Designing Storytelling Games That Encourage *Narrative* Play

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Abstract. Storytelling games are a form of competitive storytelling framed in the context of gameplay. However, most existing storytelling games emphasize competitive gameplay and winning at the expense of competitive *narrative* play; they tend to be storytelling *games* rather than *storytelling* games. This paper explores issues related to the design of storytelling games that are won through *narrative* play and proposes a number of design rules for this. These design rules not only help in the design of storytelling games with a stronger element of narrative play, they also have implications for the design of computational storytelling systems.

Key words: storytelling games, interactive storytelling, cooperative storytelling

1 Introduction

Much of the research in interactive narrative is on problems related to the design of systems that allow player-readers to experience interesting, system-generated narratives, no matter what the player-readers choose to do. Research involves such things as how to generate stories based on goals and agents [1], how to control the revelation of story fragments through the use of constraints [2], how to develop drama managers that balance between player-reader choices and the requirements of a predefined story arc [3], and so on. However, there is another kind of interactive narrative, where the emphasis is less upon the stories that can arise via interaction between systems and players, but rather upon stories that can arise via interactions between players and other players (*via* the system). The development of such *collaborative storytelling* systems raises a number of issues about narrative interactivity – issues quite distinct from those usually addressed in interactive narrative research.

Collaborative storytelling has a long history and includes such things as role-playing games (*Dungeons & Dragons*), MMORPGs (*World of Warcraft*), hypertext- and wiki-based stories (*A Million Penguins* [4], *One Million Monkeys Typing*), MUDS (*Castle Marrach*), and multiplayer simulation environments

(*Second Life*). Obviously, some of these systems emphasize the collective enactment of group experiences rather than the collective 'narration' of stories to be read or heard, but the main point is that such systems tend to be appealing to the degree that the resulting group creation (adventure or story) is interesting – as opposed to the degree to which the system's automatically generated/shaped narrative is interesting.

One particularly interesting form of collaborative storytelling is the *storytelling game*, such as *Never Ending Stories*, *Once Upon a Time* (or *OUaT*), *TaleCraft*, *Dark Cults*, *The Extraordinary Adventures of Baron Munchausen*, *Pantheon*, or the *Into the D. . . C. . .* series. Such games typically consist of pieces (or cards) with different images upon them (e.g., images of characters, events, locations, objects). Typically, players take turns placing these pieces, with the placement constrained in different ways. As players place their pieces they invent/tell a continuation of the story to this point – and this must be somehow related to the piece they are placing. The winner is the first player to discard all pieces/cards while meeting the placement requirements.

Storytelling games are interactive in the sense that structures are put in place to enable and facilitate good person-to-person interaction (in the process of co-creating a story). In other words, similar to other forms of interactive narrative, the rules and structures support the actions of player-reader/tellers, which we will refer to as *playtellers*. But unlike other forms of interactive narrative, the *re*-actions do not come from the system (whether in the form of traditional physical materials or computer-based networked frameworks), but rather from the actions of the other playtellers. A major concern when designing storytelling games is the creation of the rules/structures so that storytelling actions and interactions result in the ongoing invention of stories by the participants. Such structures, if well designed, encourage players to 'provoke' each other to invent/tell stories that engage the playtellers. This model of interactivity differs significantly from those that involve, say, systems that can adapt/respond to the choices/inputs of players-as-sleuths or players-as-choosers. Instead, a crucial characteristic of collaborative storytelling is – or should be – players-as-narrative-*elaborators*.

Of course, these games differ in a variety of ways. James Wallis, for example, distinguishes between 'rudimentary' or 'sequence-of-cards' games, such as *Story-Blocks* and *Never Ending Stories*, and games that use, in his words, "a mechanic or device to create the structure that would turn [a narrative into a story]" [5]. But even acknowledging such distinctions, there is a curious characteristic of most of these games: they tend to be storytelling *games* rather than *storytelling* games. In other words, they are usually much better at facilitating game play than they are at facilitating story-telling, or *narrative*, play.

For example, in many storytelling games, players win the game by discarding all their cards/pieces before the other players. As a consequence, it is possible for players to concentrate entirely on getting rid of their pieces as quickly as possible – as opposed to *winning in narrative terms*. If anything, most existing storytelling games present playtellers with a stark choice: play to win (by the rules) or enter into the (storytelling) spirit of the game. If playtellers focus on

the latter, they are often enjoined to 'play in the spirit of fun' (i.e., play without identifying winners) – or to use some form of voting to determine the winner (e.g., vote on the best story). Neither of these options is particularly satisfying for players who are interested in having competitive, game-like mechanisms and criteria that emphasize *storytelling*.

This may seem like the standard story/game debate about how (or whether) to reconcile an author's or system's ability to generate a satisfying story and the player-reader's ability and desire to choose freely (e.g., [6, 7]). But the problem of balancing game and story in storytelling games is different: it involves the tension between the player's game-related goals and objectives – and the player-as-storyteller's *narrative* goals. So, whereas gameplay involves choices with the intent of winning the game, *narrative play* involves choices with the intent of winning *in narrative terms*.[1]

And this is why the design of storytelling games is both similar to and different from the design thinking that goes into games, cooperative work environments, narratives, or even other kinds of interactive narratives. For example, similar to the process of designing games, the designer of a storytelling game is not thinking in terms of creating a specific story, but of a universe of rules and constraints in which playtellers repeatedly create and experience different stories. However, unlike the design of most games, the design of storytelling games involves the creation of rules and materials to facilitate *storytelling* rather than only (or even primarily) games that players can win strategically by, say, successfully discarding all their pieces before their opponents.

What, then, has been accomplished in terms of designing storytelling games that are won through narrative play?

2   Related Work

Although there are a number of successful storytelling games, virtually all of them either allow players to win by non-narrative means or simply emphasize collective storytelling without winners. In terms of research on this topic, there is broadly relevant related work about the design of game mechanics that increase the dramatic dimension of game play [8] and about creating and running competitive and narratively engaging role-playing games (RPGs) [9]. Otherwise, the issue of what we call narrative play seems to have been most extensively considered by Will Hindmarch, designer of the *Vampire* series of paper-based role-playing game, and James Wallis, designer of such storytelling games as *Once Upon a Time* and *The Extraordinary Adventures of Baron Munchausen*. Hindmarch has concluded that the way to balance game and story in storytelling games is to accept that the "*process* is the point, not the *output*" [10] (emphasis added). Wallis, on the other hand, has written about his goal of creating storytelling games "in which the story created and the gameplay used to create it are

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[1] Narrative play can, of course, also encompass cooperative play that is competitive against some third entity. However, for the sake of simplicity, we here focus on purely competitive situations.

equal, which is both fun and creates a satisfying story" [5], so he seems at least open to the possibility of designs that support both. He has articulated a number of relevant theoretical ideas with his "four cornerstones that underlie any successful game or system that allows players to actively manipulate a story": clearly articulated genre, structure, rules, and story/game balance [5]. However, in his published work he has had the least to say about what he calls 'story and game balance.'

3   Problem Statement

In this paper, we examine one way that designers of storytelling games can shift the interactive fulcrum, so to speak, so that the storytelling process is one of being engaged in narrative play – and so that winning is the result of superior narrative play as opposed to superior game play. The specific technique we will describe is this: a player's narrative 'moves' create narrative problems that the other players must address in their narrative moves.

　　To be clear, this paper is not an attempt to solve the problem of designing a game that results in 'interesting' or 'good' stories. Rather, the goal is to show how the use of this technique (and a number of design rules that follow from it) can lead to storytelling games in which it is only possible to *win* the game via narrative play. These design rules not only help in the design of storytelling games with a stronger element of narrative play, they also have implications for the design of computational storytelling systems.

4   Designing for Narrative Play

In our research, we have come to believe that the main requirement in the design of a good storytelling game is to ensure that playtellers succeed or fail to the degree their *narrative* contributions succeed or fail. Designers need to ensure that *all* narrative choices have strategic/gameplay consequences – and that all strategic/game decisions have narrative impact.

　　This requirement impacts a number of different aspects of a storytelling game, but perhaps the most challenging consequence is the problem of designing suitable winning conditions. It is not enough, of course, to simply specify winning conditions – these need to be closely related to move-by-move success. Below we identify some strategies for accomplishing this.

4.1   Only Narrative Moves

Most important, we believe, is that all storytelling game moves be *only* narrative moves. Virtually all the storytelling games involve, to varying degrees, narrative play. In *OUaT*, for example, players cannot discard their cards unless they can tell a piece of the ongoing narrative in a way that meets various constraints. In *Baron Munchausen*, the structure of narrative play is quite ingenious, with

players attempting to create the most elaborate 'tall tales' while incorporating the ridiculous objections of their opponents. However, in each case, there is always an alternative to making a purely narrative move. In the case of *OUaT*, the constraints can be satisfied with minimal attention to story; in the case of *Baron Munchausen*, players can raise objections with the sole purpose of strategically getting rid of their betting (voting) coins.

4.2   Narrative Advancing/Blocking Possibilities

Each narrative move should advance the player relative to the other players – and also provide the player with the opportunity to thwart the narrative play of the other players. A very nice example of this is the 'stump the opponent' mechanic in Wallis's *Baron Munchausen*, where players create "a succession of new difficulties and dangers that the protagonist – who in *Baron Munchausen* is also the storyteller, all stories in the game being told in the first person – must overcome to reach his goal and succeed. The game wouldn't work at all without the interruptions: they function on both a gameplay level and a structural narrative level" [5].

4.3   Advantages/Disadvantages of Interrupting

If a game does not involve turn-taking, but rather makes use of some mechanism for players keeping or wresting storytelling control, there should be both advantages and disadvantages to attempting to take control. In the case of *OUaT*, where this mechanic is central, interrupting is only advantageous. And, as a result of the way the interruption mechanic works, in practice the threat of being interrupted can result in a fast, tersely-told story.

4.4   Narrative Moves Towards Narrative Winning

Each narrative move should not only advance a player relative to the other players, it should clearly advance the player towards winning the game in terms of a narrative goal. Of course, for storytelling games where ultimate success is (at least partly) measured in terms of discarding all cards/pieces, then it is trivially true that 'success' during a turn (discarding a card/piece) involves progress towards successfully completing the game. Howerever, this design strategy is intended to result in game rules that ensure that players 'close the narrative distance' between the current state of the story and their desired Story Goal.

4.5   Narrative Winning Conditions

And finally, winning the game must be done in purely narrative terms. In some ways, this is the weakest point of all existing storytelling games.

Most storytelling games invoke one of two solutions for determining the winner: game-play (as opposed to narrative) events – or the use of voting related

mechanisms to determine the winning story. A typical example of the former approach is the case where the player who successfully places the last piece/card is the winner (e.g., *Never Ending Stories*, *OUaT*); the main problem with this is that the emphasis tilts in favor of gameplay rather than narrative play. A typical example of the latter is when players vote on the best story created by the different players (e.g., *NanoFictionary*, *Baron Munchausen*); the main problem with this is that players typically find such decisions too subjective.

The notion that the winning condition should connect directly to ongoing success throughout the storytelling game can be seen as analogous to winning in traditional board games such as chess or *Othello*. The player who makes the last move in chess is the winner because *the winning move ends the game*– but in most cases, *being able to make that last move* requires 'good play' throughout (most of) the game. In *Othello*, there is less emphasis on the actual last move, but the principle still holds. Thus, in these and other games, the overall, ongoing quality of play directly correlates with overall quality (i.e., winning). Similarly, in a storytelling game, good storytelling during each turn/play should determine whether a player is the winner of the storytelling game. In other words, if the connection between core gameplay mechanic and storytelling can be carried through to the winning condition, then the means of winning the game will be equivalent to telling the best story.

It is interesting to note that very few storytelling games allow for the possibility of winning/losing *at any moment*. Unlike, say, chess, typically there are a certain number of cards to discard or a certain amount of time to play. One of the few exceptions is the game *Dark Cults*, in which different players take on the role of "Life" and "Death" and compete to determine whether a character lives or dies at the end of the game. There is, in fact, an active *narrative* struggle each turn to win (or, at least, not lose).

5   Case Study: *Suspend Me*

In order to better understand narrative play, we have been designing and testing different storytelling games. We now describe one that embodies the principles described earlier. It is a variation of *Once Upon a Time*, intended to test whether certain modifications can eliminate or reduce the possibility of winning through non-narrative means.

In *OUaT*, players are dealt random hands that include cards for Characters, Aspects, Events, Places, and Items. Each player also receives a single Ending card. The first player begins to tell a story, connecting it to the cards he places. He continues placing until he is either interrupted or he discards all his cards (in which case, he has won). Players can interrupt if they hold a card that corresponds to some aspect of the story the narrating player mentions.

From the perspective of narrative play, there are two weaknesses in *OUaT*. First, the player who has narrative control can tell a mad dash of a story and successfully win (as long as the story is reasonably coherent). Second, interruptions are too decoupled from narrative: players are prevented from interrupting

if they do not have a card that allows them to do so – and once they are able to interrupt, there are minimal constraints on the narrative coherence of their interruptions.

In our variation, *Suspend Me*, players compete to control a story in which they create and maintain suspense by constantly creating danger for their story characters – and by saving the other characters from danger. A player wins if he successfully attains his personal Story Goal in such a way that all the characters *except the player's character* are left in danger. In other words, the winner is the player who is able to resolve the situation as required, while also maintaining narrative tension.

Suspend Me begins with a randomly chosen Location card placed face up – along with a Character and Aspect card for each player (also face up). Thus, at the start of the game, all players know the location, the characters, and something about the characters. Players are dealt Item and Event cards which they use to play the game (much as they do in *OUaT*). *OUaT*'s Ending cards are not used at all; instead, players created their own Story Goal cards (based on a narrative goal that involves their character and the character's Aspect).

Each time a player lays down a card the portion of the story told must have all the following characteristics: must connect the Item or Event on the card in a reasonable way to the characters and the story so far; *and* must *save* his own character from that specific danger; *and* must create *suspense* by placing *all* of the other characters in danger *from* his character; *and* must either a) prevent own character from knowing how he is putting them in danger, or b) prevent the other characters from knowing how they are being put in danger; *and*, finally, must not create story events in which any player characters die.

Players must do *all* of these things each time they place a card. If they do not do all of these things, they are eliminated from the game. There are no 'turns' in this game. A player keeps playing cards until he hands off, is interrupted, wins, or is eliminated.

As in *OUaT*, players may interrupt and take storytelling control. However, unlike *Once Upon a Time*, it is not necessary for the interrupting player to have a card that matches something the storyteller says. The only requirement is that the interrupter uses his card to complete the requirements of the current player *in addition to meeting the requirements created by completing those requirements*.

Unlike *OUaT*, a player who has narrative control may create narrative challenges for other players and then *hand off* storytelling control to another player of his choice.

Suspend Me, then, incorporates all our design suggestions. The challenge of meeting the move requirements effectively prevents players from engaging in anything except narrative moves (e.g., no quick discarding); players must create certain narrative problems (and may also create others) each time they make a narrative move; interrupting is something that is not based on chance occurrences – and it involves some risk; each narrative move needs to connect to player's narrative goal; and it is only possible to win with a narrative move.

5.1   Playtesting Results

In our playtesting sessions, about forty students who had previously played *OUaT* played a few variations of the game described above. The purpose of these sessions was not to determine whether *Suspend Me* is a good game or not; rather, it was to see whether it supported increased narrative play. (Our own impression is that *OUaT* is still a better designed and more enjoyable storytelling game.)

The overall results support our belief that *Suspend Me* increased they amount of narrative play, with players making more narrative moves to avoid losing narrative challenges. Some players also felt that, because they were required to tie up the narrative loose ends created by other players, the stories created were more coherent than the ones they created playing *OUaT*. After playing for a while, a number of players not only made narrative contributions that fulfilled the requirements, but also attempted to sabotage other players in narrative ways (placing their characters in difficult narrative situations, etc.).

Perhaps the most important achievement of *Suspend Me* is that the criteria for success at each moment are both narrative and unambiguous. Players in our playtesting sessions did not get into debates about whether a narrative contribution did or did not meet the criteria.

The rules of *Suspend Me* do lead to a very slow game; groups had on average about four players in them and for most groups a single game lasted about 45 minutes. Some players felt the rules were so complicated that they lost sight of the overall storytelling process. A variation of this problem was that players sometimes found it difficult to remember or keep track of 'where they were' in terms of rescuing and endangering characters during their moves. And some players even complained that the game was too difficult (although, based on our observations, most players seemed to be enjoying themselves as much as they enjoyed *OUaT*).

Interestingly enough, although the genre we had in mind was suspense stories, one group found that the genre of their story drifted into slapstick. In retrospect, this should not be surprising as both genres involve danger and some degree of suspense.[2]

The most significant problem identified by players was that the rules required them to devote too much attention to micro-level (moment-by-moment) elements of the story at the expense of the overall story arc.

6   Discussion

Our main goal in designing *Suspend Me* was to explore different possibilities for equating game success/failure with narrative success/failure.

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[2] One obvious way to improve our game would involve making the cards more genre specific, but our purpose was to concentrate on varying the basic version of *OUaT* to see whether we could increase narrative play.

In creating this game, we explored designs that align the problem-solving involved in many types of gameplay with the problem-solving involved in certain kinds of reading and storytelling. In some ways, the game is based on the insight that there is problem-solving involved in both reading and creating a good suspense story. Readers of suspense stories are often engaged in the problem of trying to anticipate how the suspense will be resolved – and authors of such suspense stories are involved in solving the problem of successfully creating, presenting, and resolving the suspense. In a storytelling game with the goal of cooperatively/competitively trying to construct a suspense, playtellers are in both roles.

We are not, of course, claiming that all gameplay nor all reading (or storytelling) processes involve problem-solving – nor even that they are best understood in problem-solving terms. We have simply been exploring some of the consequences of aligning the kind of problem-solving involved in most competitive games with some specific kinds of authorial/storytelling problem-solving.

Specifically, *Suspend Me* requires players to solve the problem of creating and resolving narrative tension. This is analogous to the kind of storytelling problem confronted by, say, Hitchcock, who is justifiably famous for creating suspense for spectators by showing them some impending danger to some or all of the characters that the characters themselves do not know about (e.g., the maid unknowingly preparing to reveal a dead body in the chest in the center of the room during the cocktail party in *Rope* – or the cleaning woman unknowingly mopping her way to discover the character who is breaking into the safe in *Marnie*). Readers familiar with Hitchcock's technique will recognize it as a core structuring device in our storytelling game.

There is some precedence for this kind of solution. According to his description of *Youdunnit* [5], Wallis has done something similar in the sense that he structures the storytelling around solving a mystery. In the case of *Youdunnit*, the mystery is that there is a murder – and the narrative 'problem' is for each of the players to try *assigning the blame* to one of the other players.

6.1   Interactive Digital Storytelling Games

Before concluding this paper, it is worth stepping back and considering some of the implications for interactive digital storytelling. The issues raised and addressed (and examples given) are mostly from non-digital storytelling games. Why are these issue important for the interactive digital storytelling community? In some ways, it is not clear if there is a general answer to this question. The boundary between digital and non-digital is difficult to specify; witness, for example, the debate about whether there is a significant computational difference between hypertext stories and their non-digital counterparts.

So, of course, our insights will obviously work just as well for the design of storytelling games that happen to be played via computers. In a weak sense, many (all?) storytelling games can benefit from migrating to the computer. Computer-based systems can handle book-keeping, enforce constraints, and the like – essentially liberating players (or, in the case of games like *D&D*, Game

Masters) from issues that currently tax humans and require large rule-books, notation systems, and the like. Computation can also shift some of the 'enforcement' of game rules to the system (as opposed to having enforcement ensured by the memory and attentiveness of the players). To take one specific example from our work on *Suspend Me*, we experimented with some different ways in which to help players keep track of 'what to do' during their moves.

But we believe there are also stronger implications of this work for computational storytelling. One of these is the insight that it may be possible to make interactive storytelling systems more game-like without losing the narrative focus. Indeed, a shift towards narrative play seems like a promising area for recasting certain aspects of storytelling in computationally tractable terms. We do not suggest that this is appropriate for all digital storytelling efforts; there are, of course, computational narratives where the point is to explore multiple perspectives. Nonetheless, even in such cases, there may be elements of what we describe here – and ways to further enhance those systems by strengthening the implementations in terms of narrative play. It does not seem entirely coincidental that *Facade*, for example, can be described as a series of narrative problems created by and for the player.

One particular problem to address as a result of our work on *Suspend Me* is the critically important relationship between moment-by-moment narrative success and the overall narrative arc. This problem is of course central to much of the work on computational storytelling systems that attempt to reconcile (or combine) bottom-up story generation from small narrative units with top-down story generation guided by story managers and the like. This further strengthens our conviction that work on storytelling games and work on interactive digital storytelling can benefit each other.

7   Conclusion

This paper has not been about particular storytelling game designs, but about some insights, issues, and possible solutions that arose out of designing and playing different storytelling games intended to promote narrative play. Our modest goal for this paper is that it continues the kinds of research represented by Will Hindmarch and James Wallis. Hopefully, it will help to focus attention on the topic of narrative play. To this end, future work will involve developing storytelling games with different characteristics – and studying the resulting consequences to narrative play.

In conclusion, our larger ambition going forward is to develop additional tools and techniques that facilitate the invention of good and interesting stories. The work reported here concentrates on elements that support narrative play in multiplayer storytelling games. The long-term research will explore in more detail a twin problem: the elements that encourage the playtellers of such games – and the elements that can facilitate and enable designers of such games.

References

1. Cavazza, M., Charles, F., Mead, S.J.: Character-based interactive storytelling. IEEE Intelligent Systems, special issue on AI in Interactive Entertainment (2002) 17–24
2. Mateas, M., Stern, A.: Procedural authorship: A case-study of the interactive drama Facade. In: Proceedings of Digital Arts and Culture (DAC) 2005. (2005)
3. Young, R.M., Riedl, M.: Towards an architecture for intelligent control of narrative in interactive virtual worlds. In: Proceedings of the International Conference on Intelligent User Interfaces. (2003)
4. Mason, B., Thomas, S.: A million penguins research report. Technical report, Institute of Creative Technologies, De Montfort University, Leicester, UK (2004)
5. Wallis, J.: Making games that make stories. In Harrigan, P., Wardrip-Fruin, N., eds.: Second Person: Role-Playing and Story in Games and Playable Media. MIT Press, Cambridge, MA, USA (2007)
6. Costikyan, G.: Where stories end and games begin. Game Developer Magazine (2000)
7. Harrigan, P., Wardrip-Fruin, N., eds.: First Person: New Media as Story, Performance, and Game. MIT Press, Cambridge, MA. (2004)
8. LeBlanc, M.: Tools for creating dramatic game balance. In Salen, K., Zimmerman, E., eds.: The Game Design Reader: A Rules of Play Anthology. MIT Press, Cambridge, MA (2005) 438–459
9. Wyatt, J.: Dungeons and Dragons Dungeon Master's Guide: Roleplaying Game Core Rules. 4th edn. Wizards of the Coast, Renton, WA (2008)
10. Hindmarch, W.: Storytelling games as a creative medium. In Harrigan, P., Wardrip-Fruin, N., eds.: Second Person: Role-Playing and Story in Games and Playable Media. MIT Press (2007)