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# A Comparative Study of Interactive and Linear Narratives in Video Games and Films

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***Abstract* - Films and video games are two of the most influential narrative media, yet they organize storytelling on different principles. Film presents a fixed sequence of events controlled by its author, while games share narrative authority between designer and player through interaction. This paper compares linear and interactive storytelling using a framework of six dimensions, namely temporal structure, authorial control, agency, identification, narrative space, and thematic coherence, drawn from narratology, film theory, and game studies. The framework is applied to six works and one hybrid interactive film, and a short computational sketch represents linear, branching, and systemic narratives as sequences, graphs, and state spaces. The results suggest that the two media differ less in their capacity to tell stories than in how narrative meaning is produced, through control of discourse in film and through systemic participation in games. The paper closes with design implications and directions for empirical research.**

***Keywords* - *interactive narrative; linear narrative; video games; film; narratology; player agency***

## I. INTRODUCTION

Every new storytelling medium has changed what it means to be an audience. Cinema gave viewers a carefully ordered stream of images and sound and asked them, essentially, to watch. Video games, which grew into a major entertainment industry from the 1980s onward, changed the arrangement: the audience acts, and what it does helps decide what happens next [1], [2].

That change set off one of the longest arguments in media studies. Some early game scholars held that games are better understood as rule systems than as stories [3]– [5]. Others took a different view: Jenkins [6], for instance, saw designers as architects of narrative space, and Murray later argued that neither side could claim the whole field [7]. The argument has cooled, but the practical question it left behind has not: what actually changes when a story becomes interactive?

This paper takes that question to a comparison between film, the clearest example of a linear narrative medium, and video games, the clearest interactive one. Instead of asking whether games "are" narratives, I ask how the two forms differ in building, delivering, and sustaining narrative meaning. Three questions guide the work. First, how do film and games differ in the way they organize time and structure? Second, how does the sharing of narrative authority among author, system, and audience shape identification and emotional engagement? Third, what tensions and gains appear when story and interaction are combined, and how do hybrid works handle them?

The paper offers three things: a framework that lets narratological and game-studies vocabularies be used side by side, a formal sketch of linear, branching, and systemic structure, and a comparison of seven works along the framework from which a small set of propositions is drawn for later empirical testing.

## II. THEORETICAL BACKGROUND

### *A. Classical Narratology*

Classical narratology separates story, the events themselves, from discourse, the way those events are told [8], [9]. Film does most of its narrating through discourse. Editing, framing, sound, and performance decide what the viewer knows and when. Bordwell [10] describes the viewer as an active builder of the story, working from cues the film supplies, but the cues never change from one screening to the next. The filmmaker controls order, duration, and frequency, the three temporal parameters Genette [9] set out, and that control is what makes flashback, ellipsis, and unreliable narration possible.

### *B. The Ludology-Narratology Debate*

Game studies took shape in the late 1990s partly through this argument. Aarseth [3] introduced the idea of ergodic literature, texts that demand nontrivial effort from the reader, and argued that such texts call for tools that narrative theory does not supply. Frasca [5] proposed "ludology" as the study of games through rules and simulation, and Eskelinen [4] warned that narrative concepts risk obscuring what players actually do. Juul [2] tried to hold both sides together by describing games as "half-real": real rules attached to fictional worlds.

On the other side, Murray [1] had already seen in interactive fiction a new expressive form defined by immersion, agency, and transformation. Jenkins [6] argued that designers build "narrative architectures," stories that are embedded in space, evoked by it, enacted through play, or left to emerge from systems. Ryan [11], [12] worked out a narratology sensitive to medium that could take interactive and virtual forms into account. Later work moved toward integrative accounts that stop treating the two camps as rivals [13], [14].

### *C. Agency and Choice*

Agency is the concept that most clearly separates the two media. Murray [1] defines it as the satisfying power to take meaningful action and see the results of one's decisions. Salen



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and Zimmerman [15] add that play becomes meaningful when the link between action and outcome is both discernible and woven into the larger system. For researchers building interactive narrative systems, the central difficulty is that coherent story progression and user agency tend to pull against each other [16]. Mateas and Stern's interactive drama Façade is a well-known attempt to build a system that answers player input while keeping dramatic shape [17]. Mawhorter et al. [18] propose "choice poetics" as a way to analyse how choices make meaning, shifting attention from what choices lead to toward what it is like to make them.

### D. *Identification and Immersion*

Psychologists have offered a complementary vocabulary. Green and Brock [19] describe transportation, absorption into a story, as a route by which narratives shape beliefs. Cohen [20] separates identification with media characters from other kinds of involvement. Klimmt et al. [21] argue that games differ because players do not simply watch a character; they take on the character's goals and act on them, which produces identification built on shared agency. Calleja [22] uses the term incorporation for the way players come to inhabit game worlds through interaction, and Brown and Cairns [23] found that gamers describe immersion in graded levels.

## III. METHODOLOGY

### A. *Research Design*

We use a qualitative, comparative narratological analysis. The method suits theory building: the aim is to describe structural differences between forms and to draw out propositions that later empirical work can test. No human participants were involved.

### B. *Analytical Framework*

Drawing on the literature above, I defined six dimensions of comparison, labelled D1 to D6 and summarized in Table I.

TABLE I
ANALYTICAL FRAMEWORK

| Dimension | Guiding question | Sources |
|---|---|---|
| D1 Temporal structure | How are order, duration, and frequency of events determined? | [9], [10] |
| D2 Authorial control | Who determines what the audience encounters, and when? | [6], [8] |
| D3 Agency | What can the audience do, and how do actions affect outcomes? | [1], [18] |
| D4 Identification | How is the audience positioned relative to characters? | [20], [21] |
| D5 Narrative space | How are story information and mood conveyed through environment? | [6], [11] |
| D6 Thematic coherence | How well do formal and narrative elements support one meaning? | [2], [24], [25] |

### C. *Corpus and Selection*

The sample is purposive. I looked for works that are widely discussed, that rely on a distinctive narrative strategy, and that allow a fair comparison across media. From film I chose Citizen Kane [26], which reconstructs a life from several perspectives; Rashomon [27], in which witnesses give contradictory accounts of one event; and Memento [28], whose reverse-chronological structure mirrors its protagonist's short-term memory loss. From games I chose BioShock [29], which turns choice and control into themes; The Last of Us [30], a heavily authored, character-driven game; and The Stanley Parable [31], a game about narration and obedience. Black Mirror: Bandersnatch [32], a branching interactive film, serves as the hybrid case.

Each work was examined along D1 to D6. I recorded findings as structured notes and compared them across media. The analysis was conducted collaboratively by the authors, which matters for how the results should be read, as the discussion of limitations explains.

### D. *Limits of the Approach*

A purposive sample cannot support statistical generalization, and interpretive analysis reflects the analyst's reading. I therefore present the results as grounded propositions, not empirical conclusions.

## IV. COMPUTATIONAL REPRESENTATION OF NARRATIVE STRUCTURE

To make the comparison more exact, it helps to describe the three structures in a common formal language. This is a conceptual aid, not an empirical model.

### A. *Linear Narratives as Sequences*

A film is an ordered sequence of events fixed when the work is made. Every viewer follows the same path, so there is exactly one experience to design, and all the authoring effort goes into making that one path as good as it can be.

### B. *Branching Narratives as Directed Graphs*

A branching narrative is better pictured as a directed graph, with story segments as nodes and choices as edges. If branches never rejoin, the number of paths, and the content that has to be written or filmed, can grow exponentially with the number of choice points. As Riedl and Bulitko note, authoring large graphs of this kind quickly becomes intractable [16]. A natural response is to let paths converge again, which limits how far an experience can diverge but keeps production feasible. That trade-off between expressive range and authoring cost sits at the centre of hybrid works such as Bandersnatch.

### C. *Systemic Narratives as State Spaces*

In a systemic game the story is stored neither as a path nor as a graph. It arises from a state space governed by rules, in which player actions change the world and events follow from the simulation. The author specifies rules and constraints, not a sequence. Keeping such a system narratively coherent is the problem that drama management addresses, which Riedl and Bulitko describe as steering the experience through the space of possible world states [16]. Put briefly, the three structures locate authorial control in different places: in the path, in the graph, and in the rules.



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## V. ANALYSIS

### A. Temporal Structure (D1)

Film controls time completely. Citizen Kane nests its flashbacks inside a reporter's investigation, and Memento runs its scenes in reverse so that the viewer is as disoriented as the protagonist. In both films the arrangement of time is the main storytelling device, and it works only because every viewer meets the same sequence.

Games cannot promise a fixed sequence, because the player's actions shape both pacing and, often, order. Designers respond in several ways: gating progress behind conditions, scripting set pieces, and using cutscenes that briefly hand control back to the author. The Last of Us alternates between player-driven traversal and authored cinematic scenes to hold a linear emotional arc together. BioShock leaves backstory in audio diaries that players can find in any order, an example of what Jenkins [6] calls embedded narrative. The contrast suggests a first proposition: in film, time is a rhetorical instrument; in games, it is a resource that designer and player negotiate.

### B. Authorial Control and Agency (D2, D3)

Rashomon is a useful limit case for film. It dramatizes how unreliable testimony can be, yet the audience's role stays interpretive: viewers weigh the accounts but cannot change them. The film's authority is never in doubt, and that is exactly what lets it withhold a final truth so precisely.

In games, authority is shared. The Last of Us branches very little, so the player's agency is mostly local: you choose how to handle an encounter, but not how the story ends. BioShock seems to offer moral choice, since the player can rescue or harvest the Little Sisters, but it delivers only a narrow set of endings, and its central twist reveals the player's apparent freedom as scripted compliance. The Stanley Parable pushes this self-awareness further by staging a contest between a narrator's instructions and the player's ability to disobey.

Mawhorter et al.'s [18] distinction between the experience of a choice and its consequences helps here. Many games work not because choices change the plot much but because they give players a convincing sense of owning what happens. That points to a second proposition: perceived agency matters more to narrative engagement than the depth of branching.

### C. Identification and Immersion (D4)

Film engages through observation and empathy. Point-of-view shots, close-ups, and music steer the viewer's emotional alignment with a character. Games can produce a different kind of identification, one in which the player is responsible for what the character does [21]. In The Last of Us the player carries out the violence that the story later invites them to question, which gives that questioning real weight. Calleja's [22] idea of incorporation helps explain why: players invest attention, skill, and decision-making in the game world until it feels like theirs.

Shared agency carries a risk film never faces. If a player's actions drift away from the character's established personality, identification can break. A film viewer is never asked to do something the protagonist would not do; a player often is.

### D. Narrative Space (D5)

Both media use space expressively, but by different logics. Film builds space through composition and editing and directs attention frame by frame. Games build space that can be navigated, and where the player goes decides what the player sees. The ruined art deco city of Rapture in BioShock shows the collapse of its founding ideology through architecture, signage, and debris, a clear case of what Jenkins [6] calls evoked and environmental storytelling. Self-directed discovery can deepen engagement, though it also means players can miss information.

### E. Thematic Coherence (D6)

Hocking [24] coined "ludonarrative dissonance" for the conflict between what a game's mechanics reward and what its story says, using BioShock as his example: the story criticizes self-interest while the mechanics reward it. Sicart [25] cautions against reading games too procedurally, since meaning also comes from how a game is actually played. I take that caution to suggest that dissonance is best treated as a design risk that depends on how mechanics are read in play, and not as a flaw in every game.

Film has no mechanics to set against its story, so games carry an extra coherence burden: mechanics, story, and aesthetics have to line up, or be deliberately misaligned for effect, as in The Stanley Parable. A third proposition follows: games draw distinctive expressive power from ludonarrative alignment and carry distinctive risk when it fails.

### F. Summary Comparison

Table II summarizes the contrasts across the six dimensions.

TABLE II
SUMMARY COMPARISON OF LINEAR AND INTERACTIVE STORYTELLING

| Dimension | Linear (film) | Interactive (games) |
|---|---|---|
| Temporal structure | Fixed; time as rhetorical device | Variable; time as negotiated resource |
| Authorial control | Centralized | Distributed among designer, system, and player |
| Agency | Interpretive | Operative, with varying consequence |
| Identification | Observational, empathic | Participatory, responsibility based |
| Narrative space | Constructed by framing and editing | Navigated and discovered |
| Thematic coherence | Narrative and formal elements | Narrative, formal, and *mechanical* elements |

## VI. THE HYBRID CASE

Bandersnatch applies film's audiovisual grammar to game-like choice structures. Its subject, a programmer who comes to suspect his choices are being controlled, treats agency as a



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theme in a way that recalls BioShock and The Stanley Parable. Choices turn the viewer from observer into participant, which changes D2 and D3. But the interaction is brief and discrete, with little of the sustained, skill-based engagement that games offer, and the pauses for decisions interrupt the continuous immersion film usually builds. Interactivity and cinematic flow are in tension, and hybrid forms have to manage that tension on purpose.

## VII. DISCUSSION

### *A. Reframing the Debate*

The analysis supports an integrative view. Games can tell stories, but they do so by different means than film. Where film controls discourse, games, to borrow Aarseth's [3] emphasis, need the user's work to produce the text. Each side of the early debate caught something real, and accounts that treat narrative as transmedia, with realizations specific to each medium, leave room for both [12], [14].

### *B. Design Implications*

Three implications follow for designers. First, choose how authority is shared, and do it deliberately; highly authored and highly open experiences can both work, but they call for different tools. Second, treat mechanics as narrative material, because they carry meaning whether or not anyone intends it [2], [33]. Third, if a hybrid work offers interaction, give it a reason within the story, as Bandersnatch tries to do; otherwise, choices feel arbitrary.

### *C. Convergence and New Technology*

The boundary between the media is getting harder to draw. Cinematic games borrow film's visual language, films borrow structures from games, and franchises spread their stories across platforms [34]. Adaptive and generative narrative technology may eventually ease the old tension between player freedom and narrative coherence [16], though what that means for authorship is still unsettled.

## VIII. LIMITATIONS AND FUTURE RESEARCH

This study has limits. The corpus is small and made up mostly of Western and Japanese commercial works, so the findings may not carry over to independent, mobile, or nonnarrative games. The analysis is interpretive and done by one coder, and the propositions concern audience experience that I did not test with audiences. Future work could apply the framework to a larger and more culturally varied corpus, use several coders and report their agreement, and test the propositions experimentally, for instance by comparing transportation [19] and identification [20], [21] across matched linear and interactive versions of one story. It could also ask how adaptive systems driven by artificial intelligence (AI) change who holds narrative authority.

## IX. CONCLUSION

We compared linear and interactive storytelling through a six-dimension framework, applying it to films, games, and one hybrid work. The main finding is that the two media differ less in their capacity to tell stories than in how narrative meaning gets made: film through exact control of discourse, games through shared authority, participation, and the alignment of mechanics with story. Three propositions came out of the analysis. Time is a rhetorical instrument in film and a negotiated resource in games. Perceived agency matters more than branching depth. And games gain, and risk, something distinctive in how well their mechanics and their stories agree. Neither form is the better storyteller. Each has its own strengths, and seeing them side by side helps scholars read games and films more clearly and helps designers choose between them.

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