Stand Up and Take Your Place: Identifying Narrative Elements in Narrative Adventure and Role-Play Games

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This article reports results from a series of empirical studies exploring narrative dimensions of adventure and role-play in computer-game design. It identifies aspects of narrative employed in such games, considers the significance of narrative structures and devices in increasing user-engagement, and reflects on game-design implications.

Because not all approaches identified in traditional narrative theory can be applied to the new, interactive media, a phenomenological, reader-response methodology was used in the studies to identify narrative considerations appropriate to game-players' experiences. In two model focus-group studies, evaluative responses to games played in a controlled environment were analyzed. From the factors identified as affecting engagement, those with narrative aspects were isolated and their significance assessed. Among the factors identified are characterization, identification, agency, motivation, plot, linearity, and authorial control. Also considered is the disruption of primal narrative features of narrative — causality, temporality, and linearity— within a hyper-structure, and a number of design techniques and strategies to resolve such tensions and promote user engagement are suggested.

Categories and Subject Descriptors: K.8.0 [**Personal Computing**]: General—*Games;*

H.1.2 [**Models and Principles**]: User/Machine Systems—*Human factors*

General Terms: Design, Experimentation, Human Factors, Performance

Additional Key Words and Phrases: Narrative, games, evaluation, engagement, role-play, adventure

1. INTRODUCTION

Early academic research into computer adventure games drew heavily on narrative theory. Adventure games were initially hailed as a new kind of "interactive fiction," but whether this signified an evolutionary step or a revolutionary departure for narrative soon came into question. Within a short time, unease over the usefulness of applying traditional narrative analysis to games set in, escalating into an argument that was labeled "the clash between games and narrative" [Juul 1999; 2001; 2003]. The arguments against adopting a narrative approach in games research take place on two fronts, which are not always clearly separated: i.e., the argument over narrative analytical tools and the argument over the place of narrative. This article operates on the second front, the fight over whether narrative is "good" for games, by means of empirical data gathered without reference to narrative theory. However, the first front is described for context.

On the first front, the appropriateness of narrative analytical tools for games research is debated. Kucklich [2002] says that literary approaches to games research "failed to

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yield valid results because they could not read the games they were studying. Literary scholars were simply too absorbed in these fantastic worlds to pay attention to the rules governing that (game) universe." Essentially, literary scholars fail because they try to fit their subject to the theoretical frame, instead of *vice versa*. Aarseth [2003] reflects that, instead of treating the new phenomena carefully and as objects of a study for which no methodology yet exists, games are often still "analyzed willy-nilly, with tools that happen to be at hand, such as film theory or narratology" (that is, the science of narrative). Eskelinen [2004] points out, however, that there are fewer scholars in 2004 than there were in 2001 "believing they can just take their favorite ready-made theories off the shelf and project them blindly to computer games". So a consensus is being reached that not all aspects of traditional narrative theory apply to interactive narrative.

On the second, and possibly more crucial, front, there is the campaign over whether narrative even exists as a substantive element proper to game-design and what to think or do about it. According to Juul [1999, p.1]:

> "the computer game for all practicality *cannot* tell stories – the computer game is simply not a narrative medium. In actuality, we are facing a conflict between game and narrative: They are two separate phenomena that in many cases rule each other out."

Laramee [2002, p.270] complains that "Sadly, game plots have rarely risen above the level of the B movies of the 1940s and 1950s" as he criticizes the attitude that "we are making games, not stories." Theorists engaged in the debate over the utility of narrative for games include Laramee [2002; 2003], Onder [2003], Juul [2003; 2001; 1999], Frasca [2003], Jenkins [2003], Ryan [2001], Eskelinen [2004], Costikyan [2000], Egenfeldt-Nielsen [2000], Adams [1999], and Talin [1998], among others. The number of people at the DAC 2003 conference who positioned themselves in the narratology-ludology debate (ludology is the study of game play)[1] or engaged in heated debate (e.g., the blog argument among Eskelinen, Kuchlich, and Douglas [2004])[2] suggests that the arguments, while well worn, have not been settled. Frasca [2003] points out that the narratology-ludology argument is beset by misunderstandings and misconceptions that need to be resolved before the role of narrative in games can be fully understood.

A core issue, as Frasca [2003] and others see it, is coming to an agreement about terms: i.e., the identification of narrative and narrative elements within games. Some characteristics used to define traditional narrative are as follows: *time* [Branigan 1992]; *causal* and *contingent* relationships among events [Chatman 1990]; *change* [Rimmon-Kenan 1983]; and *causality* [Branigan 1992; Ricoeur 1976]. Narrative has also been defined in terms of linked events or by their internal dynamics: in Todorov [1977] as a movement from equilibrium through disequilibrium to a new equilibrium; in Bruner and

[1] Ludology is the study of game play. Jenkins (2003) characterises the "ludologist" tradition as rejecting the analysis of games through other theoretical perspectives, like narrative, (a number of other critics define ludology similarly). Conversely, Frasca (2003) says there is no separate narratology and ludology traditions within games research – that what is being referred to is all games research. Frasca's perspective is followed here, partly because he is one of the theorists to whom the characterisation of ludology as being defined by the rejection of other perspectives, is erroneously attributed.

[2] The argument begins (2004) with Julian Kucklich's remarks on Eskelinen's essay "Towards Computer Game Studies". Eskelinen's essay is available at http://www.electronicbookreview.com/v3/servlet/ebr?essay_id=eskelinen&command=view_essay accessed August, 2004. Eskelinen's response to Kuchlich's response is available at http://www.kolumbus.fi/mareske/EBR.htm

Lucariello [1989] as a form centering on *conflict* and *trouble*; in Bielenberg and Carpenter-Smith [1997] as the interaction of action, character, conflict, and genre. In Bordwell [1985] it is further defined as a communication conduit, and as a particular representation, structure, and process. Even the briefest consideration of the multitudinal, "high-level" nature of these "defining" variables suggests why analyzing and evaluatingnarrative presents a challenge for any media context. Narrative elements or characteristics are not simple entities at the end-unit level of deconstruction, but highly complex ones, so more detailed specifications, properties or concrete examples of how they may be shown in games are needed. The definition of narrative is also problematic, due to its expansion by certain narratologists (in particular, by reader-response theorists) to encompass not just the author's intention and construction process, but the reader's understanding and response—aspects not explicit in a narrative media text. The discussion below seeks to identify aspects of narrative in the game-media text and solutions to problems that arise when implementing those aspects.

The findings discussed below derive from the following studies. On the basis of an initial pilot, two empirical focus-group studies were conducted to explore user engagement in narrative adventure and role-play games (the genres considered most likely to contain significant narrative). Study 1 yielded a series of narrative-related user-engagement propositions for testing and refinement in Study 2.

The studies were carried out at Queen's University Belfast, Northern Ireland, in 1998 and in 2002, with two different groups of students as subjects, who were reasonably experienced game players, most (with a few exceptions)[3] having played 10 or more computer games in the past. Twelve subjects (11 males, 1 female) in Study 1 played 4 adventure games and then analyzed their responses to them in 5 small group sessions (in groups of 3,2,2,3,2)**.** With the exception of the initial session, the ages of the subjects ranged from 20-23. Seventy students who were taking a final year multimedia module were asked to volunteer. The volunteers were then selected according to the extent of their declared game-play experience, and because their previous knowledge of the domain would enrich the study as they compared the four games with those encountered outside the study.

The Study 2 participant' profiles were similar, albeit slightly younger, (ages 19 to 21). An email invitation was sent to all 296 first-year students enrolled on a first-year School of Management course. Volunteers were then selected by (a) gender (near-equal numbers to filter out any gender bias in Study 1 outcomes); (b) extent of declared game-play experience; and (c) earliest response. There were four sessions, of 3, 2, 4, and 4 participants. The play period was limited to a few hours; a short time period, but necessary, given the resource constraints. This was considered a crucial interaction period, as initial impressions often form the basis upon which a user decides whether to persevere with a game or abandon it.

In both studies, participants played a series of games before taking part in recorded audio sessions to analyze their experiences in an open-discussion framework. Significantly, Study 2 discussion sessions were extended to include a separate and final phase, in which the assessment propositions developed in Study 1 were debated. By this

[3] In Study 1, three post-graduate students (two male, one female), aged between 25 and 30, participated in Session 1. All three claimed experience of less than 10 computer games and were classed as inexperienced users. In Study 2, a criterion of volunteers having played 10 or more computer games was relaxed to allow two more females to qualify on the basis of having played 'some' games.

means, Study 2 results could be used to test the propositions in Study 1, both implicitly and explicitly.

2. RESEARCH DESIGN

The study methodologies focussed on illuminating player motivations, strategies, and generalizable play-patterns. The empirical analysis focused on capturing what in narrative games engages people or inhibits their engagement. Following an analysis of the data, elements of narrative theory were selected and assessed as to their pertinence to the users' empirically derived, subjective judgements and evaluations. Thus, the identification of narrative theory was data-driven and bottom-up, with theoretical presuppositions excluded until all the evidence had been gathered and analyzed. In these regards, the methodological approach of both studies may be characterized as phenomenological and based on essentially a reader-response model of computer-game interaction.

In Study 1, twelve participants were divided into five mini-focus groups to play and discuss the following commercial adventure games in a controlled environment:

- *Broken Sword II: The Smoking Mirror,* (Revolution Software Ltd., 1997)
- *Ecstatica II,* (Psygnosis, 1997)
- *Discworld II: Missing presumed*, (Perfect Entertainment Ltd., 1996)
- *The Curse of Monkey Island,* (Lucas Arts Entertainment, 1997)

Participants in each group played these games individually before discussing their experiences collectively [Mallon and Webb 2000]. From the large body of primary qualitative data transcribed from the recorded discussions, a series of tentative assessment statements (entitled 'propositions') were framed that, it was hoped, would have general applicability to the adventure-game genre. The propositions summarized participants' reactions and the criteria they used to discriminate among the qualities of their experiences. In Study 2, the evaluation criteria from Study 1 were tested and refined. Three role-play games were selected to ensure the broadest range of responses from participants.[4] Thirteen players played the following games individually in a series of sessions before engaging in group discussion: *Gothic* (2001), Xicat Interactive; *Might and Magic IX* (2002), New World Computing; and *Morrowind* (2002), Bethesda Softworks.

Transcripts of their discussions were then analyzed, divided into statements, and coded sequentially and by session. Units for analysis were one or more sentences occurring in sequence on the same conversational thread. Each statement unit was examined for the following:

- ***The type of information***: statements containing explicit or implicit value judgments, analytical, motivational, or comparative information was sampled. Behavioral information illuminating such information in a statement unit was included; other behavioral information was not.
- ***The referent***: what the players seemed to either criticize or desire. This, the referent, focussed on how the players assessed the designs and their own

[4] They were chosen from an internet site Gamerankings.com (http://www.gamerankings.com) which collects statistics from a range of game sites and amalgamates and ranks them.

experiences. It was reached by examining what players liked and did not like, considered good or poor, what they favored, what they compared, and the criteria they used to make comparisons. A note summarizing the issue or symptom being referred to was written and later used to organize material into subissues or themes.

- ***Initial value judgments***: whether they were positive, negative, or divided (i.e., a player might not favor a particular game aspect but might consider it necessary for other reasons, such as to ensure playability).
- ***Reasons given*** for their responses to this issue.
- ***Possible implications*** of the statement for the assessment proposition in Study 1.

Statements were clustered thematically and cross-referenced to the list of Study I assessment propositions in the search for supportive or falsifying instances. When a statement did not support a proposition, and that contradictory statement was a core statement or central to the Study 1 proposition, the proposition, or aspect of the proposition addressed, was amended or rejected. Following the development of the proposed assessment criteria, the results were investigated for answers to the following question:

- Do any factors emerging from the assessment criteria involve user consideration of narrative structures and devices, and, if so, in what way and in what circumstances? Can such considerations be defined in an operational or empirical manner to facilitate general analysis of narrative?

A discussion of a selected subset of the results and answers to this question follows.

3. NARRATIVE IMPLICATIONS

The aspects of narrative in games that we focus on here are as follows:

Player-game character interplay (Section 3.1): A discussion of noninteractive and interactive approaches to characterization.

Pre-programmed narrative versus player control (Section 3.2): An exploration of the players' desire for constraints and direction imposed by preprogrammed narrative routes through the game, compared with their need for freedom, control, and input. Techniques for facilitating authorial control (preprogrammed routes through the game) and user control are suggested.

Observations from the research suggest that there are tensions between narrative in its traditional form and interactivity, and that within a hyper structure there is a disruption of the primal features of narrative (causality, temporality and linearity). However, we argue below that narrative is nevertheless important to games, since it adds significant dimensions to a player's experience, but that design techniques and strategies to resolve such tensions and promote user engagement are required.

3.1 Player-Game Character Interplay

One of the criticisms of narrative in games is that games are the interactive part and narrative is not, in other words that the play starts when the story stops. For instance, Greg Costikyan [2000] says that "Divergence from a story's path is likely to make for a less satisfying story; restricting a player's freedom of action is likely to make for a less satisfying game." In a similar vein, Juul [1998] states that "Computer games are not

narratives.... Rather the narrative tends to be isolated from or even work against the computer-game-ness of the game." However, these concerns are based on what is still a limited appreciation of what narrative is and how it may be promoted interactively.

To appreciate this, consider the importance of *characterization* in both narrative structures and in game play. By the term "characterization" we are referring to

- the interplay between players, their avatars, and the other "characters" in adventure and role-play games;
- social/psychological issues like trust or suspicion among the above;
- character traits (skills, abilities, histories, memories, motivations, moral make up) belonging to a player's avatar; or
- the personality traits of other characters in the game.

In the players' critiques of the games, characterization and the manner of implementing it are shown as significantly affecting the players' engagement. In particular, the extent to which characterization is introduced and developed interactively is shown to be significant. Frustration was expressed for noninteractive techniques, as compared to interactive techniques (which were seen as integrating into play the development of meaningful and interactive relationships between players and game characters). The following recommendations and arguments (A to E) are derived from an analysis of the results.

A: When social/psychological elements like trust and suspicion are brought into the play (through, for instance, the development of relationships and alliances between the player's avatar and other game characters), a game character's psychology (traits, memories, motivations) can be said to become interactive for the player. Study 2 players expressed their appreciation of the inclusion of 'psychological' traits such as trust, suspicion, anger, rudeness, goodness, badness as the basis for behavior, relationships, and feedback, as seen in the following sample quotes from the Study 2 transcripts:

> "Did you ever see a film called '*The Thing*'? It's a very good film with Kurt Russell. He doesn't know who to trust and the game is the sequel of that. It's about what happens after and the people around you are reacting to your actions, because they don't know who to trust either, so if you act irrationally like shooting your gun off or pointing your gun at them for no real reason, they will start to get agitated and annoyed, until finally they just destroy you completely and kill you. So they are acting directly to how you are acting. So if you give them weapons, they will trust you more."

> "Say somebody gives you dialogue, well there are different ways to respond to it. You can respond nicely to it, or angrily to it, or you can be downright rude."

> "Yeah, like in *Gothic* to make the guards like you there was sort of an ignorant answer, or else you could be nice to try and let them in."

> *Re*: *Gothic* "There is even a certain amount of suspicion within the game. There is even people following you and constantly asking you what you are doing in here and why are you here and that you are lucky that you left in time. There is a certain amount of threats going on throughout it. There are three different cults or organizations that you can join and they all have guards who can look out for each other, so it is pretty realistic in accordance with the setting."

For examples of noninteractive *versus* interactive characterization compare the negative responses to character development in the Study 1 game, *Discworld,* to the positive critiques above by Study 2 players. In Study 1, players responded very

unfavorably to dialogue that gave a lot of background on the personalities of the *Discworld* characters, as seen in the sample quotes from the Study 1 transcripts:

> *Re*: *Discworld* "You were talking to someone and there was no need for it....it was just a waste of time."

> *Re*: *Discworld* "I don't know what I was trying to do. I was just wandering around trying to talk to people to see if I could get hints as to what was going on, but it was basically a descriptive chat about who the character was. You would go up and say 'who are you' and they would tell you who they are and that would be it. They wouldn't ask you questions or help you solve the puzzles. It could at least tell you what to do. I found it very vague — wandering around and doing nothing."

The game characters told players who they were and what they did, but players could *do* nothing with this information and it added nothing to *what* to do. The difference in the two responses to characterization is that in the first grouping, players had opportunities to make moral or attitude choices, to build relationships and alliances with game characters, and to witness that their choices were consequential.

> *Re: Grand Theft Auto*: "They won't bother you until you betray these gangsters. For example the last one you have to assassinate their boss, they won't bother you until you assassinate their boss and then they come after you. That was good."

Players liked it when the approach they chose regarding attitudes such as rudeness, politeness, goodness, or badness was included and had a subsequent effect on action. The use of "psychological" elements in such a manner (as compared to *Discworld* where the characters simply told players about themselves and players could do nothing with this information) shows a way that characterization can be made appealingly and meaningfully interactive.

These responses highlight potential conflicts between background narrative characterization and game play; but the foregoing critiques introduce some additional solutions for avoiding such conflicts.

B: Present noninteractive background story and character information as small snippets interspersed with play activities (with the exception of a noninteractive introductory sequence, which players did not criticize).

> *Re: Morrowind* "We like to interact if they were going to make it realistic. We didn't mind talking to them if they were going to give us directions, but we all found it very frustrating when we had to read reams and reams of stuff that was totally unrelated. So, although interacting with the characters on screen made it more realistic, we didn't want to have to read through reams and reams of stuff that was unrelated to how we were going to reach the end of the game."

The pace and placement of the delivery of noninteractive information affected the players' responses to both characterization and the background story. When the information was presented in small snippets, players enjoyed it. Compare the response to the wandering around in *Broken Sword* to that in *Discworld*:

> *Re: Broken Sword* "Every time you click on something to examine it will give you a little bit of story about that from the characters knowledge of it. You can just walk around the room clicking on things and that will increase the story. Builds up a story just from looking at objects."

> *Re: Discworld* "There was about four minutes of talk about a shop and lux warm — I didn't need the irrelevant stuff in it. I was just skipping through it trying to get past it. I didn't want to hear it." and again "there was just too much flesh on the game."

When noninteractive narrative elements such as background story or character information overwhelmed or obscured information the players needed for their goals and activities, Study 2 players did not appreciate it:

> "I thought *Gothic* would have been the best. You just got the information that you really needed instead of wasting time. *Morrowind* … probably gave too much information…It was off putting. You couldn't go anywhere without getting stopped and information was been thrown at you."

Conversely, when background narrative information, such as details of characterization or event history, is interspersed with play activities or presented in small snippets, or perceived by the players as potentially useful for their game play, they enjoyed the information.

C: Build a memory of the player's interaction with game characters into the programming, so that game characters "remember" the player's input.

In repeated encounters with characters, players implicitly expected historical evidence to indicate that a relationship had been established.

> "I noticed if you walked past the people and you have walked past them before, they just shout the same thing at you and I am sure they have a greeting, "Hey Outlander!" or "Hey Stranger!" but they do it every single time you walk past. You would like them to actually remember that you have walked past them before. That is the case in *Morrowind*. It takes the realism out of it a bit."

Players criticized previously presented conversations in which game characters repeated themselves, in contrast to games where interaction is remembered and responded to:

> "Whereas in *Broken Sword* if you talk and talk to a character you can get deeper into what they are saying. They change what they are saying back to you and ask you constantly different questions."

Players want to see the consequences of their actions in the long as well as the short term. For example, players claim that in *Grand Theft Auto* the gangsters won't bother you until you betray the Mafia boss, and then memories are long!

> "In *Grand Theft Auto* you are working with different crime families and they are all at war with each other and you are working with all of them. If you go back to the first island that you were at, everybody wants to kill you. There is nowhere safe because you are enemies with the Mafia, the triads and all these different people, so they all know who you are and want to kill you. So that's quite good. You can't just walk down the street past the gangsters as they will know who you are and try to kill you."
>
> *Re*: *Grand Theft Auto* "They know you from before because you have worked with them and then betrayed them …so they would remember who you were and try and kill you."

Participants said that such long-term memory of their input is not typical of many games they experienced.

> *Re*: *Gothic* "It sort of was different from the other games. When you went up to the guards you would have thought that you could have gone up forever, that they would just threaten you, but that was different. They did kill you."

> "I attacked something in *Gothic* and it wouldn't stop for me. I was running and running and running away from them and they just kept following. I thought that was quite strange, because normally in a game and maybe because these are newer out, but definitely in older games, if you attack someone, if you ran far enough away they kind of just forgot about you and went back. These guys just wouldn't leave me alone and I ended up dying. So that was pretty good. That was quite revolutionary, I thought."

Such a feature also shows a way to connect the sequence of player's actions over the long time period typically required in many games, and a way to establish interactive relationships (both positive and negative) between the players and game characters. Louchart and Aylett[2003],[5] (referencing Schechner, 1983), claim that "the narrative experience is primarily emotional, emotions are at the core of human reasoning and recognition and should logically be implemented in the design of a narrative model." We speculate that building alliances and making enemies might establish at least a rudimentary emotional link between players and game characters.

D: Give players agency and motivation for action, for example, combat situations arising out of the players' own behaviors.

Players felt they were interacting meaningfully through a design that gave them agency. Study 2 players enjoyed combat situations that arose as a consequence of their own aggressive behavior with the game-world inhabitants of *Gothic*, comparing it to *Might and Magic* where combatants just "came at you" for no apparent reason. As a result, "the storyline was based on your choices rather than a stringent outline."

> "In the other games it depended on what you did…but in *Might and Magic* you had to walk along that path and every time you walked along it there were two skeletons in front of you and one shooting from above. You did not have any choice as to how you did it. Every time you started it, it went the same."

The same response to navigation is evident:

> "In *Might and Magic* you did not have to control very hard where you were walking because it was on a path and if you just walked straight, it kind of led you onto the bridges or whatever, whereas in *Gothic* you had to be more in control of your person. That was good. The one I was on, *Might and Magic*, it did not matter what way you walked because there was only one path but in the *Gothic* one, because you can go all different directions you had to be more in control of your character. I fell in the water."

> "I would like *Might and Magic* to be more open. In *Morrowind* and *Gothic* I think there is more of an open feel to it. You could dander round and go different places but in *Might and Magic* it is very stringently laid down where you would go. You have to follow this path. There is no interactivity as far as choosing what path you want to go. It is very laid out for you."

Players want to make choices and for those choices to have effect. Even the negative consequences of errors are accepted as enhancing game realism. Such features give players a sense of agency, that is, they could see that activities and events depended on their input, and this influenced their judgment of the quality of the games.

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[5] Furthermore, one of Louchart and Aylett's requirements for creating empathy between a child user and a virtual character is that virtual events cannot go backwards. For example, protagonists cannot be indestructible or infinitely regenerating, as in most games. The reason they set this requirement is to induce in the child user (of a product aimed at educating against bullying) the idea that characters and users have to live with the consequences of their actions - which a short and long term programmed memory of interaction would facilitate.

E: Ensure that the consequences are measured and appropriate. Players viewed the role of game characters and sought to relate to them with a desire for not just consequences, but calculated, measured consequences, appropriate to circumstance and player motivation, to the player's actions.

> "In *Gothic* the guy sent me to do this task because I needed to get into the castle, and I just wanted to see what would happen if I ran past him into the castle, and the first time I did it the guard stepped forward and went "you can't go in yet". I did it the second time, and the guards this time said "Just one more step and you're dead" sort of thing – some thing different, and I went in the third time and they drew their sword and killed me. So it had two warnings but it was not repeated. That was quite good. But at the same time they didn't just take their swords and kill you the first time you did it. Otherwise you could just be running around and be close enough to the castle and it wouldn't happen by accident, you wouldn't get hit by accident."

> "It sort of was different from the other games. When you went up to the guards you would have thought that you could have gone up forever, that they would just threaten you, but that was different. They did kill you."

How do these findings move the argument forward? If we accept characterization as a key element of narrative (even if not specific to it); and accept that the examples given above show ways in which characterization can become active for players – then this throws up the question as to whether the narrative becomes interactive. This is an important question, given the perception that for players the narrative is not active. It is also important because the critiques do not just raise this question, but provide guidelines for designing relationships between game characters to include more subtle "psychological" issues like trust, suspicion, motivation, and alliances that are meaningful to players and are directly relevant to their experience.

3.2 Preprogrammed Narrative versus Player Control

A number of theorists suggest that narrative is inappropriate for, or conflicts with, games due to the following beliefs:

- the imposition of linear narrative[6] in an interactive framework limits interactivity by restricting a player's freedom of action and control. By "linearity" we mean a predetermined route prewritten by the designer.
- traditional narrative is prewritten, which conflicts with the notion of interactivity, which logically implies that players should control events and influence the future narrative.

However, in our studies, players were uncomfortable with the logical inconsistency of trying to control a prewritten narrative or felt that it impeded their own control, only in certain, what they considered poorly designed, games. Study participants, in fact, expected their choices to be limited and, indeed, even desired that their experience be episodic and directed. On the other hand, they also wanted choice. They expected a well-crafted product to disguise the preprogrammed nature of the narrative, to facilitate their ability to suspend disbelief, and they measured their enjoyment of the interactive experience partly in terms of how well the illusion of freedom of choice was maintained.

[6] "Strictly spoken, hyperfiction of the first generation transfers traditional literary criteria into a new medium, a medium that emphasizes multi-linear narration and perspectivism but does not invent them." Heibach (1999), "Creamus, ergo sumus: Towards a Multimedia Aesthetics".

These tensions are discussed first. We give evidence that in fact players want some pre-programmed control devices, such as episodic structure, linearity, restrictions, and direction. We give examples of how to intertwine linear narrative with a hyper environment, and then list solutions and techniques that the players believe gave them an illusion of freedom, control, and, in some examples, input into the narrative.

In an examination of computer applications of narrative, as found, for instance, in nonlinear fiction, hypertext fiction, or game-books, Costikyan [2000] gives critical examples of the ways in which narrative in an interactive framework limits interactivity. He concludes that these forms make for an unhappy compromise between game and story (e.g., hypertext fiction, which loses its meaning, other than "getting" the story). They are an unhappy compromise: they become neither game nor story. Costikyan states:

> "there's a direct, immediate conflict between the demands of story and the demands of a game. Divergence from a story's path is likely to make for a less satisfying story; restricting a player's freedom of action is likely to make for a less satisfying game. To the degree that you make a game more like a story – a controlled, pre-determined experience, with events occurring as the author wishes – you make it a less effective game. To the degree that you make a story more like a game – with alternative paths and outcomes – you make it a less effective story. It's not merely that games aren't stories, and vice versa; they are, in a sense, opposites."

To advance this argument further, Talin [1998, pp.153-155] presents a taxonomy with narrative at one end of a spectrum and interactivity at the other, claiming that all series of preprogrammed events by the designer are the "enemy of interactivity" and that the longer the sequence, the more interaction is curtailed.

However, take Costikyan's statement that "restricting a player's freedom of action is likely to make for a less satisfying game" and consider the following responses:

A: Players desire some prestructured linearity, in the sense of not having access to certain areas, until they have the skills and resources to deal with or utilize the experience:

> "In *Red Alert* there was certain areas that you could go into but if you went into them you got a warning saying: "Danger – Do not enter!" You enter anyway and you get killed. About twenty people would come down to shoot you. Later on, when you got better armor and better weapons, you could go in but not at that time. I thought that was a nice touch. So don't go in here or you will get killed but once you get to a certain technological level you can go in then, so it keeps the missions linear."

B: They also favor restrictions on leaving certain areas, until they have the necessary clues or resources:

> "I prefer it if you are in a room that you can't leave it until you have found a thing because then you know that you have found whatever you are going to need to finish the rest of the level. There would be nothing worse than walking on and then realizing three hours into the game that the lock pick that you left on the desk in the first person's office, that you need it. It would break your heart."

> "Have you ever had blocks you just couldn't get around?" "Yeah, but usually you just miss something on the way. That's the wee bit of linear push you need because you could do a whole level and you just don't have something to get through. You need a tiny wee push to get the things that you need."

C: The following example illustrates the evidence that players desired their experience to be episodic and directed. In comparing *Gothic* to *Morrowind*, we see that the latter's

openness created delays in the progression of the game, so that the players' enjoyment waned, whereas *Gothic* struck a balance between openness and direction:

> "I thought that *Morrowind* was much more difficult. I was wandering between the same characters all the time whereas in *Gothic* there was more of a pattern. One person would send you to the next who would send you to the next. It was much easier to follow and much easier to work through the game than *Morrowind. Morrowind* just really let you wander. I kept going back to the same characters and asking the same questions which I found a bit repetitive."

> "You have to have some structure but you also have to have some choice to keep you interested and engaged. But if there are too many options you can get bogged down with the whole thing and you end up losing the idea of what the game is supposed to achieve."

D: Players need devices to ensure they encounter essential information and clues. While players were happy to explore, they responded very negatively to wandering "aimlessly" over a long period of time:

> "It can become quite frustrating when you are just wandering round and round and round and you just don't know what to do, so 'Why bother?'"

> "There is only so much time you can walk about without getting bored with it."

The players need tasks, direction, and hints on options to attempt within the game. They define this "wee push in the right direction" as a "bit of linearity":

> "There are some games like *Discworld* where you just run about and do whatever you want but you need to follow some kind of structure to progress in the game. You can run about but you need that wee bit of linearity to go on in the game. You sort of need to be pushed in certain directions because you could spend two hours running about and not get anywhere…a wee push in the right direction. Not completely, like."

> "Generally through these three games it has all been people standing at bridges or at various interfaces throughout the game. It all tends to be people telling you what to do. They are guiding you on your way and without them it would be aimless – just wandering about. It's them that are adding the variety to the game and guiding you, letting you know what the effect is supposed to be and how you are going to achieve it."

> "I think there is a time limit on how long you can be content just walking about or generally being in your own control. I think you need a goal to achieve. You need to know say find this person or find this weapon to get to the next bit. The less direction it has the less interested you are going to be."

Players considered this direction as essential to progress, to their sense of what they are doing, and to their understanding of their immediate and long-term goals.

When designers consider access patterns, they should also think of the players' experience as being linear, in part, since even though there might be multiple options and routes, a player mainly follows one route. As players progress through the game, they, in a sense, produce their own plot lines. Access constraints would have avoided the following complaint: i.e., that the logical sequence of events in *Discworld* was disturbed:

> "I think in *Discworld* you were talking to people in the order of the story as it goes. Say if the game ran alongside the book; and in the book a character appeared at the beginning and the end, you wouldn't be allowed to speak to him until you got that far again. But in *Discworld* you could talk to characters anytime you wanted from various places."

In these examples we see that players' sense-making and ability to progress is in fact facilitated by means such as (a) restrictions on where to go and what to do (i.e., on accessing or leaving areas until tasks are complete or needed resources are available); (b) preprogrammed chronology, so that the logical sequence of events is not disturbed; (c) episodic structure; and (d) directions given to the players. These devices suggest, encourage, or force the player to follow a partially predetermined route. These findings challenge the argument that narrative and games do not mix because of narrative linearity or authorial control devices that restrict the players' freedom and actions. Players appear to actually want such constraints, at least in the role-play and adventure genres, to limit available pathways to those that are dramatic, logical, and discoverable, and thus maximize the potential for enjoyment.

This idea that immersion in games results from "tightly scripted" interactions is supported by Douglas and Hargadon [2001, 159]:

> "For our affective experience to remain immersive, both narrative and interface alike need to overtly guide or curtail our possibilities for action."

But the findings do suggest that narrative and games do not mix *easily*. For example, implementing narrative linear structure is not as simple in the hyper-structural environment of computer games as it is in traditional media texts like films or books, where the linearity of the presentation parallels the linear logic of the raw material. So how can a narrative linear structure be implemented?

The following devices are mentioned by the participants, and introduced in the quotes listed above, for intertwining linear narrative elements with a hyper environment. This is accomplished by means of paced instructions and information: ("But I think it is important as well as having the initial sequence, not having reams and reams of text to have to read on the way through but maybe just the odd prompt. You meet someone and they direct you"); by means of clues or direction (e.g., "go to the house of …"), relying more heavily on causal connections in a fragmented environment; by using rooms or islands ("you can't move to the next level until that bridge gets repaired") containing the space to subdivide a large problem space, for instance; or by restricting access to certain events, areas, and characters, until the logical time for them to appear in the narrative (if a character is to appear at the end, you wouldn't be allowed to speak to him until then), i.e., to follow essential chronology.

However, to increase their sense of challenge, control, and involvement, players also favor choice. From their comparisons of the games, it is clear that commercial games vary in their success in supplying it:

> "I said earlier that *Gothic* was open and there were a number of different ways you could get to your goal. There was a start and a finish and there was a number of different ways you could get there…There is more entertainment. I think *Might and Magic* was very structured. There was no sort of lee way for going off the beaten track or for taking a chance and there weren't enough clues, I wouldn't have thought."

> "They are all good but I think *Gothic* is the best one because it has the best story line…. It just seems that you knew what you were doing and the fact that you had different options and a lot more missions to carry out. You get to choose what camp you get to go to. You could go to the old camp or you could go to one of the other camps. I just liked that – the way you have a choice."

In contrast to the above listing of the means for facilitating programmed authorial control, the following quotes exemplify solutions and techniques that players consider as

giving them an illusion of freedom, control, and, in some examples, input into the narrative:

A: To make a user's skilled input essential for progress (which alleviates the sense of predeterminacy in a prewritten narrative, by providing the user with an illusion of controlling future events):

> "You have to be good enough to get through the level so it is sort of challenging, I think…"

B: Allowing players to freely interact with their environment (and making it sufficiently rich, with, say, dialogue, routes, and resources, while supplying some means for allowing players to navigate through it, such as criteria or clues):

> "I like *Gothic* the best. I sort of knew where I was going and what I was doing and you do get to choose and even the questions you get to choose and you don't have to ask them if you don't want to and there is loads of different characters and different things…"

> "You can choose anywhere in the village to go so it's actually you doing it… in *Gothic* obviously you are guided, as you have to get to the end of the computer game, but there are different pathways that you can take to get to it and I like that about it. I think *Gothic* so far seems to be like that."

Furthermore, players enjoyed "side" quests, that is, the freedom to deviate from an overall goal.

> "There was another game I was playing – *Baldur's Gate* and a war broke out between two sides and there was a letter sent from one side to the other side for peace negotiations. But the letter never got there so you were sent to see what happened to it. You find this body of this wee hatchling on the way and you pick the letter up and you read it. You have to get the letter to the other side before they start a war. That was only a wee side quest that you had to do, it was fun."

(Note that this is a key way in which game narrative differs from traditional narrative. The latter typically has a tight causal structure, in that every aspect serves some purpose in relation to the global goals.[7] But game players say that since they cannot see the end of the game, whether an issue is central to the main macro-narrative goal is not so important to them.)

C: Offering earned clues when players reach an impasse, rather than outside help:

> "I liked, if you need a key, you go to do something for somebody and you get the key. I like that there. It's not easy because you have to do a task to get the key."

D: Allowing the players different skill sets to solve a problem:

> "I like just to generally choose different weapons to kill different enemies. In *Golden Eye* you could have a flame thrower. That could kill one enemy but then if your next enemy is made of fire, a flame thrower is not going to affect him because he is fire, so you might have to use water. So that's a variety of different skills because you are going to need to know which weapons to use to kill different people. If you have a hydro man made of water, you are not going to be able to kill him with a water gun or a big water pump, but you might be able to kill somebody made of fire. I think *Final Fantasy* is like that where you use the different elements of nature to fight different elements of nature."

[7] This idea that material should be included by writers and designers by the dictates of plot and characterisation, engenders a particular dynamic, attested to by Todorov, (1975): "Events selected and arranged in the plot are motivated in that they have functions and serve purposes. There are no superfluities. Everything the plot churns in its wake is part of the narrative momentum, either regulating or thrusting its onward pull towards narrative closure."

E: Allowing the players different approaches to solve a problem:

> "It's very frustrating if you are getting the same information over and over again."
>
> "What devices would help you?"
>
> "Alternative actions that would give you the same end result. You could buy your way into the castle or you could smuggle your way into the castle. So if you exhaust one avenue you could try the other one, so it gives you something to think about. Whereas if there is only one way of doing something and you come up against a dead end you quite quickly get bored of it."

F: Setting up options so that the players' skills at strategy are invoked in selecting among the options:

> "The decision making was trying to work out the best and most efficient way to get in. Say in *Gothic,* trying to get into the castle whether it be by fighting your way in or by using your wit to earn money and pay your way in. It's very much geared towards the actual gamer depending on his or her own skills. I liked that."

G: Introducing an element of chance to add uncertainty to future events:

> "How would you improve these games if you were the designer?"
>
> "If you are playing *Tomb Raider* or something like that I would say that you would need it to be more random, more chance and the events that happen are due to events that have occurred in the past. So say you shot someone then something different might happen than if you missed them."

These features helped to alleviate the players' sense of simply following pre-written story pathways, made them feel that they have to work towards the goals, that the ability to achieve goals depends on their skills, that they have choices over what input to give, and that their input is significant to future events.

Thus, in response to the argument that narrative is the "enemy" of interactivity, we offer the techniques above as ways of circumventing the logical conflict of players living out a prewritten story, allowing them to suspend disbelief and participate in the fiction.

Declarative and procedural interplay. If players' criterion for assessing games is how well the illusion of choice and freedom is given or the extent to which the designer's control over events (i.e., preprogrammed events or linearity) is disguised, it might be suggested that such features should just be removed. Why not, in essence, remove the prewritten narrative? The answer is that players want it because it adds significant dimensions to their experience. Furthermore, balancing control for the designers against freedom for the players, suggests solutions to potential conflicts that themselves enhance the user's experience, as above.

One way to look at these tensions (the desire for a narrative versus the wish to deviate from it, the desire to control the outcomes of a prewritten narrative, the need for some linear elements within a hyper structure) and to understand how they may fit together is to consider a game as declarative knowledge and an instantiated narrative as procedural knowledge (as distinct from the more abstract narrative form).[8]

[8] The term "instantiated" is used because the more abstract narrative form, (as distinct for instance, from a particular film, novel or narrative game) can be implemented through many actual narratives or stories. The abstract conceptual narrative form could be seen as declarative, because the characteristics Elsom-Cook (2001) specifies for a declarative form, such as the creation of the 'action potential', with activation of this knowledge base being at the disposal of the user or speaker, accounts for the many many ways of implementing narrative.

According to Elsom-Cook [2001], declarative knowledge sets out what can be done, rather than how to do something. It provides a descriptive, conceptual representation of the "action potential" open to the designer or user. Grammar in linguistics, which describes the abstract structure underlying what can be produced in a language, is an example. The grammar does not specify what will be done; the creative activation of this knowledge base is at the disposal of the user or speaker. It provides for systematic, formal description, while retaining creativity in the activation of that knowledge. A map is an example of declarative knowledge. A map knowledge-base can be used to construct a route from any location on the map to any other location on the map *via* a range of "valid" steps. Games appear to fit Elsom-Cook's definition of declarative structures. Osborne and Rubenstein [1994, p.2) define a game as "a description of strategic interaction that includes the constraints on the actions that players can take and the players' interests, but does not specify the actions the players do take." Elin [2001, p.69) uses this definition and builds on it: "a game is the description of a playing field, objectives, rules, certain constraints, and behaviors possible within the playing field. Players are free to move within these boundaries while attempting to find the strategic solution or best possible outcome in their own self-interest."

Conversely, by virtue of its sequentiality, a traditional narrative might be perceived as having, at least in part, a procedural structure. The procedural mode contains guidelines or instructions on how to do things. For example, using a software process approach, a VCR, a remote control, or a cooking recipe is an example of procedural knowledge. The tensions between sequential narrative and game play could be viewed as lying at the juncture between procedural and declarative knowledge.

But the two kinds of knowledge can be combined. Procedural knowledge (the narrative) can operate in a declarative framework (the game). For instance, procedural knowledge might be activated across a declarative landscape by providing specific procedural heuristics or guidelines to use within a range of alternatives, or by a multimedia designer who, faced with a multitude of ways to create a product, might use a set of procedural guidelines or developmental methods to structure the creative process. To use the map analogy, different routes may be available to get to one location. Written directions (the narrative analogy) might define one route and signal the parts of the map (or game) to be traversed to get to key points, and perhaps suggest options for sight-seeing. Looking at narratives and games in this way explains the need for linearity, a preprogrammed plot or direction, versus the need for user choice and control. Such a model suggests ways of circumventing conflicts between them, while maximizing the possibilities for the coexistence of narrative and interactive elements.

4. DISCUSSION: COMPLAINTS VERSUS GAMERS' REALITY

So in response to complaints that the "play starts when the story stops" our findings suggest a number of ways to advance the narrative with the play, discussed under the following assumptions, complaints, and challenges:

- games and narrative "rule each other out";
- because notions like "restrictions," "direction," and "linear-structure" are in a sense the opposites of "freedom," "choice," and "hyper-structure," they must be in conflict;
- games are interactive, narrative is not.

Complaint: In the introduction we encountered Juul's [1999, p.1] complaint: "we are facing a conflict between game and narrative: They are two separate phenomena that in many cases rule each other out."

Gamers' Reality: Contrary to such complaints, the participants' response indicates that well-designed narrative structures and devices increase engagement with role-play and adventure games. Without good narrative, the players had a poorer quality, more impoverished, experience.

The findings did identify a number of deep-seated tensions between linearity, hyper-structure, interaction, games, and narrative, tending to agree with the arguments that narrative and games should not mix. However, a key difference is that the participants' responses do not say that they *cannot* be mixed. If fact, participants note solutions and ways to combine them, with the solutions themselves enhancing their enjoyment. Furthermore, participants' responses clearly show the value of finding such solutions, as narrative elements add value to their experiences by providing the following benefits to players:

- giving a context for what the players do in the game, (via the macro narrative or background story, which gives purpose and motivation, e.g., skeletons don't just "come at you" for no reason);
- justifying the type of activities the players engage in;
- helping to make sense of the game (via direction and clues);
- helping to make progress in solving tasks (via goals, direction, and clues);
- preventing encounters with obstacles that might overwhelm the players' experience, resources, or skills;
- helping players achieve presence or identification within the game world (by establishing relationships with game characters, denoted by long- and short-term programmed memory of the players' input);
- adding depth by invoking psychological elements such as trust, suspicion, alliances, etc., and using them in interactions with game characters;
- maximizing players' time in activities that are goal-bound and dramatic, where players can make progress via a predefined plot line (with options to deviate from it); and by
- supplying structure at multiple levels within the game.

Criticisms of narrative devices within a game (Talin, Adams, Costikyan etc.), seem unjustified, since we found that players wanted them. So elements such as linearity, authorial control, a prewritten plot or episodic structure can stand up and take their place as valuable additions to games, instead of cowering behind notions like "freedom," "choice," and "interaction" (where many game theorists place them). Participants suggested that such elements provide the constraints, structure, and solid basis that make "freedom," "choice," and "interaction" possible.

***Assumption*:** An assumption underlying some of the above criticisms is that notions like "restrictions," "direction," and "linear-structure" are opposites of "freedom," "choice," and "hyper-structure," and must conflict.

***Gamers' Reality*:** Players clearly indicated that within a very open game environment they need some constraints, precisely to give them structure. What seems to be missing in

a number of criticisms is an appreciation that structure and constraints can provide the basis for freedom and creative action. A parallel justification for the role of constraints is found in Laurel's examination [Laurel 1993, p.101] of the relationship between creativity and constraints (in her examination of this issue she cites May [1975] in explicating how constraints provide form and direction):

> "Creativity arises out of the tension between spontaneity and limitations, the latter (like river banks) forcing the spontaneity into the various forms which are essential to the work of art…The significance of limits in art is seen most clearly when we consider the question of form. Form provides the essential boundaries and structure for the creative act [May 1975].

We believe that narrative serves such a function in games, i.e., that noninteractive narrative elements, when well-crafted, supply structure. We suggest a model for explaining how games and narrative could work together in terms of procedural knowledge operating with a declarative framework.

***Complaint*:** Another frequent complaint is that games are the interactive part and that narrative is not.

***Gamers' Reality*:** The above notion**]** is challenged by the participants' responses, which provide pointers on ways to make narrative interactive.

We argue that where players' actions and behaviors are programmed into game memory, resulting in the players building relationships with game characters (such as alliances and enemies) and where these relationships become consequential to game play, characterization becomes interactive for players.

It can also be argued that a number of the suggested solutions for helping people feel in control of a prewritten narrative (choosing among earned clues, choosing an approach to problems, and which skill sets to use in doing so) are ways to make the narrative interactive: the goal to aim for is prespecified, but the process to achieve it is not. How to fulfill these goals is partly under the user's control. If we refer to narrative theory, we see that the "how" of narrative is equally as important as the "what". For example, Chatman's [1978, pp.19-20] view of the term *narrative* contains both story and discourse. He explains,

> "that each narrative has two parts: a story (histoire), the content or chain of events (actions, happenings), plus what may be called the existents (characters, items of setting); and a discourse, that is the expression, the means by which the content is communicated. In simple terms, the story is what in a narrative is depicted, discourse the how."

A counter argument is, of course, that the designer still designs the ways in which the tasks might be accomplished (and due to resource constraints, probably a limited number of ways); that "how" the goal may be achieved (e.g., which approach to take, the choice of earned clues, and which skill set to use) is still a matter of the player selecting a pre-written route to it. However, throughout these experiments it is the "illusion" of choice and control, not its actuality, that is important to participants

> "You would actually just forget about the fact [in *Broken Sword*] that it is pre-set and that these things are always going to happen. Because it is so good you would think 'oh yea, it's just totally random, totally undirected'"

> "I think it was very seamless. For example, one of the scenes is outside a French cafe. It could be a scene of a film — and you are controlling the character, but you still could be watching a film ... it looks like a film but you are still in control."…"You were controlling this feature film, that sort of kept you enthralled."

Seeking ways to (a) integrate noninteractive narrative elements with game elements, so that the former do not impede the latter; and (b) to understand how to make the narrative interactive, is crucial, given the potential for narrative to be sidelined, and thus inhibit the maturation of good interactive narrative. This goal is worthwhile, as it is clear from the participants' responses in two empirical studies that the narrative is important to them, and that even if immature, it adds significant dimensions to their game-play experience**.**

5. CONCLUSION

The discovery of the empirical manifestations of narrative in multimedia game products and a means to assess their effectiveness or quality in adventure and role-play games are the challenges discussed in this article. While not exhaustive, the discussion provides a number of solutions to the question of defining and locating narrative elements in games.

We need to understand the changing nature of narrative form before it can make its full contribution to good game experiences. There are potential clashes between the game, interaction, hyper-structure, and narrative; but these elements need to be reconciled and solutions to conflicts must be found. The findings of the empirical studies go some way toward supplying possible solutions to disturbances and tensions between the narrative and games. A lack of recognition of the differences between traditional and "new" narrative has produced difficulties and design flaws in a number of game products, and furthermore has hampered some storywriters from making the transition to the new medium [Talin 1998]. Guidelines on potential problems, pitfalls, and avoidance strategies, as suggested here, assist novice writers in making the transition. Coming to grips with narrative demands and developing sensitivity to their application in game design can only grow in importance in the future.

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