

Do games tell stories or do stories play games? The narratological analysis of computer games

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Abstract

While narratological analysis has previously been applied to computer games, it has mainly been used as an instrument for their design. This approach fails to consider the roles of the player and the social context in the formation of the narrative. Without the inclusion of these influences, narrative is considered to be solely in the hands of the designer. This study considers the contribution of the relational and social context of games to the narrative, and suggests a more holistic approach to the analysis of games.

Key-Words : Computer Games, Narratology, Game Analysis, Multimedia, Metanarratology, Propp, Barthes

1 Analysing Computer Games

According to some sources [1][2][3] successful games today depend on a number of factors, including the following.

- Gameplay
- Interaction
- Narrative
- Surprise
- Production values (visual impact, music etc).

Due to the increased potential for profit computer games affords, game designers and publishers have become increasingly interested in the definition of a “successful” or “good” game. This has led to numerous studies on topics such as why we play games [2]. In addition academics have tended to concentrate on the search for tangible techniques to anal-

yse computer games or their effects on the players. Psychologists and Sociologists for example have tended to investigate the role of this new media phenomenon on human behaviours, such as: the issue of violence in computer games fostering violent behaviour[4][5][6]; gender issues[7][8][9][10][11]; cultural expectations surrounding computer games [7], etc.

A common approach to the analysis of computer games has been to view them as interactive narrative texts[12][13] and use narratological analysis techniques to understand the games and to identify their key ingredients. Gonzalo Frasca[14] has argued that although games share much in common with narrative, they are in fact simulations and thus a different set of semiotic rules apply. Simulations have no predetermined outcomes, and the authors have no control over the ending of a game. The designer’s control is limited to the setting, and the rules under which the simulation applies.

In this study we explore some of the limitations of the current approaches in narratology for analysing

computer games; we extend the concept of narrative from the mainly design centric approach to the contexts in which computer games are played. We argue that there are several different layers of narrative, many of which are concerned with the interaction and social context of the game, rather than the innovations or technical skills of the design team. We also argue that this extended narratological approach forms one of the instruments in the game analyst's toolbox and offers an alternative to the designer centric view.

2 An Introduction to Narratology

Narratology has a venerable history, with Aristotle arguably forming one of its first ever exponents. It is primarily concerned with the de-construction of stories into component elements, often called *narratemes*, which are believed to be common to all narratives. While many have contributed to the study of narratology over the years, three figures emerge as preminent amongst them.

- Aristotle
- Vladimir Propp
- Roland Barthes

Aristotle's "Poetics"[15] was one of the first works on the subject, which discussed Greek tragic drama. He identified the unities (time, place and action) and identified six main components of a drama (action, character, thought, language, pattern and enactment).

In Propp's classic work of 1927 "The Morphology of the Folk Tale"[16], a large number of Russian folk tales were analysed. Propp observed that although the collective cast of characters in all of these folk tales was enormous, the narrative functions these characters fulfilled was very small. He devised a way of extracting these functions, and by associating a symbol with each function, was able to devise a calculus in order to describe stories. This facilitated structural comparisons.

Barthes' work was based on the analysis of much more recent literature and in his "Introduction to the

Structural Analysis of the Narrative"[17] he develops Propp's idea of the function and goes on to categorise different functions. In this study he goes on also to discuss the relationship between readers and authors, and introduces another key idea: that of codes, which form another component of narrative. These codes consider the contribution of the reader in terms of social/cultural/historical context, (symbolic, cultural, semic, proairetic, hermeneutic).

While each of these approaches have merit in their own right in the understanding of narratives, they were not developed in order to de-construct the narrative involved in the area of interactive media or games. This has led many such as Frasca[14] and Louchart et al[18] to claim that narratology breaks down in the analysis of games because the concepts of author and reader do not apply in the same way.

3 Narratology and Interactive Media

The question of whether narratological structures can be applied to interactive multimedia (of which games form an example) has been addressed in a number of different studies [19][14].

In the study by Licia Calvi[19] the narratological structures considered are those evolved originally from the Argentinian writer Jorge Luis Borges[20] with his notion of the labyrinth and the construction of tales as a form of combinatorial game. This approach was extended by the Italian author Italo Calvino into the idea of the Labyrinth Challenge (*La Sfida del Laberinto*[21]). Calvino and Eco[22] argue that within conventional narrative, the role of the author is to decide what to omit (Calvino's *garbage axiom*), and thus to plot a route through this labyrinth, discarding narrative possibilities.

Within interactive narratives, the role of the reader can be to find his/her own way through the labyrinth formed by the different events and character perspectives of the story. However Calvi (in [19] cites Umberto Eco as stating that there are two kinds of reader: first and second order. In their engagement with narrative, first order readers have as their priority finding their way out of the conceptual labyrinth, whereas a second order reader's priority will be to explore the labyrinth, and to form a deeper relationship

with the author.

Although Calvi's work is primarily concerned with hypertext narratives, there is much in her work that applies to computer games, and in particular the notions of the relationship between the reader and the author.

4 Narratological Analysis of Computer Games

Some authors claim (with some justification in our view) that the weakness of narratology in the context of multimedia is that there is a different relationship between authors and consumers [18]. Indeed it may be argued that in some cases (eg Tetris, Pacman) the narratives within the game are far too simplistic in order to warrant any deeper levels of analysis. Both of these approaches take a narrow view as to what constitutes a computer game, and how narratology can be applied.

A study of the sociological and psychological literature of computer games has led to a consideration of the broader context in which computer games are played. This suggests that there are a number of other narratives associated with playing games for which, it is our contention, narratological analysis is entirely appropriate.

4.1 The Relational Narrative

Relational narrative includes such considerations as understanding the appeal of specific games, why we select specific games, and this can influence the narrative from the players perspective.

Some authors (Littleton and Yates[7] in particular) have explored the nature of the cultures associated with games. One of the more significant issues they discuss is the concept of *attunement* in determining the appeal of computer games. Attunement in this context is the match between a player's abilities and interests (referred to as *effectivities*) with the *affordances* of games, which can be considered as the potential to develop those interests and abilities[7]. The assessment of attunement by game players is mediated by the use of game genres. Game genres form the means whereby gamers match their effectivities

to the affordances of the game. Often gamers construct elaborate edifices of genres and sub-genres in order to facilitate the attunement potential of different games.

Competition is held to be one of the main reasons why people play games [23]. In order to be able to compete, the user needs to develop his/her skills in manipulation of the interface. Acquiring these skills contributes to this relationship, as the user learns to overcome the challenges set by the limitations of console handsets, keyboards, mice and other peripheral devices through which interaction is mediated.

Additionally engagement is enhanced by the *exploratory potential* of the game, which consists of finding the hidden layers and secrets, and which can contribute to the player's sense of pride or self-affirmation in his/her achievement and contribute meaningfully to the story of mastery of the game.

In mastering the interface users also discover ways of playing the game not previously envisaged by the designers, and this gives games an *organic potential*, leading to deeper engagement. The discovery of undocumented features (sometimes bugs or cheats) leaves avenues of potential for discovering variations on what was previously possible. All of this is suggestive of an individualistic relationship between the game players and the game itself, and that this relationship can be modelled in terms of a narrative in which the game features as a function (in the sense envisaged by Propp and Barthes) allowing for the development and exercise in manipulating the interface of a computer game, and the way the game is used.

This *relational narrative* requires further exploration, but informal observations of game players would appear to indicate that the ideal would be a story of some initial struggle, leading gradually (by a constant process of challenge and reward) to an overall mastery.

4.2 The Social Context

Games form an important shared experience amongst many of those who play them, and this applies to games played on individual consoles in a player's private space as it does to the various multiplayer or online games currently available.

Computer games often form a part of the bond in a peer group[4][24][25][6], and plays a significant role in the development and maintenance of friendships. Competition (although not necessarily) can play a part in this social context. The use of scoring systems encourage comparisons of measurable aspects of ability in the mastery of the interface. This aspect of the social narrative adds to the “strong necessity to act” that forms a part of the narratological aspect of game play[16] and the competitive issues as well[23].

As part of the social context, games are played as a means of acquiring skills and information and this is an important part of this study. Evidence from the literature of medical education shows that the motivation to play games can sometimes come from the impetus to acquire games skills for professional purposes[26][27]. Some games also have a self-consciously educational intent, and so playing the game has an effect on the context in which it is played.

This broader social context suggests the existence of another concurrent narrative, which we refer to as the *social narrative*. The function of a game in the social narrative is to provide a way into, and to maintain membership of, the peer group. The social narrative, like the relational narrative is another area for study. The kind of narrative structures sought include those relating to the way in which the peer group bonds during as a result of the shared experience of playing the game, or the way in which skills, knowledge and experience is developed using a game and deployed in the “real world”[28].

4.3 The Metanarratology of Games

The term *metanarratology* has been coined in order to describe a model of game analysis that incorporates the following extra-ludological narratives (ie the social and relational narratives) into a method of analysis.

The Intrinsic Narrative The narrative of the game world itself and the events that befall the player’s avatar within the game world.

The Relational Narrative The narrative of an individual player’s relationship with the game. In particular the way players learn to master the interface, the discovery of different parts of the game world and the ways in which players evolve their own ways of playing the game.

The Social Narrative Games are seldom played in isolation, and there is invariably a social context. This does not just apply to multi-player or online games, but also to games played in private where they form part of the shared experience of many peer groups.

It is suggested that this approach to narratological analysis can be deployed in the design of computer games, where it is expected that desirable narratives will emerge from this more holistic approach.

5 Conclusion

The role of a computer game in the relational and social narratives of a game player is as a function (in Propp’s sense of the word). The game guides the players in the narratives of their own lives beyond the game. This way of analysing games allows the potential to explore their function in ways that are broader and deeper than conventional narratology. It is interesting to speculate as to the contribution of narratives to the success of the game. This is a matter for future research.

Each of these narratives can be influenced by the designers of games (although it is highly improbable that these narratives can be designed in their entirety). Further study in this field is ongoing by the authors, including the development of design methodologies that take these extra-ludological narratives into account, in order to maximise the commercial/educational potential of the games being developed.

It is also worth pointing out at this stage that other layers of analysis exist including the development context of computer games, as well as cultural and ethical contexts which have some influences on

all of these narratives. It is proposed to explore these contexts in future.

Further work is ongoing by the authors to explore the nature of the relationship between games designers and the players, as it is becoming increasingly apparent that this relationship is infinitely more complex than the relationship between readers and authors. If this relationship can be understood, then significant advances may be made in the design of games.

Finally the answer to the question posed in the title of this study is that games do not themselves tell stories nor do stories play games. Rather games provide the raw material from which stories or narratives emerge. In this paper we have identified three such narratives, and coined the term metanarratology to analyse these. It is clear from our research that the designer centric approach is indeed too simplistic in any consideration of narrative influences, and as such further work is ongoing.

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