

KEYS TO SUCCESSFUL INTERACTIVE STORYTELLING: A STUDY OF THE BOOMING “CHOOSE-YOUR-OWN-ADVENTURE” VIDEO GAME INDUSTRY

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ABSTRACT

Video gaming has become a multi-billion dollar industry that continues to capture the hearts, minds and pocketbooks of millions of gamers who span all ages. Narrative and interactive games form part of this market. The popularity of tablet computers and the technological advances of video games have led to a renaissance in the genre for both youth and adult audiences. Understanding the resurgence in this aspect of the market would be the topic for a useful academic endeavor, but exploring the bases for the interest in this aspect of technology can not only satisfy academic curiosity, but also lead to expansion of the overall industry. The goal of the research is to provide an explanation and framework of what makes some interactive narratives more successful than others. This was done by identifying the common story elements and writing strategies that are used to make digital interactive stories enjoyable and satisfying to participants. This research can potentially be a valuable tool for studios entering the interactive storytelling space because it will provide writers with a general outline of the key success factors required to design a compelling game and story.

The paper analyzes selected interactive narrative video games in order to provide an explanation and framework of what makes them successful. The research questions addressed are: (1) What are the common storytelling elements present in successful games? (2) Why do these help to ensure a satisfying experience?

Keywords: Video Games, Interactive Gaming, Participative Video Gaming, First Person Video Gaming.

INTRODUCTION

In the early days of the internet, video games first appeared as an idiosyncratic consumer of time, and sometimes, stress. Games were basic and appeared as highly pixelated offerings in which the player used imagination, aided by blotches of color created on a monitor. The appeal of the video game graduated from passing time to game loyalty. Each kind of game attracted its own following.

The video game would apocryphally take its place from being a side attraction to a major part of computing hardware and software. There are critical issues to the study of gaming, particularly in the learning sciences, which offers some important practical and theoretical traditions that games studies can draw upon as it matures as a field of important study. Playing video games has been transformed into a social phenomenon that has infused

itself into every corner of the globe where computers are available. The interactive segment of this huge market is particularly appealing to developers. It is an unassailable fact that games make money. However, games tend to influence individuals, from young to old. Players learn as they make progress in games. Learning is conceptualized not as a function of the game itself or even a simple coupling of the player and game; rather, learning is seen as transformations that occur through the dynamic relations between subjects, artifacts, and mediating social structures (Squire, 2002).

Video gaming has been purported to have an effect on a multitude of aspects in society, from health to Global Production Network approaches in understanding the geographically uneven impacts of globalization processes (Johns, 2005). Consequently, there are many avenues for

research in this milieu. This paper seeks to explore one aspect of the overall industry by attempting to find out in with greater understanding, why a particular genre holds the appeal it does.

1. Rationale for the Study

One of the most highly acclaimed interactive stories from this new generation is 'The Walking Dead'. The much coveted youth digital market is also being targeted by major gaming studios. Disney has capitalized on the prevalence of tablets by releasing interactive digital storybooks that feature their much-beloved characters (Bacon, 2014). Even traditional comic book superheroes such as Batman will soon be featured in Choose-Your-Own-Adventure (CYOA) style games (Miller, 2015). However, despite this emergence of an exciting new writing medium most of the academic literature written on the topic of interactive narrative tends to focus heavily on software systems and other technical issues. There has been significantly less material published in which the researchers attempt to analyze the actual creative elements of the story writing process and define best practices for this emerging genre (Ohannessian, 2014). This gap in research has provided the motivation for this paper.

2. Literature Review

2.1 Participant Experience

Millam, El-Basr, & Wakkary (2008) deliberately evaluated an interactive narrative from the perspective of the participant as opposed to the perspective of the designer. After observing and interviewing participants they developed a list of sixteen themes or criteria which they felt directly affected how participants judged their narrative experience. The warrant presented by the authors is that a player's experience relies heavily on their background and previous experiences. They elaborate by positing that many of their participants could not identify with their suggested role in the story and thus didn't feel ownership or a sense of control.

This finding in this regard was not overly convincing because, the authors seem to place far too much importance on the value of their participant's lived experiences as far as they relate to the concept of role acceptance (Gutelle, 2015). The sample interactive

narrative game being used in the experiment may be partly responsible for their skewed conclusions. The game being studied had limited mass appeal, a very slow pace of narrative, and relied heavily on participant's ability to detect subtle social cues (Kinney, 2015). As a result, the negative experiences described by some of the participants led the authors to focus too heavily on the elements of the interactive narrative that upset players. In this sense, an opportunity was missed to focus on the story elements that led directly to participant satisfaction. (O'Rourke, 2015).

3. Maintaining Traditional Narrative Elements

This section focuses on the genre's struggle to maintain the integrity and characteristics of a traditional story within the unique and evolving framework of an interactive narrative. Ryan (2009) focuses on the challenge of integrating the participant's agency into a framework that fulfils the traditional structure of a story. That structure defined as a sequence of events involving thinking individuals, linked by causal relations, motivated by a conflict, and aiming at its resolution (Nakamura, 2015). Aside from this being an excellent description of story structure, Ryan (2009) has also provided a much needed working definition of narrative structure for consideration in this paper. The core of the article is the author's belief that the creation of personal and evolving relations between the participant's character and the computer characters is what allows the participant to influence their destiny and feel concern both for themselves and others and that this is what is required to successfully combine interactive narrative with narrative structure (Ryan, 2009). While this is a fairly convincing argument, it could be strengthened with a more direct connection to the importance of developing a narrative structure that works within interactive stories.

Perhaps the biggest difference between a traditional story and an interactive narrative is the added element of participant agency. This topic is discussed at length in the article by Harrell & Zhu (2009). In this article, the authors discuss the misguided concept of a narrative paradox which is said to cause many researchers to think of agency as being adversarial to a writer's ability to design a narrative structure (Harrell & Zhu, 2009). To elaborate, the authors

believe that many researchers are confusing agency with free will. Their findings include the proposition that simply providing an ever increasing amount of free will is not conducive to creating an engaging interactive narrative. Rather they argue that agency should be thought of as an expressive resource or tool that can help writers design meaningful work (Harrell & Zhu, 2009).

4. Planning Interactive Narratives

Porteous, Cavazza, & Charles (2010) address the problem of how best to manipulate and organize story elements such as narrative pacing, arc, and tension. As a solution, the authors present a software system which they have designed to use state trajectory constraints as story landmarks to generate narratives. This framework was quite influential in helping to develop some of the story planning arguments made in this paper. For instance, while the use of narrative landmarks is an effective way to ensure a satisfying experience for the participant, it may be more helpful to define landmarks for an interactive narrative as a criterion of participant satisfaction (such as closure or problem solving) as opposed to checkpoints in a traditional three-act film narrative (Vogler, 2007).

Valls-Vargas, Ontanón, & Zhu (2013) take the system design process one step further by addressing the problem of current map generation software that ignores the actual story. To combat this problem, the authors describe their concept for a system that is able to use an input of plot points to construct a map for the participant that will allow for high quality stories. The authors believe this type of system will increase story variety and replay value. Similarly to the previous authors, they also identify constraints as being a necessary tool for creating an effective interactive story since their system would use constraints to shape and define the playing map (Valls-Vargas, Ontanon, & Zhu, 2013). The article does an excellent job providing a convincing argument that utilizing the playing map to impose story constraints could be a very effective way of ensuring that suggested story elements are experienced and enjoyed by the participant.

5. Research Questions

The two main research questions addressed in this paper are:

1. What are the common storytelling elements present in commercially and critically successful interactive narratives?
2. Why do these common elements help to ensure an enjoyable and satisfying experience for the participant?

6. Methodology and Tools for Data Collection

A thematic analysis of the sources of participant satisfaction from interactive narrative video games was conducted by utilizing a sample of gaming industry and popular media product reviews that were sourced from the largest and most credible digital media websites. Five games were chosen to be part of the study. The game titles are:

- Mass Effect 2.
- Mass Effect 3.
- Walking Dead Season 1.
- Walking Dead Season 2.
- Game of Thrones.

The searches were limited to return only product reviews that were written within six months of the release date. Each of those searches resulted in thousands of results. The top twenty most credible reviews were collected for each of the five games and placed into folders.

This resulted in one hundred product reviews in total. Each review was approximately 700-1500 words in length. After reading each of the reviews, the researchers narrowed down the data set in order to deal with the coding process. With that in mind they chose the twelve reviews for each game that focused the most heavily on narrative storytelling and design. This resulted in a smaller subset of 60 product reviews that were used for the thematic analysis.

The researchers then continued the grounded theory research approach they had already begun by identifying the substantive area of interest and collecting the qualitative data. The next step in the process, as described by Glaser (1998) is to open code the data. This required coding the data for every possible trend until the core categories revealed themselves. The core categories are intended to explain the behaviour in the area of study. In

this case, the behaviour being explained was satisfaction among interactive narrative video game participants. Once the core category was identified, the researchers began the next step which is known as selective coding. During this phase, the data were coded only for the core categories and other related categories. Using Microsoft Excel we were able to use this process to identify patterns in the data and divide these commonalities into codes. Codes that were deemed complimentary were combined into overarching themes. The results were three overarching themes each composed of three or four sub-themes that the researchers then used to form the proposition that player satisfaction can be achieved in interactive narratives.

In order to validate the results and confirm the absence of bias, a reliability check was conducted by a peer. Detailed definitions of the three overarching themes along with the ten sub-themes were provided to the peer as was a sample of 10% of the product reviews, in which every sub-theme was represented. After a thorough discussion of the intended distinction between the themes of immersion and investment, the reliability check was conducted and each theme and sub-theme was identified in the sample.

7. Results and Discussion

Figure 1 represents the model being proposed in this paper to represent the themes or success factors that were revealed in the coding process to be necessary in these games in order to achieve player satisfaction.

The following conclusions can then be applied to the two research questions of this paper.

- The majority of players are sophisticated enough to

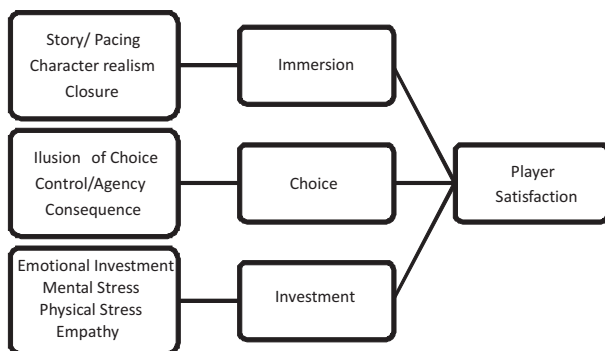


Figure 1. Themes and sub-themes contributing to Player Satisfaction

understand that illusion of choice is a necessary limitation of CYOA games. So instead of attempting to accommodate an unreasonable level of player choice, designers should instead focus on executing illusion of a choice in ways that are undetectable to the participant. This can be done by accepting that even though all players may end up in generally the same destination, the journey that brings them there should be extremely customizable.

- One way to achieve this customization is to offer players a version of agency in which they are able to heavily influence their character's personality and emotional development. This type of agency is less disruptive to game design, yet provides a high degree of satisfaction to the participant as they are able to develop a level of ownership over their character and thus build a stronger connection to the game.

- Visible consequences to player decisions were the most crucial component of a satisfying CYOA experience. By forcing players to make decisions that will have unforeseen consequences, these games insightfully recreate real-life experiences. Reviewers were especially impressed when their choices directly impacted their relationships with other characters. These social consequences resonated with participants and caused them to consider how they treated other characters.

- One way satisfaction is achieved is when players become emotionally invested in their experience. The experience of both positive and negative emotions contributed to this satisfaction, indicating that experiencing a wide range of emotions during gameplay is more likely to lead to an enjoyable play session. There was clearly an element of catharsis present as these games provided an opportunity for players to explore feelings of sadness, anger and grief in short-term, fictional settings.

- Surprisingly, experiencing mental stress also increased player satisfaction. Players particularly enjoyed mental stress as related to issues of morality and social responsibility. These situations allowed players to hone their real-life decision making skills while also forcing them to define their own view of morality. Encounters that centred on relationship politics were especially taxing on players, and the consequences often lingered in their minds after

playing.

- Tangible physical reactions such as being brought to the point of tears or feeling tightness in the stomach were widely reported by reviewers as they described their immersion level. Once again, although these physical signs of stress hold negative connotations, they actually indicated increased enjoyment. This stress was often the result of players feeling a high level of responsibility for the fate of their character and the rest of the cast.
- In order for players to become invested in the story, they must develop a high level of empathy for the characters in the game. It is the responsibility of the writers to achieve this empathy by building a strong connection between the player and their character. A failure to develop empathy compromises the entire game because without empathy the events in the story will not generate an emotional response from the player.
- Unpredictability is an important contributor to player satisfaction. Reviewers noted that the feeling of not knowing what would happen next in the story kept them immersed. Designers should also ensure that these unpredictable events lead to unforeseen decisions for the player. Having to evaluate a chaotic situation and make a decision in a limited amount of time is a stressful, yet thrilling experience for players.
- Supporting characters must be perceived as realistic and credible by the player to sustain immersion. They must also have their own character arcs in order to ensure that the player becomes invested in their journey as well as the journey of the player's actual character. Once the player becomes invested in the lives of the supporting cast, significant weight is added to their decisions since they feel compelled to be less selfish in their choices. Having to balance these competing priorities contributes to both immersion and player satisfaction.
- The final act of a CYOA game has an extremely large influence on a player's final opinion of the game and their overall level of satisfaction. Because of this it is crucial that player's receive adequate closure to repay them for the emotional investment they have made in the story and its characters. Any jarring or unsatisfactory events in the final moments of gameplay can spoil the entire experience.

However, an excellent ending that offers satisfactory closure can compensate for earlier weaknesses.

8. Limitations and Areas for Future Study

The Choose-Your-Own-Adventure digital revitalization is still in its infancy. Although the games studied for this report have attained massive success, the lack of variety in competition naturally limits the recommendations that could be made for achieving commercial and critical success simply because there are so few proven methods. As was noted in the industry analysis, several major studios (as well as independent boutique studios) are on the verge of releasing CYOA games that will cover a wide assortment of subject matter and include new game mechanics. The successes and failures of these games will likely create new genres and sub-genres of choose-your-own-adventure and inspire new ways of achieving player satisfaction. What effect could these events have on the conclusions made in this paper? It is recommended that subsequent research be conducted in two or three years utilizing new successful CYOA games that have emerged from the pack in order to validate or improve the keys to success presented here.

Another consequence of researching a digital art form that is still in its infancy is that the longevity of the genre is unproven (Cox, 2015). Unlike other literary mediums such as screen or novel writing, digital CYOA has not yet stood the test of time. As we noted previously, the original Choose-Your-Own-Adventure book series released in the 1970s achieved massive commercial success before eventually losing relevance. Will the video games suffer the same fate? So far, one major change in that comparison is that the video games achieving success are of much-higher quality than the books ever were. However, just like the books, the games are also spawning many copycat products that are of considerably lower quality. Will this lead to market saturation or fatigue? Another advantage the games have over the books is that today's participant has developed a love and familiarity with user-generated content (social media) and this interactivity parallels nicely with the CYOA genre.

Conclusion

Potential Implications to the Gaming Industry

Perhaps the most interesting discovery in this paper is that of

all the game reviewers whose work was coded in the thematic analysis, only two or three were critical of the illusion of choice tactic that was heavily employed by the five games being studied. The rest of the reviewers not only understood the practical necessity of this storytelling device, but they even praised its execution in situations where the game writers had been able to convince them that they had more control over the events of the story than they actually did. With that in mind, the major take-away from this paper for a studio planning to make a choose-your-own-adventure game is not to spend money or time trying to appease the vocal minority. Instead of feeling as though illusion of choice is somehow a deceitful approach, writers and designers should embrace it as a powerful and emerging storytelling device for this exciting new medium. However, what the results of this paper did show was that players do expect to have control over the emotional development of their character. Perhaps this could be explained by our comfort and familiarity with the realities of everyday life. Although we cannot control the events that will take place in our lives, we can shape our personalities by deciding how we will react to them and how we will interact with the people in our lives. For this reason, choose-your-own-adventure game writers need to focus relentlessly on offering the player the opportunity to mould and bond with their character.

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