelist or a screenwriter would which, if you do those correctly you were really thinking a lot about character. We were thinking much more about ideas, and what would be a cool character to be involved in this. And that's what the characterisation thing was. I don't think there was anything that came from us going I really want this character in there. (D: Yeah) ... I can't say that. I can think of actually now that I've said that, I can think of a couple off the top of my head, Like I can.... Doc Roberts in *Arcanum* you know I wanted him to be a full on cowboy western almost to a shade archetype? of the grizzled sheriff. So I made a... But that was also once again you could say that its as much of me wanting to have some sort of bank robbery that you could get involved in or thwart, but then you'd populate that by the sort of characters that you'd see in a western.

D: Hmm, well I guess, the way you could also think about it is that the medium of *Fallout*, so the fact that it's kind of a stage – in a sense – and you have these situations and the characters are more or less interchangeable because, especially with the side quests. They could possibly die or the main character could possibly not ever meet them and so if you put all your eggs in that basket then you might miss out, or the player might miss out on that and you've wasted time. Whereas if you have the situation, the situations much larger than the character.

L: Yeah in a way.

D: Yeah no, cool, really interesting. Because all this is really helpful for the..., I presume you've read through the information statement and also talked to Tim about what my thesis is about, which is looking at how videogames are reactive to what players do, (L: Aha) or how narratives structures work within videogames, and specifically within *Fallout* the fact that it's reactive. So the fact that these side quests slot into the main quest but then are also reactive to a larger extent is really interesting.

L: Yeah, I think we think about it a lot more now and we didn't think. We did a lot of stuff by instinct in *Fallout* and then we tried to refine that instinct on *Arcanum* and *Vampire* and [Somerby?] *Temple [of Elemental Evil]*, Tim worked on *Temple* me and Jason didn't, but I really feel like a lot of things went right just through sheer luck with *Fallout*, we didn't get as many lucky breaks on *Arcanum* and I think the combination of some of the stuff that didn't go right on *Arcanum* and some of the stuff that went right on *Fallout*, looking back on those two things it's like 'Oh that's where we kind of

learned why some of what we did on *Fallout* worked and some of what we tried later didn't. But it was only the combination of those experiences that we could look more critically on what we did in *Fallout* because really *Fallout* in a lot of ways was just this charmed project that should have never happened. That you know, I like to think that we're talented individuals but you know at the end of the day luck played a really huge part which was fitting since Tim was really adamant that we have luck in the game system. Which probably (D: Yeah) that was what did it for us Tim including luck.

D: I'll just put that down in the thesis, all comes down to luck. (L: Need a lot of luck). Yeah. Well that's great. I'll just look through the questions again, but I think we're pretty good with everything that you've covered. So did you have a hand in level design at all?

L: Uh no. Actually well only in that using, Junktown as an example. Like we had to figure out how you'd be able to build it so that would actually be more Jason than I. but really not like *Arcanum*. In *Arcanum* they gave us these really great tools to build maps with and we built all our own maps when we were filling out areas, when I was filling out an area I'd actually build a map for that area. Once again with absolutely no experience in level design. Just winging it.

D: No that's fine, the only other thing that I've got and so this will probably be the last question is you developed some of the small slides for the *Fallout*-boy or the pipboy, not the actual pipboy on the hand but the mascot I guess.

L: Vault-boy is what they call him now, (D: Yeah, so what was the process of that? Or how'd you go about that? Oh we'll see what this is or?) So I'd already come up with the 50s angle and we had a whole bunch of skills, a lot of skills. I think this might've been even before Perks. There was a lot of skills and stats, and icons and I'm just like 'I can't tell what any of these are, this looks ugly, I'm confused, I don't know how we can make these icons read.' So I was driving home and I had about a 45 minute to an hour and a half drive depending on traffic which was always horrible, and it just occurred to me, I don't know why, I started thinking about *Monopoly* cards. And I was like we should have a character that's kind of like Uncle Moneybags or whatever they call him, whatever his name is that is acting out whatever skill the card is for. And I came up with this idea for what I called the skilldex, I don't know if I came up with that name or not, but I came up with the idea for the card spots, this deck, and this character who would do ridiculous stuff that no matter what was going on – you know he could have his arm ripped off and he'd go 'hey this is awesome' in that kind of weird 1950s vibe for him. And I actually drew the first version of him and it has all the things you'd think about for the wavy hair the, basically all of it is there in that drawing but it doesn't quite look right and I knew it. I'm just like this guy needs to look like, more like the monopoly guy. So I gave it to an artist, because I wasn't able to have time because I was doing all this other stuff, I wasn't going to have time to do those cards, so I gave it to another artist named George Almand, who actually took my drawing and adapted it into what he looks like now. Or what people think of him as. And then he did only a couple of cards but he did the drawing that basically changed him from what my sketch was into what he is now. Then this guy named T-Ray Isaac, did all the drawings for *Fallout 1* of the skilldex cards and Brian Menzies did them all for *Fallout 2* and *Fallout New Vegas*. So that's where that guy came from.

D: Yeah that's good. So, I know I said that that was the last question, but this will build up from that. So with that kind of development of different art assets and that kind of thing how does it contribute to the sense of the game world? Like is it a very slight thing? Or do you see that as something that players are immediately influenced by? So they go into the skill screen and they see that *Fallout* boy and they go 'oh this is exactly the sense of the game that I've come to expect' or is that in combination with the main story?

L: It's kind of what I said originally. We had this and the vibe of *Fallout* is really a combination of the things that amused me and the other four or five people that came up with the original design. Because we were just having a great time and saying stuff that made each other laugh so it was really like a combination of our personalities. The vibe of *Fallout* is basically you could feel the different personalities of the people who made it. And we kind of had that aesthetic already and it just seemed to come out of that it seemed to really fit that aesthetic and once again the loading screens and the intros to the game and the lunchbox cover and the manual. It's like everywhere what I wanted to do – or the minimaps – they looked like found objects in the game. Which probably weren't all that good as maps – at that point I was more concerned with the artistic aspect of it rather than if they worked really well as maps. But everywhere you turned I wanted this artistic interpretation that drew you further into the vibe of the world that we were trying to establish. So that was along those lines, just one more thing that as you were playing would totally remind you and bring this world to life for you, to really immerse yourself while playing the game.

8.3 Ethics Documentation

SHR Project 2016/272 – Following the Fallout: Narrative structures in a videogame franchise

Approved duration: 01-01-2017 to 01-03-2017

Dr Mark Finn, Daniel Dunne (Student) - FHAD

I refer to the ethical review of the above project by a Subcommittee (SHESC1) of Swinburne's Human Research Ethics Committee (SUHREC). Your response to the review as e-mailed on 4 November 2016 was put to the Subcommittee delegate for consideration.

I am pleased to advise that, as submitted to date, ethics clearance has been given for the above project to proceed in line with standard on-going ethics clearance conditions outlined below on the proviso that the Ethics Office receives the details of the student investigators once they are known.

- All human research activity undertaken under Swinburne auspices must conform to Swinburne and external regulatory standards, including the *National Statement on Ethical Conduct in Human Research* and with respect to secure data use, retention and disposal.
- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel appointed to or associated with the project being made aware of ethics clearance conditions, including research and consent procedures or instruments approved. Any change in chief investigator/supervisor, and addition or removal of other personnel/students from the project, requires timely notification and SUHREC endorsement.
- The above project has been approved as submitted for ethical review by or on behalf of SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical appraisal/clearance. SUHREC must be notified immediately or as soon as possible thereafter of (a) any serious or unexpected adverse effects on participants and any redress measures; (b) proposed changes in protocols; and (c) unforeseen events which might affect continued ethical acceptability of the project.
- At a minimum, an annual report on the progress of the project is required as well as at the conclusion (or abandonment) of the project. Information on project monitoring and variations/additions, self-audits and progress reports can be found on the Research Internet pages.
- A duly authorised external or internal audit of the project may be undertaken at any time.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the Swinburne project number. A copy of this e-mail should be retained as part of project record-keeping.

Best wishes for the project.

Yours sincerely,

Sally Fried

Secretary, SHESC1

8.4 Ethics Declaration

I, Daniel Joseph Dunne, declare that:

- All conditions pertaining to the ethical clearance for **Following the Fallout: Narrative structures in a videogame franchise**, were properly met, and,
- That annual and final reports have been submitted.

Signed

Date

8.5 *Fallout* Metacritic scores

Aggregate review scores	
Game	Metacritic
<i>Fallout</i>	(PC) 89
<i>Fallout 2</i>	(PC) 86
<i>Fallout 3</i>	(X360) 93 (PC) 91 (PS3) 90
<i>Fallout: New Vegas</i>	(X360) 84 (PC) 84 (PS3) 82
<i>Fallout 4</i>	(Xbox One) 88 (PC) 87 (PS4) 87

8.6 Fallout Awards

Game	Metacritic
<i>Fallout</i>	<i>Gamespot</i> RPG of the Year (1997) <i>Computer Gaming World</i> Role-Playing Game of the Year (1998) <i>PC Gamer</i> 4 th Best PC Videogame of All Time (2001) <i>PC Gamer</i> 10 th Best PC Videogame of All Time (2005) <i>PC Gamer</i> 13 th Best PC Videogame of All Time (2007) <i>PC Gamer</i> 21 st Best PC Videogame of All Time (2008) <i>PC Gamer</i> 4 th Best PC Videogame of All Time (2010) <i>IGN</i> 5 th Top PC Videogame of All Time (2007) <i>IGN</i> 19 th Top PC Game of All Time (2009)
<i>Fallout 2</i>	<i>PC Gamer</i> 3 rd Best RPG of All Time (2015) <i>GamesRadar</i> 68 th Top Videogames of All Time (2013) <i>IGN</i> 28 th Best Role-playing Videogame Ever (2013)
<i>Fallout 3</i>	9th Annual Game Developers Choice Awards Game of the Year (2008) 9th Annual Game Developers Choice Awards Best Writing (2008) <i>IGN</i> Game of the Year (2008) <i>IGN</i> Best Xbox 360 Game (2008) <i>IGN</i> Best RPG (2008) <i>IGN</i> Best Use of Sounds (2008) <i>GameSpot</i> Best PC Game (2008) <i>GameSpot</i> Best RPG (2008) Golden Joystick Award Ultimate Game of the Year (2009) Golden Joystick Award PC Game of the Year (2009)
<i>Fallout: New Vegas</i>	<i>IGN</i> Most bang for Your Buck of 2010 (2010) Golden Joystick Award RPG of the Year (2011)
<i>Fallout 4</i>	Golden Joystick Award Most Wanted Game (2015) <i>Gamespot</i> 6 th Game of the Year (2015) <i>GamesRadar</i> 4 th Game of the Year (2015) <i>GamesRadar</i> People's Choice Award (2015) <i>EGM</i> Runner-Up Best Game (2015) <i>PC Gamer</i> Best Setting (2015) <i>Game Critic Awards</i> Best of Show (2015) <i>Game Critic Awards</i> Best PC Game (2015) <i>Game Critic Awards</i> Role Playing Game (2015) <i>IGN</i> Runner-Up PC Game of the Year (2015) <i>IGN</i> Runner-Up Xbox One Game of the Year (2015) <i>D.I.C.E. Awards</i> Game of the Year (2015) <i>D.I.C.E. Awards</i> Outstanding Achievement in Game Direction (2015) <i>D.I.C.E. Awards</i> Role-playing/Massive Multiplayer Game of the Year (2015)

9 List of Publications

- Butt, M.R., & Dunne, D. (2017, July). *Rebel Girls and Consequence in Life is Strange and The Walking Dead*. Paper presented at the DiGRA Conference 2-6th July 2017 Melbourne, Australia. Retrieved from http://digra2017.com/static/Extended%20Abstracts/62_DIGRA2017_EA_Butt_Rebel_Girls.pdf
- Copplestone, T., & Dunne, D. (2017) Digital Media, Creativity, Narrative Structure and Heritage. *Internet Archaeology* 44. doi:10.11141/ia.44.2
- Dunne, D. (2014a). Brechtian Alienation in Videogames. *Press Start* 1.1, 79-99. Retrieved from <http://www.press-start.gla.ac.uk/index.php/press-start/article/view/8>
- Dunne, D. (2014b). *Paratext: A more interactive movement*. Paper presented at DiGRA Australia. 18-20. Retrieved from http://digraa.org/wp-content/uploads/2014/06/18_dunne.pdf
- Dunne, D. (2014c). Multimodality or Ludo-Narrative Dissonance: Duality of Presentation in Fringe Media. In K. Blackmore, K. Nesbitt, & S. P. Smith (Eds.), *Proceedings of the 2014 Conference on Interactive Entertainment*. New York, NY: Association for Computing Machinery. doi: 10.1145/2677758.2677785
- Dunne, D. (2016a). The Scholar's Ludo-Narrative Game and Multimodal Graphic Novel: A Comparison of Fringe Scholarship. In A. Connor (Ed.), *Creative Technologies for Multidisciplinary Applications* (pp. 182-203). Hershey, PA: IGI Global.
- Dunne, D. (2016b). Paratext: The In-Between of Structure and Play. In C. Duret & C. Pons (Eds.), *Contemporary Research on Intertextuality in Video Games* (pp. 274-296). Hershey, PA: IGI Global.
- Dunne, D. (2016c). *The Fallout of Narrative Agency: what players want*. Presented at DiGRA Australia: Tensions, Melbourne, Australia.