# Narrative Involvement in Digital Games

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**ABSTRACT**

This paper claims that the spirited debates about game narratives in the game industry and academia have not seen much progress due to their being too stuck in classical notions of narrative developed for non-ergodic media such as film or literature. The argument forwarded here is, therefore, that we need to re-conceptualize our notion of narrative considerably in order for the concept to be productive in the context of games. This re-conceptualization needs to take into account the cybernetic nature of games and thus factor in the experiential dimension of the human as well as the formal properties of the game.

Due to length limitations the paper will focus primarily on the experiential side of the game/player equation. This dimension has, so far, presented considerable difficulties in finding a solid theoretical model upon which to be based, resulting in overly vague conceptualizations thereof. This paper builds on the Player Involvement Model described in Calleja's *In-Game:From Immersion to Incorporation,* in order to arrive at a solid framework for understanding experiential narrative in games.

**Categories and Subject Descriptors**
J.5 Arts and Humanities

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Humanistic Theory, Narrative

**Keywords**
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## 1. Introduction

While we can confidently say that games like *Dishonored* or *Skyrim* contain narrative elements, such a claim is not as straight-forward when it comes to games such as *Tetris* or *Bejewelled.* In the case of *Tetris* and *Bejewelled* the representational elements are more symbolic than the first titles and they are also more functionally limited, in the sense that they afford a much narrower set of possible actions. Drawing a neat line between the two is not an easy task. Do we attribute narrative to the formal qualities of the game, as classical narratologists like Chatman [1], Prince [2] and Genette [3] have done? Or, do we view narrative formation as an inherent aspect of human consciousness and sense-making that is imposed on all we experience, as Dennett [4], Bruner [5], among others, have claimed? If we take the former as our starting assumption, then we could, potentially, arrive at a typology of game elements that would differentiate between those that emphasise narrative and those that do not. A more radical perspective on this would be to argue that games are incompatible with narratives [6,7]. The problem with looking solely at the formal qualities of games is that it ignores their defining quality: ergodicity [8]. As Dovey and Kennedy [9], Giddings and Kennedy [10] have argued, the feedback loop between game and player implies a mind that reads output from the system and provides input accordingly. If we turn our attention to the broader second perspective, which views narrative as a universal quality, we run the risk of treating all lived experience as narrative and thus ignoring the particular qualities of the object of study. Juul [11] has argued against this generality of the narrative concept:

> The narrative turn of the last 20 years has seen the concept of narrative emerge as a privileged master concept in the description of all aspects of human society and sign-production. Expanding a concept can in many cases be useful, but the expansion process is also one that blurs boundaries and muddle concepts, be this desirable or not. With any sufficiently broad definition of *x*, everything will be *x*. This rapidly expands the possible uses of a theory but also brings the danger of exhaustion, the kind of exhaustion that eventually closes departments and feeds indifference. Having established that everything is *x*, there is nothing else to do than to repeat the statement. [11]

While it is true that over-generalisation can lead to a loosening in the analytical utility of a concept, we cannot ignore the fact that the players activate the story elements of games. By activated I mean that even if games have very determined storylines, players still need to interact with the system in order for the pre-written storyline to be actualised. A productive foundation of a theory of narrative for games requires that the experiential dimension be taken into account, but this does not necessitate an all-inclusive view of narrative. The experiential story that the game generates is not entirely open-ended but depends upon the players' interaction with the game's coded rules and mechanics, its semiotic layer and more often than not the scripted story that has been written into the game:

> The game experience is therefore halfway between living life and watching a movie. Moreover, game action operates on symbols, within a designed environment, whereas real-life action operates on material objects within a world thrown together for no obvious purpose. [12]

Although Ryan [12] is here referring specifically to games, Barthes [13] makes a similar argument in his famous essay 'Introduction to the structural analysis of narrative'. He opens the paper by making an argument for the pervasiveness and transmediality of narrative:

> The narratives of the world are numberless. Narrative is first and foremost a prodigious variety of genres, themselves distributed amongst different substances – as though any material were fit to receive man's stories. Able to be carried by articulated language, spoken or written, fixed or moving images, gestures, and the ordered mixture of all these substances; narrative is present in myth, legend, fable, tale novella, epic, history, tragedy, drama, comedy, mime and painting (think of Carpaccio's *Saint Ursula*), stained glass windows, cinema, comics, news items, conversation. [13]

Barthes' agenda is not, however, to expand the concept of narrative to unusable elasticity; quite the opposite. The rest of his paper proposes a structured system with which to analyse narrative, later implemented in his structural analysis of Balzac's *Sarrasin*e in *S/Z* [14]. As Barthes argues, we do not need to abandon the power of narrative as a concept in order to analyse the narrative qualities of a particular medium or text:

> There is a world of difference between the most complex randomness and the most elementary combinatory scheme, and it is impossible to combine (to produce) a narrative without reference to an implicit system of units and rules. [13]

As Ryan [12] has stated, game environments have reached a sufficient level of sophistication that not only allow, but demand a redefinition of classical notions of narrative. The manifestation of narrative in digital games requires a specific perspective of analysis that takes into account the on-going, cognitive generation of narrative while grounding it in the semiotic and mechanical layers of the cybertext. In other words, a coherent narrative framework needs to simultaneously address the experiential and formal aspects of digital games. Although this argument is particularly pertinent to games, it has existed in all media that convey narrative. The signs on the page of a novel are meaningless without the images they create in the readers' mind. The stream of sounds and images, although of a more iconic nature, still require the active interpretation of the viewers in order to make sense. The audience supplements what is being viewed on the screen with their own interpretative input: Did Gandalf survive the precipice? What is Gollum really plotting? And so forth. This is an important dimension to narrative and even more potent in games because the resulting deductions of this sense-making process results in input from players that generates the enactment of the game. In other words, the cybernetic loop that players enter into during game-play requires a perspective on narrative that goes beyond that which has been pre-packaged by designers. In non-ergodic media, the experiential dimension of narrative might be different from what is presented on the page or screen; there is always a certain slippage between the narrative intention of the author and construction of narrative from the reader/viewer's part. Such slippage is more distinct in works that actively seek to play with meaning construction like *Lost Highway*, *Continuity of Parks*, or *The Circular Ruins* than in a more traditionally structured narrative like Tolkien's *Lord of The Rings*. But it would not be outrageous to claim that there is a more direct correlation between the narrative intentions of the author and the experience of the same narrative in non-ergodic media than is the case in ergodic ones. In a game, even if the designer imposes a linear progression on the narrative, the individual events cannot be discretely pre-determined.

The designer can impose an overall structure to the narrative; a beginning, end along with the intervening major events and conditions for progressing the narrative further, but cannot constrain the player to act in a specific way while retaining some form of ergodicity. Narrative in games operates on two broad levels: that which is pre-scripted by the designer and implemented into the game, and the ongoing creation of story through player interpretation and practice. *Narrative in games cannot, therefore, be considered only as a formal quality, separate from the acting player.*

**2. Experiential Narrative?**

A challenge facing a game theorist who finds the notion of experiential narrative analytically productive is to define what is meant by the term without collapsing all forms of experience related to the game as narrative. Although experiential, or emergent, as it has sometimes been called, narrative is strongly related to the cognitive faculties of the player, it does not mean that it exists in the mind of the player without relation to the properties of the artefact that engendered it. Quite the contrary, as Iser [15] has argued in the context of the reading process, the experiential dimension of game narrative is rooted in the (cyber) textual properties of the text at hand. Frameworks proposed by theorists that have approached the experiential side of game narratives have failed to adequately address the interaction between sign, code and mind, resulting in over-generalizable notions that are scarcely productive in specific analyses.

Pearce [16], for example, proposes a set of six narrative elements that may be found in games, the first of which is a component of all games, while the other five occur in different combinations. She briefly outlines the six narrative elements, or "operators": Experiential, Performative, Augmentary, Descriptive, Metastory and Story System. Experiential elements relate to the "emergent narrative that develops out of the inherent "conflict" of the game as it is played, as experienced by the players themselves". This becomes a performative narrative when viewed by an external, non-playing audience. The augmentary narrative includes various "contextual frameworks" like the game environment's backstory. The descriptive narrative describes the retelling of game events to third parties. The metastory, on the other hand, refers to the game's actual story-line, while the story system refers to the underlying rules and code that generate the above mentioned forms of narrative.

Although Pearce's attempt is notable for its acknowledgement of the importance of player activity in forming the on-going story, it suffers from over-generality that does not make the framework particularly useful. She applies the framework to describe the

narrative aspects of a game of basketball and later discusses *Tic-Tac-Toe* and *Battleship.* As I argued earlier, it seems largely uninteresting to discuss the narrative of a game of *Tic-Tac-Toe* and one would be right to be suspicious of a narrative framework that claims to be constructively applicable to such a wide spectrum of activities and media objects as basketball, *Tic Tac Toe, Battleship,* Chess and *The Sims.* As Aarseth [6] argues, if we attribute all forms of experience related to a game as a form of narrative, the concept loses all analytical value.

Pearce [16] formulates the performative operator as a narrative created by an audience watching the players (or their avatars) playing. A constructive analytical framework needs to differentiate between the narrative experienced by the player actively engaged with the game and a derivative, or secondary, narrative that is produced out of this, which becomes, in effect, a form of synopsis. There is an important distinction to my relating the events of *The Matrix* from the narrative presented in *The Matrix* itself. The qualities of the secondary narrative inevitably depend on the original narrative (unless I decide to make them up entirely or have a terrible memory), but it does not seem like a relevant aspect of a framework that describes the story elements of game environments. Similarly, Pearce's descriptive operator also produces a secondary narrative. While the descriptive operator refers to the retelling of the event by a third party describing the game, the augmentary operator relates those descriptions in a production of a text. This is yet another form of secondary narrative which seems only marginally different from the one generated through descriptive operator. Whether it is the player re-telling the events of the game or someone else describing the events of the game or an inscribed version thereof, the resultant product is a re-telling of the story formed through engagement with the game environment and therefore falls outside of the scope of our framework.

Like Pearce, Salen and Zimmerman's *Rules of Play* [17] emphasize the experiential dimensions of story elements in games. They sidestep the discussion relating to the perceived opposition of games and narratives discussed above by focusing on how narrative is experienced in games. *Rules of Play* takes game design as its primary focus and like other practicing game designers, Salen and Zimmerman take the presence of stories in games as a given. Reading through articles on Gamasutra, talks at the annual Games Developers Conference and various game design books it is evident that the central question for game designers is not whether games are stories but, how best to convey stories through games. In his 2008 talk at the Game Developers Conference, *Bioshock* creative director Ken Levine [18] advocates designers to move towards what he calls a "pull" narrative instead of the more traditional "push" mode of communicating story. In the push mode the story is forced upon players through devices such as cut scenes while the pull story mode emerges from the players' interaction with the environment. In an *Edge* article [19] GTA IV lead designer Sam Houser discusses how the dynamic system of the game environment creates moments that feel like pre-scripted narrative events. As increased storage and processing power enables designers to create more complex game worlds, the emphasis on the potential to tell dynamic stories is steadily increasing. Like Salen and Zimmerman [18], the emphasis in the majority of these talks and articles by game designers is on the players` experience of narrative. When the focus shifts from a pre-scripted to an experiential mode of communicating story the discussion, both in academic and design circles, there is a tendency to equate all aspects of game experience with narrative.

Salen and Zimmerman [18] adopt Marc LeBlanc's distinction between embedded and emergent narrative. The distinction is invaluable as a starting point for building a framework to understand narratives, particularly because the emergent narrative component accounts for the systemic structures of games

> It is the dynamic structures of games, their emergent complexity, their participatory mechanisms, their experiential rhythms and patterns, which are the key to understand how games construct narrative experiences. To understand game narratives, it is essential to analyze game structures and see how they ramify into different forms of narrative play [18].

This call echoes Aarseth's [17] intervention in *Cybertext* which stressed the importance of taking into consideration the mechanical, coded structures of ergodic texts, not merely their surface signs. In order to develop a coherent and sustainable framework of narrative analysis to be used in the context of game environments the emergent narrative that LeBlanc, Salen and Zimmerman are referring to needs to be anchored in the game elements that generate such a narrative. The major challenge here is to not let the experiential nature of this component of narrative become so general as to become unusable, as was the case with Pearce discussed above.

Although I would agree that we need to look at *how* games create stories, Salen and Zimmerman, like Pearce, stretch the notion of experiential narrative beyond its limit as a useful concept when they fail to make the distinction between abstract games, sports and virtual game environments:

> The dramatic tension of Poker, too, gains its bite from the uncertainty of outcome. Bluffing contributes to the narrativity of the experience, heightening the potential for deceit. As players enter into the psychological space of the bluff, narrative tensions mount. Does she really have the hand she says she has, or is she bluffing? What if she isn't bluffing? Can she still be beaten? He just made a large bet, so he must have a good hand. But he bluffed last round, and he wouldn't try that same trick twice in a row [18].

The importance of experienced narrative to a framework of narrative in games becomes problematic when we can apply the concept to any interaction with the game system or thoughts relating to it, as in the example given above. Although the experiential dimension of narrative is crucial, it needs to be rooted in the specific characteristics of the medium in question and the specific (cyber)text in particular.

Ryan builds a theory of narrative across media by emphasizing the cognitive elements of narrative while retaining the structural characteristics thereof outlined by narratologists like Chatman [1], Genette [3], Prince [2], Bal [20] and others:

> Narrative is defined as a mental image, or cognitive construct, which can be activated by various types of signs. This image consists of a world (setting) populated by intelligent agents (characters). These agents participate in actions and happenings (events, plot), which cause global changes in the narrative world. Narrative is thus a mental representation of causally

> connected states and events which captures a segment in the history of a world and of its members. [21]

Ryan's definition thus aims at structuring the experiential aspect of narrative to avoid the over-generalization and vagueness found in other conceptions thereof, as described above. The move away from the formal towards a cognitive conception of narrative is necessary for Ryan, since her work emphasizes the trans-medial. In order for a narrative definition to work across media forms it will necessarily be somewhat generic. Ryan's definition offers a good foundation upon which a more thorough, game-specific framework to be built.

## 3. Solution: Narrative Involvement

One way of developing such a framework is to build on existing models of player involvement that take the narrative dimension into account. The rest of this paper does just that: it outlines a framework for understanding and analyzing game narrative based on The Player Involvement Model. [22]

The Player Involvement Model is described in detail in my 2011 manuscript *In-Game: From Immersion to Incorporation* [22]. In this book-length treatment of player involvement I use the model as a foundation upon which to build further investigations into player experience including a nuanced register that identifies six aspects, or *dimensions* of involvement, each considered relative to two temporal *phases*: the macro and micro. The dimensions are not experienced in isolation but always in relation to each other and should thus be seen as layered and transparent in nature. This means that one dimension influences how another is perceived and interacted with. They are transparent in that their layering does not occlude what lies beneath, but changes the perception of both. The dimensions of the Player Involvement Model similarly combine in experience, with the inclusion or exclusion of a dimension effecting how others operate.

The combinatorial aspect of the model makes it particularly useful for developing a framework of experiential narrative and thus arriving at a fuller understanding of game narrative in general, since it allows us to combine the narrative dimension found in it with the other dimensions and thus examine the relations of narrative experience with other aspects of game involvement.

The six dimensions of the player involvement model are *kinaesthetic involvement*, *spatial involvement*, *shared involvement*, *narrative involvement*, *affective involvement*, and *ludic involvement*.

The rest of this paper shall take each of these dimensions in turn and apply them in the context of experiential narrative. Each section starts with a quote from *In-Game* [22] describing the original dimensions of the model and then we go on to exploring the combinatorial nature of the model by conjugating the narrative involvement dimension with each of the other dimensions. We will then consider the relationship, if any, between these newly formed combinations of dimensions and the story elements. The latter are referred to by varying terms and configurations, but there is a general consensus in there being building blocks of narrative that cut across media. Chatman [1] calls these elements "existents and events" of story: actions, happenings, settings and characters. Ryan [12] identifies settings, characters, events and plot. Scott-Card [24] describes them as the four factors of stories: "milieu, idea, character and event". Milieu corresponds to Chatman [1] and Ryan's [12] setting while idea is not present in the other two and refers to the problem, puzzle or bit of information that the reader discovers as the story unfolds. The latter, although absent from most other theories of narrative structure, is important for game narratives as their ludic nature often presents narrative as instruction rationale and reward for attaining game goals.

## 4. Kinaesthetic Narrative Involvement

> Kinaesthetic involvement deals with all forms of control and movement in the game. The potential for action is defined by the movement affordances designed into it. [22]

In literary or film narrative events are presented to the reader/viewer in the past tense. The actions have already happened. In games actions are performed by the player and constitute the fundamental aspect of engagement with the game. The nature of narrative as a sequential order of events [1, 2, 3, 20, 21, 22] requires modes of what Altman [23] calls forms of "following" [23], or modes of connecting a chain of events. Games switch between long periods of player-controlled action and shorter sequences of pre-scripted narrative chunks delivered through various channels of delivery such as: animated cut-scenes, voice-over narrations, blocks of text, comic-strips and more. Some games do not contain sequences of pre-scripted narrative at all, but still afford narrative involvement nonetheless. Elsewhere [22], I have called tagged these forms of pre-defined narrative under the heading of "scripted narrative", and will continue using this term here. Some of these forms of scripted narrative trigger shifts in diegetic time, such as flash-backs, flash-forwards and concurrently occurring events to those enacted by the player. Aside from these operations, which we will discuss further in the Scripted Narrative Involvement section below, events in games are strung together through player actions. Some of these actions have greater narrative relevance than others to the individual. This is not an objective form of narrative relevance, but is dependent on the meaning the player in question attributes to the action and it's consequences within the context of the on-going generation of story in the game.

This dimension thus relates strongly to the "events" category of the story elements outlined above. In the commonly made distinction between satellite and kernel events [1] kinaesthetic narrative involvement most often creates satellite events, since the string of actions in questions could often have been done in different ways without changing the overall sequence of narrative events. Having said this it is debatable whether the distinction between satellite and kernel events is of particular use in the game context since there are games where kernel events can be bi-passed or ignored altogether, or indeed they do not actually exist, at least in the form of scripted narrative. Chatman describes how kernel events advance the plot, but only certain types of scripted-narrative heavy games contain something that resembles a plot. In other cases, such as *Planetside 2, Minecraft* or *Sims,* to name a few, there is little or no equivalent of a scripted plot. This does not mean that these games do not afford strong experiential narratives, however, only that such narratives are not dependent on an author dreaming up and delivering a pre-scripted sequence of events to players.

**5. Spatial Narrative Involvement**

> Spatial involvement is related to cognitively mapping one's immediate surroundings as well as exploring and navigating the larger area of the game-world. [22]

The spatial structures of games have an important influence on the structure of the narrative. The more restricted the spatial layout of a game environment, the easier it is for designers to tell their own story. This is because it becomes easier for designers to trigger specific events in the world if these are attached to a pre-defined location that the player must cross in order to explore the spatial layout further. In an open environment which allows players to travel where they like, scripted narrative needs to be tied together in other ways and the experience cannot be as tightly controlled, since players may decide to wander off into areas other than those intended by the scripted narrative. There is thus a close relationship between the type of spatial involvement offered when certain narrative structures are adopted, at least in the case of scripted narrative.

The strictly linear scripted narrative of a game like *Halo 3,* for example, is best set in spatial environments that have one specific point of entry and one specific point of exit. The game allows for some variation on getting from one point to the, but players quickly realise that the spatial experience is limited to a uni-cursal labyrinth with a single solution. The expectation of a single correct spatial solution also means that the scope for free exploration and the engagement that may provide is limited.

The reduced breadth of spatial involvement in such linear environments can also diminish the engagement with experiential narrative. In labyrinthine, and to a certain degree also maze, spatial structures engagement with the scripted narrative tends to be more dominant than the experienced narrative, even if the latter is always present to some degree. The story the players are living out is not their own, but somebody else's. They are merely activating a pre-formulated narrative. This can be deeply engaging if the scripted narrative captivates them, but it can also risk reducing engagement if it does not. More open-ended spatial structures give greater scope for the generation of a varied experienced narrative that players feel is their own. This means that to engage players, designers need not necessarily rely on pre-fabricated narratives but can instead provide stimulating elements (both systemic and representational) that inspire players to create their own narratives. *Mount and Blade* is a good example of a game environment, which invites players to construct their own narrative without relying on any scripted narrative progression. Instead, the game provides snippets of scripted narrative in the form of quests given by characters that players interacts with, and generates the potential of narrative events by providing an environment populated by entities that follow an artificial life model with whom to interact. The world is not particularly rich in detail, but the spatial involvement it provides is greatly enhanced through its combination with shared involvement (with the AI controlled entities interacting with each other and the player) and narrative involvement.

Spatial narrative involvement is closely aligned with the "setting" story element. It accounts for the world in which the narrative is generated and inflects this formation through the landscape it affords for habitation and the general mood that landscape is tinged with. Like the other story elements it's hard to envisage a narrative without a world to be located in. The point of discussion that follows is what are the basic elements that constitute a story-world, although there is not enough space here to develop it further.

**6. Shared Narrative Involvement**

> Shared involvement covers all aspects related to the co-habitation of a common environment, ranging from collaboration to competition or the mere presence of others. [22]

In a multi-player game, whether it's an MMOG like *World of Warcraft,* a networked game like *Left 4*, or a cohabitation of the same screen in a local game of *Fable II*, other players become characters in the on-going creation of the experienced narrative. The most narratively significant characters in multi-player games are not the ones inserted by the game designers, but other players themselves. Their actions are enthrallingly unpredictable and most importantly we become characters in *their* experiential narrative. Multiplayer games, therefore, create a situation akin to improvised theatre where all participants are at once audience and actors, influencing and being influenced by each others' presence and actions. It goes without saying that designers have less control over the narrative qualities that other players bring to the game, but as *Left 4 Dead* has shown, the careful engineering of parameters within which players collaborate and compete combined with an interesting, yet functionally viable back-story, have the potential to turn players into dynamic characters in one's experiential narrative. The potential for expression depends on the communicative affordances of the avatar in the particular game. MMOGs tend to incorporate "emotes" which are gestures that an avatar can perform which have no functional role in the ludic aspects of the game, but are used for social communication. These emotes display actions, such as: pointing at a particular direction, laughing, cheering or displaying the state of the avatar (for example: tired, happy, angry and so on).

Some MMOGs also contain specially designated "role-playing" servers where players are encouraged, if not required, to play "in-character". Players draw up a background history and personality for their avatar which they play out in game sessions through their actions, emote and chat discussions. Linderoth [25] has observed that some RP guilds even attempt to integrate the more mechanical, rule-based events in a game to fit the on-going generation of collective experienced narrative:

> Instead of accepting the different logics under which each frame exists they yearn for a game experience where the "game context" has become invisible. Where other role-players might have used *rules of irrelevance* to omit incongruities between rules and fiction, these players sometimes create plausible explanations for why the game or other players behave in a certain way. They systematically make narrative re-framings in order to get the feeling of being immersed [25].

The emphasis on a collectively executed and upheld effort aims to preserve the congruence of the game world's setting and promote the role of other players as believable characters in the on-going generation of an individual's game narrative.

Shared involvement is strongly related to the story-element of "characters". The great innovation that games bring to a re-conceptualization of narrative in this dimension is the existence of other human actors in the individual's experienced narrative. It also expands the spectrum of characters from the simplest, or flattest, possible quest dispensing machine to a well acted human controlled character playing a specific narrative role.

### 7. Affective Narrative Involvement

> This dimension describes the affective properties of games with particular reference to their aesthetic and mood-altering properties. [22]

Events portrayed in literary and filmic narratives portray only actions that the writer/director deems are important to the overall progression of the narrative. Even more mundane and seemingly uneventful sequences play important functions such as description of spaces, development of characters or delivering contextual background information about any of the narrative's existents. Aside from the latter examples, such lulls in dramatic action are crucial to create contrast with more intense moments by turning down the tempo of action and turmoil. In games, the designers can only control this narrative tempo by means of scripted events. At other times, and in games with few or no scripted events, the sequences which tend to have most narrative relevance are those which involve the player emotionally.

To give an example, a team of friends are playing through a level of *Left 4 Dead 2* and three of the team are close to reaching the safe house, injured and low on ammunition. One of the players is limping and has fallen behind. The three reach the safe-house and their friend is shouting for help over her microphone as she has run out of ammo and is being overrun by zombies. The three have a spirited debate about going to help or leaving their friend behind. One runs off in mid-debate and goes to help their friend, finding her on the ground being slashed by a hunter zombie. The player is also running out of ammo and the situation is becoming more dire by the second. These circumstances have created an emotionally charged situation which thus becomes narratively relevant. There are several factors that lead to such a situation: the game rules, the spatial layout and the relationship between players among others. The important point is that out of the long stream of actions in games, the ones that are narratively interesting tend to be those that are emotionally charged.

This combination of dimensions differs from the others in that while the others are strongly tied to one of the elements of story, affective narrative involvement deals with the emotional impact of these other dimensions when they come together in the stream of actions that constitutes game-play. Affective Narrative Involvement is thus more of an indicator of narrative significance of a game event rather than a building block thereof.

### 8. Ludic Narrative Involvement

> The *ludic involvement* dimension explores the players' interaction with the rules of the game and the series of possible choices these afford. These interactions tend to be organized in terms of hierarchies of goals which are either set by the game, established by the player and/or emerge from the player community within or outside of the game-world. [22]

Game rules and goals are great examples of why we need an overhaul of our conceptions of narrative. Models of narrative such as those developed by Genette [3], Chatman [1], Prince [2] and others for non-ergodic media like film and literature did not need to account for the machinic structures that are the heart and soul of games. It is thus obvious that their models did not need to take the affordances of narrative generation rules provide.

With table-top role-playing games, the narrative potential of interaction with the rule-system is clear: if my character takes a run and tries to leap across a 3 metre chasm she needs to make a jump skill roll. If her jump skill is 60% and I roll 92 on my D100 (in a percentile system), the character has missed her jump and, according to the rule-set in question and the house-rules in effect, everyone looking at that die-roll result has an image instantly playing across their mind's eye. My character failed her jump! The interaction with the rules for jumping has instantly created a segment of narrative.

Digital games often hide the majority of the rule-system that animates the game behind streamlined and visually pleasing user interfaces, yet players are aware of the system and interact with it nevertheless. Certain events become narratively significant due to rule-based reasons.

In a game of *Planetside 2*, for example, a small squad of troops is holding out a bridge against an outnumbering force. The defence of that bridge is imbued with particular significance since the middle of the bridge holds an objective point, which controls two bases that allow troops to spawn on either side of the bridge. The significance of the engagement is further heightened when we note that taking the objective would give control of the entire surrounding zone (a hex on the overall continent map) that is needed in order to speed up the capture of a major facility, called a Tech Plant, in the adjacent zone which has been fought over for the last four hours. Keeping that bridge becomes a momentous event in the experiential narrative of the squad involved because of the rule-based repercussions that it's capture has. If it were just another bridge, the engagement might have still constituted a significant narrative event, but the existence of the rules ground that significance in something outside of the individual player's subjectivity and makes the importance of the event shared by others involved, further enhancing its relevance as a powerful narrative event.

Ludic Narrative Involvement is not directly mapped on the list of classic story elements since rules and goals did not make part of the inherent structure of non-ergodic narratives. In games, however, the rules and goal hierarchies are crucial in establishing the story-world's structure of meaning. It may be further argued that game rules do not only influence the emotional charging and thus narrative significance of a game sequence, but also act as generators of narrative themselves.

### 9. Scripted Narrative Involvement

Since this paper is exploring the combination of the narrative involvement dimension with other dimensions of the Player Involvement Model in order to arrive at a framework for experiential narrative, the narrative involvement dimension will here be used to discuss what is missing from the other conjugations of dimensions: the role of the scripted narrative that has been designed into the game.

In the majority of games there is a story which designers want to impart to players. This can range from a very simple introduction to the game world and an explanation of the goals players are meant to pursue, to more complex narrative situations involving multiple characters and plot twists. In many cases players can decide to engage with the entirety of the scripted narrative or focus on the more goal-oriented tasks that push progression forward. In his 2008 Games Developers Conference talk, Levine [18] divides engagement with scripted narrative on three levels:

> We decided to go for three levels of story in Bioshock. The first level is: "what do I need to do? Who do I need to kill? Where do I need to go? Andrew Ryan… who's that? I don't know and don't care. I just know I have to kill that guy". That's the most basic level. And we had to make sure people understood that and we supported that. People who just wanted to come into Bioshock and blow crap up would be able to do that. Then there's the second level of story which is: Oh yeah, I gotta kill this guy Andrew Ryan, he runs this place. And there's this Fontaine guy, he's trouble. And Tenenbaum, she's with these little girls right? There's that level of story that people with some interest can vaguely follow… And we have to support that. Then there's the final level. You know the kids that will listen to music and they will like it and dance to it, and then there's the weird kid in the back of the classroom writing down Nirvana lyrics on his notebook. That's the level of people that get into the game that you have to support. The hardcore fans that we really try to support in Bioshock with all the story-telling methodologies I'll talk about today, to give them that love that they want to get as much detail as possible in the world. [18]

This is not just the case in linear action-adventure games like *Bioshock*, but exists in almost all genres of game environments. In MMOGs, for example, it is common for players to take on quests, or missions, that communicate two things: the ludic goal of the quest and its rewards and the scripted narrative that surrounds the quest. This can be a form of background story of the character giving the quest or a sequence of events, usually expressed as a string of connected quests, or a means to convey information about the surrounding environment and its history. There are players that skim the quest text to work out what they need to do to accomplish the quest; while others engage with the story aspects delivered by the quest. Whatever the level of engagement with scripted narrative, there is always some minimal engagement with the bare bones of the story, even if it is simply a case of learning about a new character and a place that needs to be explored, the quest still conveys some element of the story written into the world. As Levine advises, designers are becoming more careful to ensure that players do not need to engage with the full level of narrative to experience and complete the game, as was the case in earlier adventure games such as *The Secret of Monkey Island*, where if one misses a piece of information it might become difficult (or impossible) to progress in the game.

Aside from the structured progression through the intended story, scripted narrative is also delivered to the player through different channels including: cut-scenes, objects that convey background material on the world, story and characters, quick time events, character dialogues and straightforward streams of verbal text (usually at the beginning of a game) for the players' to read. Further work in this dimension of narrative would describe the variety of channels that can be used to deliver scripted narrative and the structures of progression found in games.

Scott-Card's [24] notion of the 'idea' as one of the four focal points of a narrative comes into play here. Idea is tight strictly to scripted narrative since it encompasses a specific fact or truth that the lead character works towards discovering in the narrative. This is the main emphasis of genres like caper novels or detective fiction. The focalization of the novel is usually tightly bound with the lead character in order to closely align the character's and reader's knowledge of the fact being pursued by the character. Although a number of scripted-narrative heavy games such as *Heavy Rain, Deux Ex* or *Bioshock* emphasize idea, it often lacks the focus or impact that we find in non-ergodic media, since in the case of the latter, this becomes the main source of active engagement for the reader, while in games, there are a whole range of dimensions to engage with. The focus on idea in games, even when executed with class, tends to be therefore diminished.

Scripted narrative tends to effect the formation of experienced narrative quite strongly since it encompasses within it most or all of the elements of story outlined above. Aside from this, as its name implies, scripted narrative has been designed by the game designers and writers as the principal means of telling the story they wish to impart to players. On the other hand, players' interpretation of and relationship with the game's scripted narrative is effected by the experiential narrative that has been generated in between sequences of scripted narrative. To put it in another way, if we follow Ryan's conception of narrative as a cognitive construct, scripted narrative is incorporated into experienced narrative since all forms of narrative are ultimately assembled and interpreted mentally.

## 10. Conclusion

There is an interesting overlap between the combination of narrative with dimensions of the Player Involvement Model and the main constituents of narrative described by narrative theorists [1,12, 24] : world, characters and events correspond closely to spatial narrative involvement, shared narrative involvement and kinaesthetic narrative involvement. On top of these the model adds rules and goals, that are key generators of experiential narrative not found in other media, represented by ludic narrative involvement. It also emphasizes the relationship between affective aspects of the game and their bearing on experiential narrative significance. Finally the narrative involvement dimension, within the scope of this paper, considers the "scripted narrative" in the game, that is, the narrative material that has been written into the game and delivered to the player in discreet chunks.

The Player Involvement Model thus acts as a structuring template upon which to base experiential narrative in games through the application of its dimensions in the context of experiential narrative. In this way we can account for and design specific affordances of narrative generation that are rooted in the properties and affordances of the game. Experiential narrative is thus a perspective we take on a game environment that is infused with the other dimensions of involvement. It is not a definitive feature in the game that we are forced to experience, but an affordance to wear the narrative perspective when interacting with the game's elements.

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