

Physical Spaces and Temporal Plots: Narrative Techniques in Bioware's CRPGs

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A research Paper submitted to the University of Dublin,
in partial fulfilment of the requirements for the degree of
Master of Science Interactive Digital Media

2013

I declare that the work described in this research Paper is, except where otherwise stated, entirely my own work and has not been submitted as an exercise for a degree at this or any other university.

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I would like to acknowledge the assistance of my supervisor, Marguerite Barry, in the development and completion of this research Paper.

Summary

This research paper seeks to explore the relationship between linear narratives and player agency within the context of computer roleplaying games (CRPGs).

Specifically, the CRPGs chosen as case studies are three created by or related to the work of Bioware Corp.: *Baldur's Gate* (1998), *Planescape: Torment* (1999) and *Dragon Age: Origins* (2009).

The purpose behind choosing Bioware Corp. as a developer, and these games in particular, is that they provide a cross-section across a decade of development within the CRPG genre. From its position as a new developer of video games in 1998, Bioware had grown to an genre-leading position by the release of the most recent game studied. Thus this paper is also an examination of the reasons for this success.

The methodology for the case studies is developed through a close examination of the literature relating to the role of narrative in games, the CRPG genre in particular and Bioware's work within this genre. The resulting methodology draws primarily on Bioware's own methodology of game design but also some proposed techniques within the scholarly literature.

Each of the three games is examined in detail, with attention paid to the techniques the developer used to integrate narrative and gameplay. These techniques are considered in the areas of interface, exploration, development and challenge. The games are examined both individually and in the context of developments in the genre.

Findings reveal how these techniques have evolved over time and demonstrate that conflicts between player agency and a pre-scripted narrative can be resolved through thoughtful design and integration of the two elements. These findings are discussed, and some suggestions for further research are provided.

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Glossary of Abbreviations

Some of the terms used within this essay are explained below.

RPG: Roleplaying game. A pen-and-paper collaborative storytelling experience, employing a set of rules to make decisions.

CRPG: A computer RPG. Often, but not always, based on or influenced by pen-and-paper RPGs.

Games master: In RPGs, the arbiter and storyteller responsible for running the game. In CRPGs, this part is taken by the computer.

PC: Player character. The representative or avatar of a given player within the game world.

NPC: Non-player character. A character not controlled by a player within the game. In pen-and-paper RPGs, controlled by the games master. In CRPGs, controlled by the computer.

Companion: A specific class of NPC within CRPGs, denoting one who accompanies the PC through the game story. Also controlled by the player, to a degree.

Introduction

All games have two authors: the game developer and the player. The developer establishes the rules by which the game is played, and the player exerts their own agency within these rules. The use of the term ‘narrative’ with regard to games is disputed and overly broad (Pearce, 2005), but all games can be said to have some form of narrative. The simplest, in such games as *Tetris*, can be expressed in a single sentence: “Stack falling blocks without leaving gaps.” The most complex can exceed the length of many novels.

Whereas novels, films and television are suited to the presentation of linear narratives, games require engaged participants (Frasca, 2007). This requires a new consideration of narrative, but a strong narrative is not inherently detrimental to a game. The computer roleplaying game (CRPG) genre is one of the most story-centric genres of computer games, yet titles within this genre regularly sell millions of copies and receive glowing reviews and industry awards.

As in all games, player agency in CRPGs is limited by game design. In games with limited narratives, the player’s actions can constitute the whole of the game. The goal is to excel within the game rules. However, CRPGs must offer gameplay freedom without the player feeling constrained by a pre-scripted narrative.

One potential approach is branching narratives, in which a player’s choices direct them through alternative versions of a narrative. This approach offers perhaps the greatest degree of player agency. However, it places great demands on the developer, who must cater to every potential choice. Additionally, branches multiply as the narrative continues, meaning that the lengthy narratives found in CRPGs are particularly demanding.

Alternatively, games can present a defined, linear narrative and permit the player the appearance of agency within the story. This can allow for a richer story on a limited budget, but each playthrough of the game will follow the same course. In this approach, the narrative is merely a frame to provide context to gameplay interactions.

Many CRPGs have aimed for a middle way: a narrative that accommodates player agency within a rich, partially linear story. One of the most successful developers within this genre is Bioware, a Canadian company that has been creating award-

winning CRPGs since 1998. Bioware's games take place within a "narrative space" containing numerous plots, with one central plot elevated above the areas. This central plot limits the narrative space and must be completed for the game to end. Thus I will use the term "imperative plot" when discussing it.

As Pearce discusses (2005), there is a difference between the narrative space that the player is allowed to explore and the plots that give shape to their experiences. The former is physical and may be explored more or less freely, whereas the latter is temporal, providing player actions with a sense of consequence. These consequences can be multi-ended, as in branching narratives, but as they are smaller elements within a larger game, these consequences are manageable.

Narrative space and temporal plot can feed back into one another: the unfolding of a plot may open up new narrative space, and exploration of the narrative space may reveal new plots. The interaction between these two elements opens up a "possibility space" in which the player has freedom of action. This freedom is limited by the decisions of the game developer, but it still exists within numerous axes, all of which will be explored.

Over the course of a decade, Bioware has delivered many award-winning CRPGs, featuring large narrative spaces and a multitude of plots. The aim of this paper is to explore how its techniques for doing so have changed over this period by examining several games either by Bioware or using Bioware's technology. However, first it is necessary to examine the scholarly literature relating to the use of narrative in games and to CRPGs and Bioware in particular.

Approaches to the Study of Gaming Narratives

Narrative versus Games

Early scholarly discussion of the role of narrative in digital games focused on the conflict between the nature of games and the nature of narrative entertainment. For example, Eskelinen has described stories as “uninteresting ornaments to games” (2001). In opposition, Mukherjee notes that games can be read as works of literature that can be played (Mukherjee, 2008).

However, this confrontation appears to have eased, with such champions of ludology as Jesper Juul (2001) accepting that the claim that games and narrative are unrelated is untenable. A less confrontational attitude allows for a more nuanced examination of the role of narrative in digital games. Pearce (2005) decries the use of the term “narrative” as overly broad and instead uses “plot” to describe narrative schemes.

The role of the player as co-author in game narratives means that games tell stories in a different manner to linear media, such as books and films. Jenkins (2004) argues that games privilege “spatial stories”, in which exploration is more important than plot development. In such interactive dramas, users have to be able to participate as active characters (Laurel, 1991). However, the player engaging in a game can only do what the game design and rules permit (Carr et al., 2006).

Nonetheless, a player encountering a game world for the first time does experience a sense of agency, even if this feeling of being in control is in fact an illusion (Simons, 2007). This sense of agency can be revealed as false during subsequent playthroughs of the game: the player learns that apparent choices lead to the same conclusion. Although some efforts have been made to examine how interactive narratives might best accommodate player agency (Hammond et al., 2007), the specific techniques that games designers use to generate the sense of agency within a closed narrative—the focus of this paper—have yet to be closely studied.

No definitive methodology for studying the role of narrative in games has yet been established. Hall & Baird (2008) examine the game narrative in terms of the 36 dramatic situations identified by George Polti in the 19th century (Polti, 2007). This approach rates the quality of a game’s narrative by how many of Polti’s dramatic

situations it uses. The drawbacks of this approach are its arbitrary choice of using Polti's taxonomy rather than that of any other narrative theorist and its lack of engagement with the mechanics by which the player interacts with the game.

In contrast, Consalvo and Dutton (2006) break games down into four elements suitable for study: an inventory of the objects encountered in the game; the design of the interface that the player uses to interact with the game; the interactions that the player has with characters within the game, and a log of the activities during the gameplay process. This approach creates a comprehensive overview of a game's content and mechanics. However, its weaknesses include the self-admittedly "nebulous" final category of gameplay log, which covers everything not included in the previous three categories, and the concentration on enumerating the elements of a game without critically determining their success or failure. This paper will make use of some of its elements, with an eye towards its potential limitations.

Role of Narrative in Games

If narrative has been accepted as an element of digital games, the question of its proper role remains. Author-scripted narratives have been present in games since 1967, but narrative is only rarely under the control of the player (Williams, 2005). This has proven a problem for game narratives that rely on player responses, as the very interactivity that sets them apart from narratives in other media makes imparting a specific story to players problematic (Parker, 2009).

Kelly (2011) argues that a "sense" of story is more important to games than the ability to convey a traditional linear narrative. He states that for games writers, the ability to support this sense of story is vital. In this view, players participate in, rather than control, a wider game world. This approach allows for a broader view of game narratives, similar to Jenkins' spatial narratives (2004).

In such broader game worlds, stories consist of *events*, in the form of actions and happenings, and *existents*, in the form of characters and settings (Eskelinen, 2001). Although some of these *events* must be encountered and completed to finish the game, others are optional. The *existents* are the scenery that helps to set the stage within the narrative space. The broader story itself develops from the interaction of the player's

actions with pre-defined (authored) content. Within the narrative space, players select their own path towards the conclusion (Lindley 2005).

Within game worlds, there are many potential narrative structures (Lindley 2005) and the player's agency forms part of the aesthetic experience (Murray, 1997). Likewise, both the game and the player contribute to the creation of a personal identity within this game world (Carr et al., 2006).

Thus a game story can be seen as a key tool for developers in creating the narrative that the player experiences in the course of playing a game. Through such stories, games encourage empathy for the characters presented on screen (Parker, 2009). The completion of the game amounts to the completion of this broader narrative, which makes use of both quest structures and protagonists in the same way as traditional media (Juul 2001).

Narrative in CRPGs

Of all the genres in digital games, CRPGs are perhaps the most beholden to narrative. This genre is heavily influenced by pen-and-paper RPGs, such as Dungeons & Dragons (D&D), in which a human "games master" presents a world and story to the players, incorporating player choice. In CRPGs, the computer takes on this role, but whereas a human can react creatively to player choices, a computer can only present a limited universe, with a range of interactions pre-set by the developer.

Typically combining combat with detailed character interactions (Williams, 2005), CRPGs create a space within which players are free to explore many local stories, creating for themselves an overarching story that differs from those experienced by other players. This variability within the narrative space encourages multiple playthroughs of a game, in order to see all that it has to offer.

In less narrative-focused games, enjoyment of the gameplay is key to encouraging repeated plays. In CRPGs, the unfolding of the narrative is a key attraction. Thus CRPGs are notable for the lengthy time that players must spend to complete them, requiring game designers to pay attention to narrative flow in order to sustain player interest (Williams, 2005). The nature of such games as D&D is to present "life as a violent series of episodes", with this action differentiated through narrative,

interaction, and character advancement (Voorhees, 2009).

Within CRPGs, the combination of playing a role and experiencing narrative arcs is designed to encourage the player's engagement with and immersion in the created narrative spaces (Dickey, 2005). For example, in the derivative genre of massively multiplayer RPGs (MMORPGs), character design and the narrative environment, in fact, form the two main design elements. However, whereas MMORPGs tend to have thousands of short plot arcs, encountered briefly, single-player CRPGs focus on the uncovering of a larger narrative storyline (Dickey 2007).

Bioware's Methods

Although Bioware Corp. has a record of success within the CRPG genre (About Bioware, 2008), there is little academic literature specifically focusing on Bioware's output. Carr et al. (2006) briefly examine the presentation of created worlds within these games. However, the tools Bioware employs to create narrative-focused games with freedom of player choice have not been examined.

Bioware pays a great deal of attention to existing player archetypes—killers, achievers, socialisers and explorers—and in their games, they seek to provide for the needs of each player type. They also examine their own narratives along several axes, such as linear and nonlinear, passive and active, and internal and external, ensuring that the broadest range of potential stories are contained within their games' story space. In recent games, they have even experimented with the player's role, creating a distance between the player and their avatar in the *Mass Effect* series (Zeschuk & Muzyka, 2011).

In their games, Bioware have preferred to merge story and game into a more seamless experience. In order to do so, they have had to consider the choices that players would wish to make within the narrative and ensure that scripted outcomes do not prove uncertain or illogical. The philosophy that has developed is one in which the game is a sandbox, in which the story is the player's (Troisi, 2010). Although certain story elements remain consistent across playthroughs, the narrative path that the player takes can shift dramatically.

In interviews and talks provided to the media and the games industry, Bioware's

employees have provided a great deal of first-hand information on the creation of their games. This provides a useful resource for study. For example, the developers of the original *Baldur's Gate* game have spoken of how this game proved to not only update but also revive an at-the-time fading CRPG genre (GDC Europe, 2009).

Bioware's approach to game design, based on the four pillars of exploration, tactical combat, progression, and story, adopted during the development of *Baldur's Gate*, will provide a further source for the methodology of this paper.

Methodology and Case Study Selection

In order to examine narrative techniques, three CRPGs were selected and played through. The techniques that the game developer employed to engage the player and present them with a sense of agency within the game world and imperative plot were examined and their use across the three games compared. Online communities have developed “mods” for these games to add content or ensure compatibility with newer platforms. However, the original games provide primary sources for this research, and the versions of the games played were those developed by the game creators.

Online communities form a secondary source for the game analysis: playthroughs of these games typically take upwards of 40 hours, and not all of the content can be accessed during a single playthrough. Fan sites and documents¹ provide more information about both game content and structure.

Other games in the CRPG genre, or in competing genres, form another secondary source. These both compete with and are influenced by the games in this study. The case studies focus tightly on the central texts but other games that serve as illustrative counterpoints will be discussed.

Lastly, scholarly research relating to these games and to wider topics within the gaming field will be referenced. As noted earlier, research has focused on the broader topics of game narrative and player agency but has only rarely examined the games that are the focus of this study. In examining specific games as texts, this study aims to connect theories of game narratives with actual player experiences.

The four-pillar approach that Bioware has employed in its games development is the basis of the framework used to examine the games. This approach encompasses exploration, tactical combat, progression and story, but given that narrative is a central issue, the “story” category will be replaced with the “interface design” category from Consalvo & Dutton’s four-element breakdown of game content. Instead, all four elements explored will be viewed in the context of the game narrative. This approach aims to reveal Bioware’s approach to presenting the player with a sense of agency and how this approach has changed over the years.

¹ Specifically those available at <http://www.gamefaqs.com>

Why Bioware?

Analysis of an auteur's body of work is a common element of scholarly analysis in other media (such as film, television texts), but has received little attention in games studies to date. This may be because in the short history of the games industry to date, few developers focused on single genres have endured for long periods. Given that technological progress has a direct impact on the games industry, those that have survived have had to adapt their techniques.

Bioware is one such developer. Established in 1995, it entered the CRPG genre with *Baldur's Gate* (1998). This title sold over two million units on Windows PCs, and following its success, Bioware's major CRPG releases include *Baldur's Gate II* (2000), *Neverwinter Nights* (2002), *Star Wars: Knights of the Old Republic* (2003), *Jade Empire* (2005), the *Mass Effect* trilogy (from 2007) and the *Dragon Age* series (from 2009). Over the first decade of its existence, Bioware's games and those based on the game engines it developed sold more than 20 million copies (About Bioware, 2008).

Bioware's distinctive approach to the CRPG genre draws heavily upon its own prior work, experimenting with it through subsequent iterations. As such, it presents an ideal subject for a study of game development over time. In addition to its games, Bioware's willingness to discuss its methods at games industry events and with the media provides further primary source material for the following case studies.

Why Baldur's Gate?

Published in 1998 after a lengthy development period, *Baldur's Gate* (BG) arrived at a time when the western CRPG genre was stagnant. It proved an immediate success, selling over 2 million copies for PC (About Bioware, 2008). Sequels and derivative works, such as *Baldur's Gate II* and the *Icwind Dale* series (from 2000), were likewise successful. It has been the subject of a recent redesign and relaunch², though the original version remains available through official sources and well

² *Baldur's Gate Enhanced Edition*, Overhaul Games, 2013

supported through fan groups.

Several features of *BG* make it suitable for examination as the starting point of a longitudinal case study. The production team were largely unfamiliar with the development side of the games industry and thus approached the CRPG genre with fresh eyes. Although its sequels and subsequent games saw some of its less successful features altered, it was the template for the strong narrative games that Bioware would develop in subsequent years.

Why Planescape?

Released in 1999, *Planescape: Torment (PS)* was not a Bioware game but was built with the same technology using much of the same background material. It was developed by Black Isle Studios, a developer that had a close relationship with Bioware (Keefer, 2004). Black Isle shared many of the same resources as the *Baldur's Gate* development team, but the game they created was different in many ways.

PS remains both critically acclaimed and popular among players for its extremely detailed storyline and supporting characters. Although profitable, it was not as successful as *BG* (None, 2007). Nonetheless, it was named RPG of the Year by both *GameSpot* and *Computer Gaming World*, and the techniques it employs found their way into later Bioware releases.

In contrast to the combat and exploration focus of *BG*, narrative dominates *PS*, with the player at its heart. Thus *PS* demonstrates an alternative approach to CRPGs within the same genre, even between games that use the same technology and draw on the same source material.

Why Dragon Age?

Published in 2009, *Dragon Age: Origins (DA:O)* was promoted during its development as Bioware's return to the fantasy genre, and specifically as a spiritual successor to *BG*. The game continues to use Bioware's four pillars, albeit with techniques refined over more than a decade of producing CRPGs. As such, it provides an opportunity to learn how Bioware's methods of narrative presentation and player

engagement were refined over the years.

DA:O was another example of a successful Bioware CRPG and one that introduced innovations into the genre, such as multiple origin stories for player characters. This expands the potential story space but presents the developer with challenges that would have to be resolved elsewhere in the game structure.

Bioware was already seen as an industry leader at the time of the release of *DA:O* and there is a great deal of research material to draw on in the form of interviews and talks focusing on the development process. This information provides valuable insights into the sometimes opaque process of games development.

Taken together, these three games offer a view of the development of the CRPG genre. *BG* and *PS* were released within a year of each other, using the same technology but taking different approaches to their presentation of narrative content. *DA:O* covers much of the same ground in the context of a decade of development of both technology and techniques. The commonality between the three games makes them ideal subjects for this study.

Baldur's Gate

Published in 1998 by Interplay Entertainment, *Baldur's Gate (BG)* was heavily based on the Advanced Dungeons & Dragons (AD&D) pen-and-paper RPG, employing its ruleset and its "Forgotten Realms" fantasy setting. Created by a team with little experience of making computer games, it sold over 2 million copies on the Windows PC platform (About Bioware, 2008). It inspired not only a successful sequel (*Baldur's Gate II*, 2000) but also a new wave of CRPGs, many of them based on the engine it used.

BG was not wholly original: Strategic Simulations Inc. had released CRPGs based on the Advanced Dungeons & Dragons settings and ruleset between 1988 and 1995. However, increasing computer power was enabling more sophisticated graphical and audio techniques, and Interplay's *Fallout* (1997) was the first of a new breed of real-time RPGs. Another contemporary real-time CRPG, Blizzard's *Diablo* (1996), was far more action-oriented, with a linear narrative that limited player choices to combat-affecting issues.

Interface:

BG is visually rich by the standards of the day. Exclusively available for Windows PCs on its release, its pre-rendered backgrounds made the most of limited monitor resolutions, and it came on five CD-ROMs that also included audio and video content.

The interface supports the game's narrative, using stone and metal textures to evoke a western European medieval feel. The controls share in this theme and take up three sides of the screen. At standard resolutions, this makes the tactical window, in which combat and exploration takes place, too small to depict the field of view of the characters under the player's control (Figure 1).

The intrusive control surfaces do offer one element to encourage player engagement: full-colour portraits of the PC and companion NPCs. These portraits are smaller versions of portraits that can be viewed in the personal information pages for each character and are a constant reminder of the members of the party the player has assembled.

The tactical window offers an axonometric³ third-person view of the game world and is the main location for player input. Here they can see the location of characters, NPCs and enemies within the pre-rendered backgrounds and give them orders both within and outside combat. Numerous sub-windows can be opened from the control bars, providing further information and tactical options.

The game also uses ambient sound to enhance its immersive quality. The sounds of a bustling town can be heard when the player is in an urban setting, monsters can be heard off-screen, and thunder and weather noises can be heard during rainstorms. These rainstorms also feature graphical effects—flashes of lighting and a rain overlay, obscuring the screen. Completing the illusion, characters can even be struck by lightning.

A key element of *BG*'s sound is the use of banter. NPCs within the party audibly comment on the player's actions and their morality, depending on their preferences. They also converse with each other, and will even turn on one another if of opposing outlooks. Non-companion NPCs also utter such banter, commenting on the player's actions and other issues. This dialogue not triggered by player actions enriches the sense of a world in motion and reflects changes in the narrative over time.

Video in the game is reserved mostly for cut-scenes introducing new areas, as well as the introductory cinematic that players see when they open the game. New chapters of the story are introduced by scrolling text boxes and voiceovers, backed by static artworks.

Text is the player's main mechanism for interacting with the narrative. Interactions with NPCs are handled by following paths through pre-set, branching conversations. These branching conversations are not typically deep, but they offer the player opportunities to choose different paths: to go looking for a fight or avoid one, or to choose sides within someone else's conflict.

³ A form of parallel projection in which an object is rotated along one or more of its axes relative to the plane of projection. Objects drawn with this projection do not appear larger or smaller as they extend closer to or away from the viewer.

Exploration:

Exploration in the game takes place within the physical space of the game world and the temporal space of the narrative. The axonometric viewpoint and free-roaming gameplay give the impression of a world to be explored. The game maps are blacked out whenever a player visits them for the first time, only to be permanently revealed as they are explored. Similarly, the map of the game world is gradually filled in as the player explores new areas. What is explored stays explored, a permanent mark of the player's passage within the game.

The game world in *BG* is arranged hierarchically. The top level is the world map, in which icons represent various areas (Figure 2). Each of these areas can be explored in the tactical window, and some contain smaller locations for the player to explore. Typically, these do not appear on the world map and must be reached through the area they are linked to.

The player's access to this part of the game is limited in various ways. Hard restrictions exist in which certain areas of the game world cannot be reached until points in the imperative plot are passed: The tutorial takes place in a small area, and once it is complete the game world proper opens up. Thus, the physical space of the game world and the temporal space of the imperative plot are loosely linked.

A softer restriction exists in the form of difficulty: certain areas of the game are initially too dangerous to enter. These areas act as lures and rewards to players who improve their party with equipment and experience. Players who engage with the game mechanics and experiment with more effective tactics can defeat more difficult enemies. For example, fighting spiders is much easier if the player has stocked up on antidote potions beforehand.

The fact that every area within the game holds some form of treasure or reward encourages thorough exploration of the game world. These rewards include new companion NPCs and chests full of rare or valuable treasures. However, few of these are signposted and in some cases they are almost impossible to find without outside help⁴.

⁴ For example, single-pixel treasure caches placed in the game as "Easter Eggs" by the developers.

The narrative is as open to exploration as the game world's physical space. Most areas within the game, especially those representing cities and villages, are filled with NPCs that players can converse with. Talking to some of these NPCs can open up the many sub-plots unrelated to the overall storyline of the game, further fleshing out the game world. Pursuing these subplots provides a sense of change over time, but once the player has exhausted the interactions available in an area, the game cannot generate new content.

Development:

The character creation process, based on the AD&D 2nd Edition rules, is complex and has a huge impact on how the player experiences the game. All players begin at the lowest level of experience, first level, but they can customise their PC in many ways before they do so: gender, race, class, alignment, attributes, skills and appearance. Further replicating the pen-and-paper experience, the PC's attributes are filled in on a virtual "character sheet" as they are chosen.

The levelling mechanic within the game is the main form of development for the player. Within the game, the player gains experience through combat and quest completion, and once enough experience is gained, the PC and their companions will rise a level, becoming more capable and gaining access to new skills. Within this progression, the player has some choice as to assigning newly learned skills and even in choosing to change a character's class.

Constructing a balanced party also forms part of the game's development system. Throughout the game, the player can recruit many companion NPCs. A balance of classes, melee and support, is vital to succeeding within the game's combat system, but the player must also choose companions with matching viewpoints. NPCs will react to the player's reputation score and abandon him if it climbs too high (if they are evil) or falls too low (if they are good).

In contrast, the imperative plot is not open to development over the course of the game. The player uncovers a grand scheme and thwarts it at several points, but there is no real choice as to how they do so. The imperative narrative of the game is fixed, and for the player to progress, they must thwart the scheme, uncover the secrets and

progress to the final showdown. Whereas the physical narrative space of *BG* offers plenty of opportunities for development, the temporal imperative plot constrains the player.

Challenge:

Within the game, tactical combat is the most common form of challenge. This combat takes place in the tactical window, in a pseudo-real time format. Players give orders as to where characters go, who they attack or what spells or items they use. Success in the game is reliant on the player learning the capabilities of the NPCs they recruit to their group. A metal-clad fighter will be more successful in hand-to-hand combat than a wizard, who is vulnerable but capable of swaying the course of a battle if protected.

This faithfully reflects combat in the AD&D setting, to the point of removing control from the player if their characters suffer morale failure or the effects of certain spells. This transgression of the player's sense of agency works within the context of the game world—the player can do the same thing to his enemies. Thus, the sense of a consistent world affected by the player's actions is enhanced. The world can strike back, and the player is at the same level of vulnerability as the rest of the world.

However, another game mechanic clearly privileges the PC. Whereas other members of the group can die (at least temporarily) in combat without affecting the flow of the game, the PC's death forces the player to reload from a previously saved game. Within the game narrative, the PC is a required factor, but forcing the use of the “save game” mechanic (repeatedly, unless the player is extremely cautious, tactically astute and fortunate) harms the sense of consequence in the game world.

The level of challenge is constant: players can be ambushed when travelling or attacked while resting in an area. However, spending too long without resting is similarly unwise: characters become tired after a time, reducing their effectiveness, and must rest in order to regain health and restore their stock of spells and prayers. Battles with particularly powerful enemies often force the player to rest, suggesting a realistically dangerous world.

Compared to combat, narrative presents a lesser challenge. Over the course of the game, the player unravels the truth of their own parentage and nature, with plenty of clues provided before the final reveal. The story is presented as one of war and treachery, but it is also one of self-discovery. However, the size of the game world is such that the player can ignore the main narrative for long periods. Only once the majority of the game is explored does the narrative come to the fore, as the player's options narrow down to the confrontation that ends the imperative plot.



Figure 1: Baldur's Gate in play



Figure 2 Baldur's Gate World Map

Planescape: Torment

Published in 1999, *Planescape: Torment (PS)* stands outside the Bioware line of CRPGs in several ways. It was developed by Black Isle, another developer of CRPGs under the banner of Interplay Entertainment. During its development, Bioware and Black Isle shared technology and resources, and *PS* uses the Infinity Engine that powered most of Bioware's early CRPGs. However, Black Isle employees had earlier developed the post-apocalyptic CRPG *Fallout*, which set the stage for *BG* and subsequent CRPGs.

With *PS*, Black Isle took greater liberties than Bioware with the AD&D ruleset and used the less traditional Planescape setting. The result was a game that appealed to a narrower audience, but thanks to the strength of its storyline and its unusual design, it gained critical acclaim and continues to be considered a classic of the genre⁵.

Black Isle would not enjoy Bioware's long-term success: Interplay closed the division in late 2003. However, many of its staff went on to work for Obsidian Entertainment, which created sequels to the Bioware games *Star Wars: Knights of the Old Republic* and *Neverwinter Nights*, maintaining the link between the two developers.

Interface:

PS sets out to unsettle the player and inform them that they are not playing a traditional game. The use of complicated, spiky metalwork in dull and rusted tones, together with vivid purples and reds, is off-putting from the title screen onwards. This suggestion of the game's unusual setting extends even to the text used on this screen: the option to quit the game is labelled "The Abyss" (Figure 3).

As with *BG*, the interface is intrusive, taking up much of the limited screen space beneath the tactical window, but one notable interactive touch is added. Rather than being static images, character portraits are animated representations that react to

⁵ It received Game of the Year Awards from GameSpot and Computer Gaming World and has a ranking of 91 out of 100 on the Metacritic site, which collates games reviews.

player actions, becoming more bruised and bloody as the PC or companion NPC's health level declines.

Black Isle made an effort to reduce the need for players to navigate through multiple windows, with a menu wheel that appears when the player right-clicks on a character, presenting several command options. However, the number of windows reachable from the main game interface remains high. For example, the "journal" window offers information on quests, the player's experiences through the game and the NPCs and monsters that the player has encountered. All are lavished with artwork and plenty of text. Most of this detail is relevant to the game's imperative plot, but in some cases it exists purely to expand the sense of the game world's narrative space.

Sound and video are supporting elements in the narrative. The game features around 800,000 words of text (Griliopoulos, 2009), but many major NPCs in the game are at least partly voiced, with the first sentence of a large piece of text often being presented in both audio and text formats. Atmospheric audio is fitted to the areas the player is exploring, and the soundtrack reacts to the circumstances of the game, such as combat or important encounters.

Exploration:

The hierarchical depiction of the game world resembles that of *Baldur's Gate*. The world map contains explorable areas, which in turn contain smaller locations. At the start of the game, only a small amount of the game world is accessible, but as the player progresses in the imperative plot, new areas open up. The areas, as depicted in the tactical window, are also obscured until explored, at which point they can be viewed on the area map screen, with points of interest indicated (the player can also append their own notes to the map screen). Thus, temporal progress and physical exploration are linked.

Most exploration of the game takes place within the axonometric viewpoint of the tactical window. Here, in addition to objects and characters that they can interact with, the player will come across numerous items that they can examine, indicated by the cursor gaining a question mark when it hovers over them. Much of the game's alien world is explorable in this way, with occasionally grotesque descriptions leavening

the large amounts of text with a degree of humour.

The tutorial, instructing the player as to how they can move within and manipulate the world, is carefully integrated into the game story. The PC wakes as an amnesiac, knowing no more about the world than the player, and they learn together.

A particular notion of the game is the exploration of the video game trope of “multiple lives”. When the PC dies within the game, they are typically reborn where they began it. In fact, the PC has died and been reborn many times before, and these non-player-controlled lives constitute much of the backstory for the game took place. To a large degree the player is also exploring the PC’s own history in order to unravel the mystery of their nature and fate. This unusual melding of game mechanic of death with the narrative provides an idiosyncratic setting with a pleasing degree of internal consistency.

The player is not the only one to engage in this search for meaning. Throughout the course of the game, they encounter and have the option to join numerous factions, each of which is united by a particular philosophical take on the universe they inhabit. For example, the first encountered, the Dustmen, believe that true death, in which all emotions and desires cease, is a desirable state, and that life is a thing to be endured and passed through.

This philosophical exploration mirrors the internal exploration the player is prompted to undertake throughout the game. The key question that the game asks of its protagonist, and the player, is “What can change the nature of a man?” The answer to this question within the game narrative is “belief”, but it is not necessary for the player to come to this conclusion, or even to care about the question, to complete the game. The imperative plot moves to the same confrontation regardless of the player’s choices, but their actions throughout and their choices within the final encounter affect the outcome.

A final axis of exploration lies in the companion NPCs that the player gathers to their party throughout the course of the game. These characters have their own complex histories, some of which incorporate the PC’s prior incarnations. Throughout the game, the player can initiate conversations with these companions and learn how these stories interrelate.

Development:

Character creation in *PS* is simpler than that of *Baldur's Gate*. The player is presented with the six attributes used in the AD&D ruleset (strength, dexterity, constitution, intelligence, wisdom and charisma) but rather than assigning them randomly, they can supplement base values for each with a store of points. This is the only element of the player character open to player choice at this stage: name, appearance, class and other attributes are pre-chosen.

Although these attributes are the only element of choice available within character creation, they are key to the experience of the game. If certain attributes are high enough, they unlock new avenues of conversation within the narrative. Notably, whereas games with a greater focus on combat encourage prioritisation of the physical attributes (strength, dexterity, constitution), *PS*'s heavy narrative elements weigh in favour of the mental and social attributes (intelligence, wisdom, charisma). At certain stages of the game, high scores in these attributes are vital to gaining the insights necessary to develop companions' abilities, or to persuade others to take a course of action.

Character advancement occurs within a levelling system, facilitated by experience points gained through combat, quests or conversations. When companion NPCs gain a level, their capabilities and fortitude increase. The PC also gains points to spend on attributes, potentially raising them above their initial maximum levels. These attribute increases can open otherwise inaccessible conversation options.

A great deal of the game's content is bound up in the conversations that the PC has with NPCs: both the companions that he gathers and other characters that he encounters. These conversations consist of both call-and-response sections in which player utterances are merely punctuation between long passages of expository text and genuine choices that the player must make, based on what they have learned (Figure 4). The game's many plots are mediated here, and the player's responses often prove critical: in most important confrontations there is a chance to talk one's way out of combat.

The alignment system likewise differs from that in *BG*. Rather than being

established at the outset, it alters from an initial position of neutrality in response to player actions: thus, the notion of the player character as a blank slate on which the player may inscribe their beliefs is strengthened. The PC's position on the lawful-chaotic and good-evil axes also feeds back into the game, affecting their relationships with NPCs and the outcomes of certain situations.

The limited cast of companion NPCs features a much broader set of interactions with the PC than is the case in *BG*. Although these are not truly intelligent actors within the game, their scripted responses do allow the player to both influence and enhance them.

Challenge:

Combat is a limited element of the game, and the notion of tactical combat that Bioware stresses in its games suffers as a result. Apart from a brief instance in the tutorial section that demonstrates the nature of the combat system, there are few examples of genuinely unavoidable combat. Although combat remains an option most of the time, it is rarely the best option in terms of either experience gained or narrative progress.

As a result, the main challenge within the game lies in the mystery being uncovered: the PC's nature and his past. Many of these challenges require the player to engage with the game's story, to explore their surroundings and companions and to make decisions based on what they have learned. A player who chooses alternate behaviours and attributes will experience the same events over the course of the game, but their outcome will change considerably.

The imperative plot is arranged in a series of chapters, with narrative bottlenecks that must be passed in order to move on to the next one. Within this linear scheme the player has a great deal of scope to make decisions and shape their experience. Choices made earlier in the game can limit the endings to the story the player may enjoy, but the game makes clear that although the story is the PC's, many other stories run in parallel: those of the companions and others NPCs that the player has encountered along the way.

In this way, the game actively challenges the player to consider the choices they are making. The game's repeated line "What can change the nature of a man?" raises questions of predestination that have surprising resonance within the limited story space of the game. This is aided by the setting, in which belief genuinely has the power to change the nature of reality. Although the game concludes with the PC's immortality ending, the player is given great latitude in their approach to this conclusion, as befits the nature of the narrative.

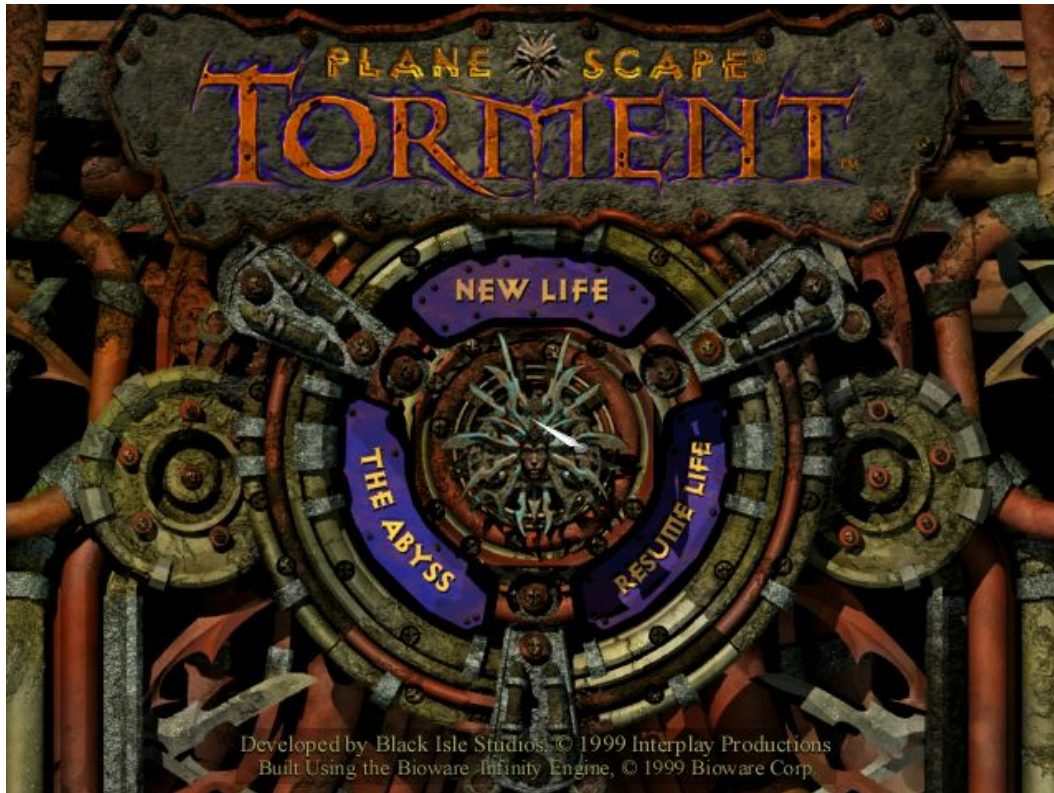


Figure 3 Planescape: Torment Title Screen



Figure 4 Planescape: Torment Conversation

Dragon Age: Origins

Published by Bioware in 2009, *Dragon Age: Origins (DA:O)* arrived just over a decade after Bioware's release of *BG*. During that time, the CRPG genre had undergone development driven partly by the increasing graphical power of Windows PCs and games consoles and partly by the emergence of the competing MMORPG genre. MMORPGs copied the explorable worlds and character development of CRPGs but tended to emphasise combat and relegate narrative to a supporting role.

During the intervening period, Bioware released numerous CRPGs, most of which proved sales successes, and each of which extended the company's reputation in the genre. This run of success culminated with *Mass Effect (2007)*, a fully voiced science-fiction action-CRPG, which proved an award-winning success on multiple platforms and created a new franchise for the company⁶.

DA:O was developed both as a return to Bioware's fantasy roots and as the opening chapter of a new franchise. Promotion of the game deliberately harked back to the fondly remembered *BG*, even though the game itself took place in an entirely original world and did not make use of the AD&D ruleset. The game proved a success upon its release, becoming Bioware's most successful game to date (Meer, 2010).

Numerous items of downloadable content were made available for *DA:O*, and the game itself received a sequel two years later. The version of the game discussed here is the full version of the original game, including the downloadable content.

Interface:

From the start, *DA:O* sets out to immerse players in its fictional world. The opening cinematic is an origin story for the warrior order that the player will join and the threat that they will face. Beginning with a stained-glass-style art that imparts a sense of antiquity, it segues into game-engine graphics, presenting a bridge to the action within the game itself.

The menu system through which the player accesses the main action of the game is dominated by atmospheric artwork, and as little as one click from the title screen is

⁶ Received Game of the Year from *The New York Times*.

required to enter the game. This effort to reduce the distance between the player and the game world extends to the onscreen controls. Taking a cue from controls in the MMORPG genre, they are user-configurable and minimal, confined to the borders of the screen and seeming to hover over the action rather than enclose it (Figure 6).

Within the game itself, NPCs are fully voiced, whereas the PC's dialogue is presented as text. This is in contrast to the dialogue system in *Mass Effect*, in which the PC is fully voiced but the player can only choose an emotion or attitude to express. Despite the lack of a voice, this is indicative of *DA:O* seeking to have the player identify with their character. In *Mass Effect*, the experience is of being a director of the story, whereas in *DA:O*, the player is the actor.

In real-time play, the player has a choice of multiple viewpoints. An over-the-shoulder view focused on the currently selected character provides an immediacy suited to exploration (most conversations use cinematic camera angles), whereas a top-down view proves more suitable for the tactical combat. This top-down view is reminiscent of that used in *BG*, and it is notable that the most zoomed-out view available in the various versions of the game was that on the Windows PC version, the original platform for *BG* and its sequels.

Simplification extends to the player's inventory. Items not currently in use by the PC or companion NPCs are added to a shared group inventory, rather than the character-specific inventories of *BG* and *PS*. This inventory does not change in volume depending on the number of characters currently in play, but it can be expanded through in-game purchases. A secondary storage area, unlimited but not constantly accessible, is available at the campsite area discussed below.

The interface through which the player accesses game information, such as inventory, quests, equipment and skills, is presented as a book. The game world is blurred and recedes into the background as the player "reads" it and makes any desired changes, then returns when it is closed. Thus, even in the "bookkeeping" exercises common to the CRPG genre, the player is never wholly separated from the game world. Although the changes the player can make are not always suited to the book metaphor, it is an effective method of integrating a control system for these elements (Figure 6).

The game's online element provides a means of tying together multiple

playthroughs. Each game owner has an online profile that records their achievements across multiple playthroughs. Thus, the player can participate in an online metagame connecting them to Bioware's online community. The degree to which they choose to participate is up to them, but it both encourages engagement with the game and marks their progress.

Exploration:

The game world is depicted in Bioware's traditional hierarchical fashion: a world map, containing icons that depict areas that the player can or has already explored. Each of these areas can be explored in real time, and some contain sub-areas of their own. The 3D graphics engine means that no fog-of-war exists, but map screens are still gradually filled in as the areas they depict are explored. In these depictions of physical locations, the player directs the PC and their party to encounter and fight enemies, converse with NPCs, discover hidden secrets and find their way to new locations.

One particularly important location is the "campsite". This area, not present in *BG* or *PS* but developed in intervening Bioware titles, appears on the world map and is an area in which all companion NPCs are present. Visits to this location serve as an opportunity for downtime between quests and combat. Here the player can interact with the companions, advancing their stories and the PC's relationships with them. The campsite is visited repeatedly and is always the same, regardless of where on the game map the PC was.

The companion NPCs that the player can gather are limited in two ways. Firstly, the number of companions is small. Secondly, only three of these companions can accompany the player outside the campsite at any one time, compared to five in *BG* and *PS*. However, each companion NPC has many branching dialogues through which the player can influence and learn about them⁷. The player's actions within the game world affect their relationship with the companions, and the companions can act as triggers for personal quests. Thus, personal plots advance independent of the imperative plot, providing a sense of progress to the narrative space.

⁷ Even the PC's dog can be interacted with, albeit in a more conversationally limited fashion.

The imperative plot also encourages exploration. Following the introductory missions, the player is tasked with seeking out allies against a great enemy but given the freedom to choose how to do so, and in what order. In this way, the “bottleneck” element of the narrative is spread out. The major quests for allies can lock the player in for a time, but upon their completion, the whole of the explored world is open again. Only as the narrative draws to its conclusion does the player become constrained, and it is at this time that the consequences of their choices up to this point begin to play out.

Development:

In creating a new character with which to experience the game, the player is presented with several screens that combine to define their character. These cover the traditional choices of gender, profession (warrior, mage and rogue) and race (human, elf and dwarf) as well as the less familiar option of “background”. This is a key concept for *DA:O*, as the combination of background and race is used to define the player’s origin story, through which they will be introduced to the game world.

Players can define their character’s appearance in great detail (Figure 5)⁸. This is of key importance to *DA:O*, in which the PC frequently appears in cut scenes. This character creation procedure could be seen as off-putting, but the investment it requires of the player does encourage emotional investment in the PC.

Further complexity comes from the range of skills—non class-based, mostly passive abilities—and talents—mostly class-based and active, offering the player extra options in combat—available to the player. These skills and talents are upgradable throughout the game as the PC increases in levels, though even the highest-level characters will not be able to develop all the options, thus encouraging repeated playthroughs of the game.

DA:O’s origin stories present the player with a key innovation. Most efforts at branching narratives start from a fixed point and branch outward as the narrative progresses. Here, players have a choice of six origin stories, defined by their race and

⁸ A feature copied from such competing CRPG titles as *Elder Scrolls IV: Oblivion*.

background choices, which merge at the first “bottleneck” in the narrative. Multiple origins leading towards the same point might seem to deny player agency, but this is not the case. The separate origin stories present individual story spaces, within which the player can make choices and ground themselves in the game world, and the choices made during the origin story are revisited throughout the narrative, enriching the player’s experience. Multiple playthroughs of the game reveal that each origin story pays off later in the narrative, providing PCs with personal motives for their actions.

The companion NPCs gathered throughout the game are deeply integrated into the imperative plot, and the player has the option to develop them throughout the game, both in terms of their abilities and in terms of their relationship with the PC. Once added to the player’s party, these characters remain available unless specific choices turn them against the PC. Through them, the game presents a nuanced version of the morality system common to Bioware games: each companion expresses approval or disapproval of the player’s choices based on their own personality.

Challenge:

DA:O has a highly fluid combat system, offering the same tactical options as earlier Bioware games. At any point in combat, the player can pause the action, observe their current status and provide new orders to their companions. This tactical depth is optional: at the lowest difficulty level, the player can eschew the pause option and allow the NPC AI to control their companions’ actions as they participate in real-time combat. However, the player can also define a list of behaviours for their NPC companions, or they can take direct control of them at any point.

With no right or wrong moral courses to take within the game, the degree of challenge that the player faces within the narrative depends on their desire to achieve a particular ending. A player who pursues a more self-centred, ruthless course will find it harder to attain ultimate success. However, the climactic encounter is not the whole of the narrative. Over the course of the game, the player will have encountered and affected many groups and individuals, and many of those choices feed into both the end of the game and its aftermath.

Although the physical space of the narrative frame narrows as the conclusion of the imperative plot is reached, the conclusion is spread out temporally into a series of encounters with multiple antagonists. This provides space in which player choice throughout the game can feed back into the narrative, which is necessary given the number of subplots that tie back into the imperative plot.



Figure 5 *Dragon Age: Origins* Character Generation

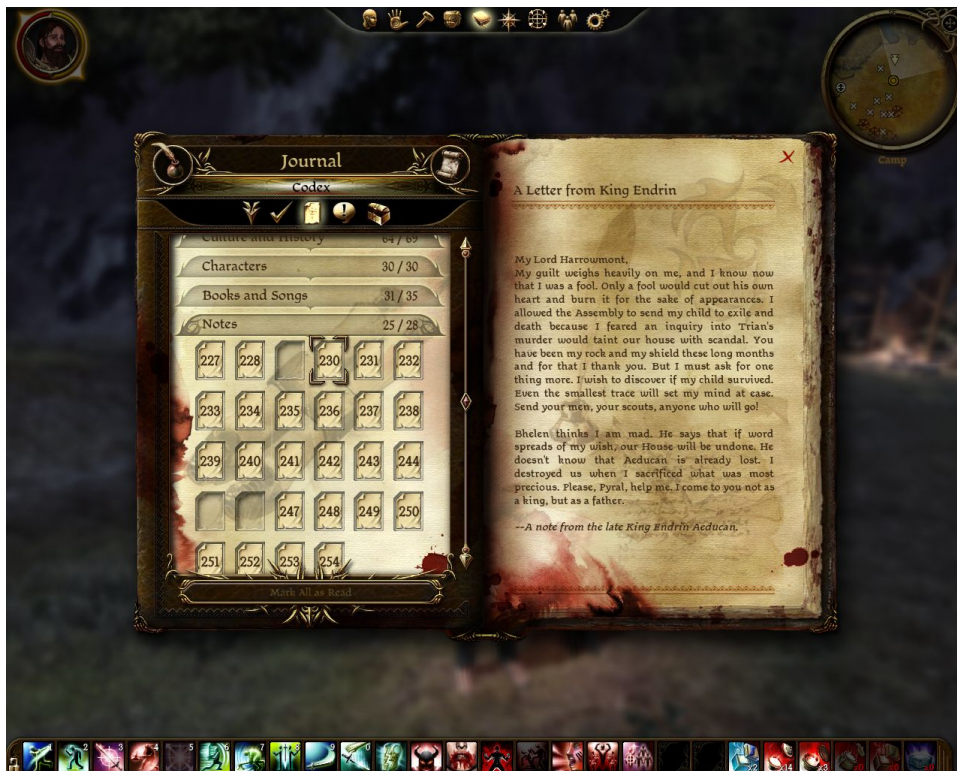


Figure 6 *Dragon Age: Origins* Lore Encyclopedia

Synthesis

The three games studied here share a common goal: the presentation of a compelling narrative space, in which the player can act within and experience a strong, character driven story. *Baldur's Gate (BG)* and *Planescape: Torment (PS)* stand at an inflection point in the history of the CRPG genre, when improvements in computer technology allowed for the exploration of visually realistic fictional worlds in real time. Their critical and commercial success demonstrated the appeal of such games.

A decade later, *Dragon Age: Origins (DA:O)* marked Bioware's return to the goals of these games and a chance to demonstrate advances in technology and the CRPG genre. The titles Bioware released in the intervening period, competing titles from other CRPG developers and the emergence of the MMORPG genre all contributed to the developments that *DA:O* demonstrates.

One element beyond the scope of this paper is that *BG* allowed players on different computers to participate jointly in the game. In contrast, *PS* and *DA:O* were solely single-player experiences. *BG*'s incorporation of multiplayer may have contributed to the looseness of its central plot. Managing multiple players within a fixed narrative is a design challenge that Bioware tackled in its *Neverwinter Nights* CRPG and *Star Wars: The Old Republic* MMORPG and is a potential area for further research.

Interface:

BG and *PS* were both limited by non-scalable raster graphics and small monitor resolutions. Although they use the same game engine, *PS:T* offers greater innovation in the form of its pop-up command interface and portraits that reflect a character's health. *DA:O* takes a step back from these innovations, but its modular controls borrow from the MMORPG genre, and higher resolution monitors allow its interface to appear to rest over the tactical display rather than surround it.

All three games show similar concern for integrating the narrative into the interface. *BG* employs a mediaeval, western-European theme, whereas *PS* employs a lurid colours and rusted metal to depict its alien setting. *DA:O* seeks to minimise its

interface where possible but follows *BG*'s lead in using graphical representations of scrolls and books to add atmosphere to the information it seeks to present to the player.

There is little to choose between the three games in terms of their interfaces. However, *DA:O* benefits from technological advances that enable more fully realised, three-dimensional worlds. The use of voice actors and CGI cutscreens in *BG* and *PS* is limited, but *DA:O*'s full voice acting and graphical engine capable of presenting dramatic moments provides genuinely cinematic moments.

Exploration:

The hierarchy of navigation established in *BG* is used in all three games. An overarching world map contains a number of areas and locations that the player can explore. The difference lies in how the three games open up this world to the player.

In *BG*, most of the game world is immediately available to the player once the prologue is completed (Figure 7), though some areas cannot be reached until a certain point in the imperative plot is passed and others are too dangerous until the player's party gains experience. This offers the player great exploratory freedom, but the physical space and the temporal plot are only loosely linked.

In contrast, *PS* ties physical space and temporal plot closely together, opening up its world in stages (Figure 8). The drawback of this approach is that exploration is limited by the linear nature of plot progression. Side plots offer some freedom, but the segments of the imperative plot must be completed in order. However, the game also develops temporal exploration as a key issue: an amnesiac PC trying to recover and understand his own past.

DA:O's combination of *BG*'s freedom with *PS*'s intertwining of physical space and temporal plot is more sophisticated. Most of the game world is open to the player from the beginning, but the elements of the imperative plot between the opening and climax are modular (Figure 9). Tying these modules together is a campfire area, where character relationships and subplots can be advanced. Thus the player is free to tackle segments of the imperative plot in any order, occasionally being "locked in" to an area until the associated plot is completed. This is a dramatic necessity: enabling

the player to put a moment of high drama on hold indefinitely would undermine the narrative.

All three games provide opportunities to explore the meta-story of the game world. *BG* attaches descriptive text elements to almost every item in the game. *PS* and *DA:O* use a superior method of building a curated “encyclopaedia” as the player progresses (Figure 6). Thus, game lore is no longer a transient encounter but a marker of player progression.

Development:

The levelling system in each game marks player progress by granting characters new abilities. In *BG* and *PS*, this system is based on the AD&D RPG system, whereas *DA:O* features a custom-built system, dropping some elements and expanding others.

Although *BG* allows players great freedom in creating their character, their choices affect gameplay rather than the narrative. In contrast, *PS* limits the player’s choices at character creation but in doing so ties the PC more closely to the narrative. This inverse relationship between player choice and narrative relevance is solved by *DA:O*’s origin prologues: the player fixes their character’s place in the world in concert with the game before the imperative plot truly begins.

The breadth of companion NPCs available and the range of abilities open to them affects the tactical depth of the game. In *BG*, a large number of companion NPCs opens a large tactical space and opportunities for development, but the NPCs themselves are limited in personality. *PS* has a strictly limited set of companion NPCs and a smaller space for tactical development, but they are highly developed and entwined with the narrative. *DA:O*’s cast of companion NPCs falls in the middle, offering greater tactical space than *PS* while enhancing the narrative space relating to each one.

DA:O also ties the morality system present in *BG* and *PS* to this cast of companion NPCs. *BG* sets character alignment at the outset, but uses a “reputation” mechanic to influence relationships with companion characters and the broader game world. In *PS*, alignment shifts depending on in-game actions. *DA:O* incorporates the consequences of the PC’s conversation choices and actions into their relationships

with companion NPCs. This is a more realistic game mechanic, but the game itself subverts it through the crude mechanic of gifts that boost relationship scores.

Challenge:

Combat is a constant element of all three games. In *BG*, a key player role is assembling and developing a group of NPC companions that are effective in combat based on the game's recreation of the AD&D rules. Progress through the imperative plot and the many subplots is largely limited by this group's ability to meet and overcome certain enemies.

PS uses a similar tactical combat system, but the staggered progression of the imperative plot means that the challenge is typically suited to the player's degree of progression. Further, most important encounters offer the player a chance to avoid combat. Instead, *PS*'s challenge can instead said to be requiring the player to engage with the game world and narrative space, especially to navigate its extensive dialogue trees in order to reach the outcome that most closely resembles success for them.

DA:O's focus on combat resembles *BG*'s. Although there are some opportunities to avoid or provoke combat, it is still used as the major form of challenge. However, within the narrative, players are also presented with choices between easy but morally questionable choices and harder paths. These choices are further influenced by the need to consider personal relationships: in at least one case, taking the easy path causes companion NPCs to turn on the player.

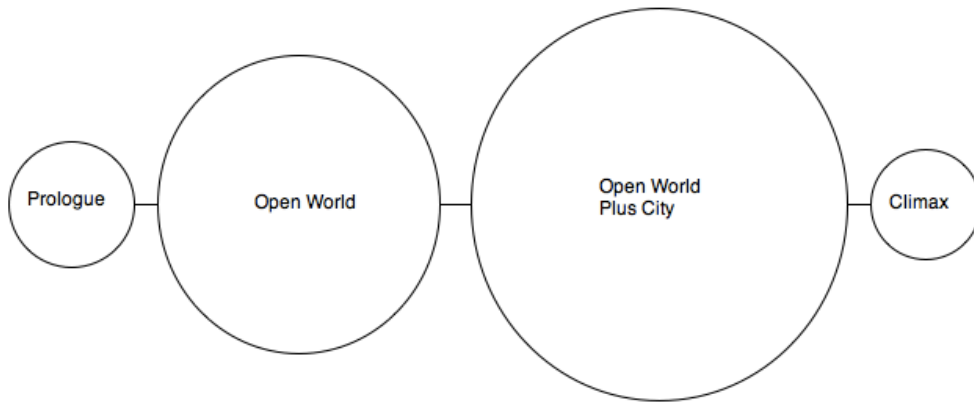


Figure 7 *Baldur's Gate* Narrative Schematic (Simplified)

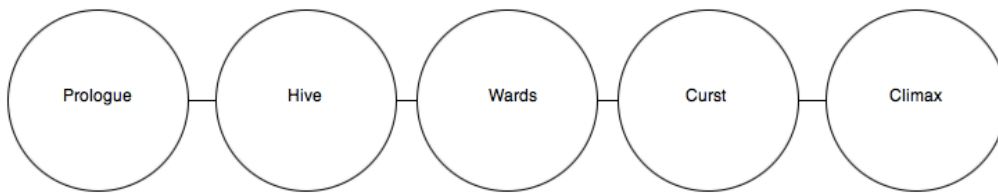


Figure 8 *Planescape: Torment* Narrative Schematic (Simplified)

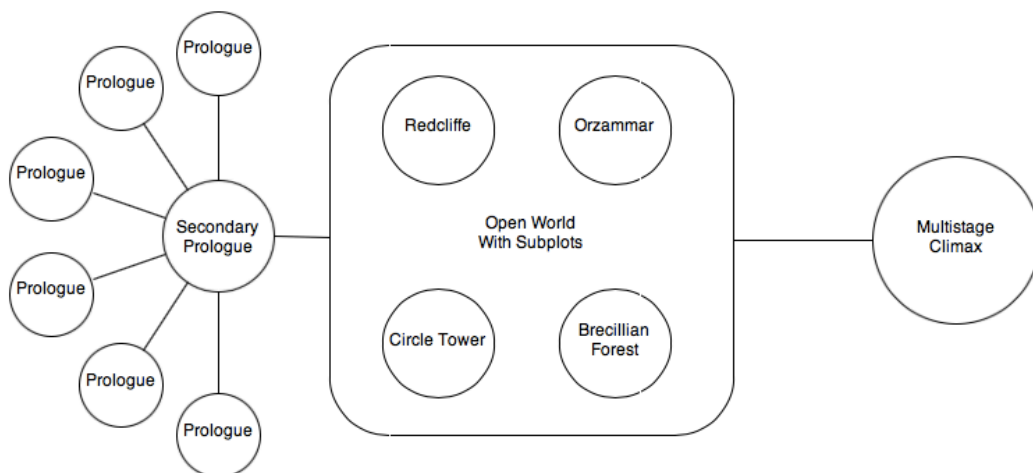


Figure 9 *Dragon Age: Origins* Narrative Schematic (Simplified)

Conclusion

BG's approach to presenting a narrative within a large physical space, bounded by a central imperative plot and containing numerous subplots, set the template for Bioware CRPGs afterwards. *PS* represents a related approach that places greater emphasis on a range of companion characters for the player to interact with. The sales success of Bioware's CRPGs indicates that this approach strikes a working balance between the narrative aims of the game designer and the desire of the player for agency within the physical space of the game world. The consequences of this agency play out within the temporal space of the imperative plot.

In *BG*, plot progression is downplayed in favour of physical exploration and conflict. The game itself forms a narrative space, bounded temporally by the beginning and end of the imperative plot and physically by the game world. Within this narrative space, the player can follow numerous subplots to their ending. These plots give the game a temporal shape, marking the player's progression through the narrative space.

In *PS*, the reverse is true. The game world gradually opens up as the imperative plot is followed, with each stage of the imperative plot corresponding to a new area to explore. The stronger central story reduces the game's reliance on random exploration but restricts the physical space available to the player.

Dragon Age: Origins strikes a balance by presenting a game world mostly open for exploration and innovating in the area of plot. Its imperative plot is broken into segments that can be completed in any order, with each tied to a specific area of the game world. Thus the consequences of each segment can be reflected in the game world, interweaving physical space and temporal plot and benefiting from the freedom of the former and the depth of the latter.

Perhaps the strongest area of development in Bioware's CRPGS is that of emotional connection. The use of companion NPCs has moved toward a smaller number of highly detailed personalities for the player to interact with. In *DA:O*, the player can construct relationships based on antagonism or affection, and these relationships, which play out over the course of the imperative plot, engage the player emotionally in the game.

The levelling system used as a marker of progression does not change greatly between the three games. In each case, a narrative rationale is provided: *BG* and *DA:O* see an inexperienced youth step up to become a hero, whereas *PS* depicts an amnesiac immortal recovering his memories. *DA:O*'s choice to increase the number of new skills provided with each level is reflective of developments in the MMORPG genre, where levelling is a key element in player motivation (Dickey, 2007). Such levelling systems are primarily gameplay considerations, not critical to the narrative or even player agency outside of combat.

The conclusion of each game serves as a demonstration of Bioware's increased storytelling skill. *BG* features little or no variation in the nature of the climax, regardless of the player's course through the imperative plot. *PS* offers a degree of choice, modified by player actions, but the climax comes down to a familiar gaming trope: the trifold choice, with a three-way choice in resolving the narrative⁹. In *DA:O*, the resolution to the imperative plot is genuinely multilayered, with multiple confrontations reflecting player actions, NPC companions influencing the outcome, and an epilogue in which all that has passed before is reviewed.

The narratives of games have generally been criticised for lacking the depth of those associated with novels, or, more recently, with film and television. This weakness has been associated with the need to provide player agency (Kelly, 2011). However, this may be due to the immaturity of the video game medium. In *DA:O*, Bioware succeeds in providing a narrative deepened by player agency. The structure of the imperative plot is a key element in this: segmented and spread out physically, it introduces a feeling of consequence throughout the narrative space.

The strength and consistency of *DA:O*'s supporting NPCs, its eschewing of an overt morality score mechanic and the carefully thought-out game world undoubtedly add to this. Over the course of the game, and especially towards the climax, the player faces decisions with no right or wrong answers, and even on the verge of victory, they face a choice between a sacrifice and a bargain with an uncertain outcome.

In *BG*'s freedom and *PS*'s engaging, thoughtful narrative can be seen the concomitant problems of a weak narrative and exploratory freedom, respectively. In

⁹ Similar resolutions can be seen in Ion Storm's *Deus Ex* and Bioware's own *Mass Effect 3*.

DA:O, a closer linkage between the physical space of the game world and the temporal space of the plot adds a sense of consequence to player agency. The player is free to explore the physical world in his own fashion, but plots are threaded throughout the game, ensuring a sense of progression. As in a traditional linear narrative, actions have genuine consequences, not easily wiped out. There is no longer simply Juul's eternal "now" of the video game (2001), but rather a past, present and potential, unshaped future.

Further Research

Although limited to a handful of games by a single developer, I believe this study makes clear the value of examining the output of developers working within a single genre over time. Rather than concentrating on individual mechanics across a number of games or examining a single game in depth, such an approach promises a broader view of trends within a genre and within games as a whole.

Further research could explore the conclusions reached in relation to narrative space and temporal plot within other CRPGs and within other genres. The impact of the "save game" mechanic in strong-narrative games on the sense of consequence attached to actions is also worthy of examination. Lastly, the MMORPG genre's presentation of a shared game world and its relationship to the single-player narrative experience is a fascinating new area.

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