

The Aesthetics of Narrative Elements in Interactive Films

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Received: 2016/12/25

Accepted: 2017/10/11

Abstract

Films are generally more attractive than other forms of TV shows. Such attractiveness can be enhanced through steerable plots where audiences act not merely as passive spectators, rather as active participants. The production of an interactive film requires a narrative structure based on which, a plot can be written and expanded. This paper attempts to investigate and propose a new engaging narrative structural model that can be used in TV shows. Moreover, the new model can bring about cost-effectiveness for producers and filmmakers, while enabling the audience to actively create a narrative, switching from one narrative line to another. A successful medium outlet in this competitive arena tends to attract a wider range of audience, leaving a far greater impact on them. This is in contrast to ordinary films entailing only one theme and effect. Dubbed as interactive narrative, the newly proposed model can both influence every narrative line and the viewer, which was called a hyper-structure impact in this paper. The final section will explore the experience of producing an interactive short film based on the newly pro-posed model .

Keywords: Interactive Film; Interactive TV Shows; Interactive Narrative; Interactive Structure

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1. Introduction

The quest for discovering new attractions in the visual media is considered a cultural necessity, setting the ground for new, vital and effective developments in film and television production. Films are generally more attractive than other forms of TV shows. Such attractiveness can be enhanced through steerable plots where the audiences act not merely as passive spectators, but rather as active participants.

The majority of studies have focused on hyper-narrative and digital interactive narrative (Douglas, 2001; Koenitz, 2010). There are even examples of interactive stories produced. With regard to interactive films (Ben-Shaul, 2008; Bordwell, 2002; Verdugo *et al.*, 2011) previous studies have mostly explored the production of computer-based interactive drama (Arinbjarnaret *al.*, 2009; Szilaset *al.*, 2003; Szilaset *al.*, 2012; Szilas, 2002; Szilas, 2003) and interactions resulting from convergence with computers.

This paper outlines its approach to interactive filmmaking. The main objective is to propose a new model for interactive filmmaking, enabling the audience to participant as a core component of narrative action and narrative navigator through steerable plots. The typical strategy, in interactive narratives, is to create a branching story. Film producers believe that such a

complex story would be extremely expensive. Hence, what modifications should be made in the structure of a film to enable users to cross the plotlines within a narrative? How can interactive films be modeled to be easily written and produced, while allowing the user to interact? To answer these questions, it is essential to analyze the aesthetics of interactive narrative, so as to gain an insight into the features of each component within an interactive narrative. At the next stage, this paper will review the interactive structures proposed so far in this regard. Dubbed as interactive narrative, the new narrative model will then be discussed in terms of characteristics and strengths against other structural models. Furthermore, this paper will elaborate on the hyper-structure impact, explaining how it can be directly correlated with the capability to create different stories through the newly proposed structure.

2. Aesthetics Features of Interactive Narrative

Prior to analyzing the aesthetic aspects of interactive narrative, it is essential to discuss the transition from classical narrative to interactive narrative, which story elements evolve and which remain unchanged. In this light, an interactive narrative model can be obtained to engage the audience as the core component in the narrative action.

2.1 Transition from Classical Narrative to Interactive Narrative

Owing to its nested stories combined with interaction, an interactive narrative can to a great extent enhance the charm of the story and hook the audience. As the viewer travels from one thread to another, however, it is crucial to retain the features of interaction points and their relevance to the subplots, the sequence of events, resolution and causal relationships. If realized, this can prevent the audience from confusion and instead enhance the attractiveness of the narrative and further audience engagement.

Vladimir Propp (1968) argued that function as the structural unit of a narrative, i.e. the action of a character regarding its importance in the storyline, using it as a title representing that action.

Propp split the narrative structure into a number of moves each entailing one event line with its own resolution. One move can follow or hinder another. In fact, it is all about a complex, nested narrative (Ohadi, 2012). Accordingly, Propp attributed various functions to a given character. Propp's approach provides an insight into how the narrative backbone has developed, where the nuts and bolts have been fitted, what the possible and impossible events are, and in what direction the whole system progresses (Khadish, 2013).

Similarly, Barthes (1975) believed that a narrative describes one state to another. He proposed three major levels for the narrative structure:

1. Functions (as defined by Propp and Bremond)
2. Actions (referring to characters).
3. Narrative (discourse, *sjuzhet*).

Barthes argued there is an organic link between the three levels, together constructing the entire narrative.

What follows in exploring the elements of an interactive narrative mainly revolves around the first level, i.e. function driving the narrative forward. In principle, function refers to a *seed* planted within the narrative, growing an element which will later come to fruition, whether in the same level or elsewhere (Pezeshk, 1998). In this scenario, functions form what Barthes called "sequences". These sequences begin and end with kernels, which are functions implicitly referring to each other (Martin, 1986).

Functions are divided into two categories:

1. Cardinal Functions: Interestingly, Chatman (1980) chose to call them nuclei functions (*Kernels*: Todorov's translation of Tomashevsky's term for kernel is *motif associe*, and for satellite *motif libre* (Todorov, 1966) and Barthes's translation of kernel is *noyau* (Chatman, 1980).), which are the actual turning points of

every narrative; they are the moments of risk (when events can move on in any direction); they occur sequentially and lead to consequences.

2. Catalysis Functions: These functions lie between the cardinal functions of a narrative. Called parasitic and unilateral by Barthes (1975), they are spots to relax. For example, a ringing phone or mail delivery can be two cardinal functions in the story. Picking up the phone or opening the envelope can strike up a whole turning point in the story, while all the other things play an intermediary role, avoiding an action.

Relying on the transformations applied to the story, screenwriters or narrators shift and mold the events as they wish. There should primarily be a temporal link (motivation) as well as a causal link between the sequences of events (resolution) (Aqa'eeMeybodi, 2013). The reordering transformations are widely common in narratives, where the events occurring globally in a particular sequence (a-b-c-d-e) are reordered in verbally in a different sequence (e-b-a-c-d) (Toolan, 2012).

2.2 . Aesthetics of Interactive Narrative Elements

Interactive narrative is composed of two components of kernel and sequence (satellite), where the moment of

interaction lies in the former. The next section will elaborate on these components and their characteristics.

2.2.1.Kernels

Discussed in Classical Narrative earlier, Barthes's cardinal functions constitute the nuclei, leading to the moments of interaction with the narrative. The nuclei moments in a narrative, initiate, end or promote the uncertainty. Therefore, the kernel events are major elements building on the narrative. On the other hand, the satellite events amplify the outline of a sequence by retarding or prolonging the kernel events. Satellite events either accompany or surround the kernel events (Ohadi, 2012).

At each stage of the storyline, there are other possibilities playing an essential role in creating suspense. A character may evade or embrace harm, seek revenge or forgive and so on. The kernels are narrative moments evoking complexities in the course of events. In terms of structure, they appear as nodes, i.e. branching points pushing forward a movement toward one of the two (or even more) possible paths.

The script would house more events when it is composed coherently entailing more diversity and solidarity. What an artist does is all about creating a form/structure, which in turn involves

nothing but creating a richer melting pot of possibilities. The duty assigned to “richer possibilities” should be create a freedom, right to choose as a natural human need. In fact, it is a positive response to a will to freedom entrusted to humans (ShafieeKadkani, 2012).

Characteristics of *Kernels*:

- Cognitively, the interactors are engrossed by the dramatic succession, compelled and allowed to intervene. According to the Curiosity Hypothesis, the interactors want to (and will have to) put an end as soon as possible to the intervention and modify the course of events, rather than waiting for what would happen next (Ben-Shaul, 2008).
- The interactors have the right to intervene only in the characters’ actions, particularly those altering the course of the narrative.
- Interactions in turning points and “what if” or “if only” suggestions are the best dramatic turning points. In this light, the interactors can be provided with the opportunity to travel from one narrative thread to another at those turning points (Ben-Shaul, 2008).

2.2.2. Sequences

Discussed in the classical narrative, the catalyst functions are called sequences by Barthes. Such sequences are initiated and terminated by nuclei, depicted structurally as an axis lying between two nodes or

nuclei. Each sequence can fundamentally alter the hero. Sometimes a person is thought to be known quite well, but as soon as a different color is revealed, the whole idea is shaken and the character needs to be intertwined within the storyline all over again.

The nuclei cannot be removed without destroying the narrative logic, while the catalyst event is not so decisive and can be eliminated without disrupting the logic behind a plot (Chatman, 1980). The elimination of the catalyst events, however, weakens the aesthetic aspects of a narrative. The catalyst events lead to no choices, but merely involve the consequences of each choice in the nuclei. They represent the nuclei, but the opposite is not true. They serve to fill in, expand and complete the nuclei, and actually act as skin covering the skeleton. Greimas (Ahmadi, 2015) called the three sequences “three grammatical rules” including:

- Executive, which depends on arrangement of tasks, specific roles, actions and so on.
- Treaty, which directs the story towards a goal, such as the will to do or refuse something.
- Singularity, which covers changes and moves.

Characteristics of Sequences:

- The interactor does not demand intervention and will not be allowed to intervene (in terms of narrative, it arises

from the expectation hypothesis leading or referring to the dramatic sensitive points) (Ben-Shaul, 2008; Bordwell, 2002).

- The interactor demands intervention, but will not be allowed to do so (in narrative term, it arises from the harmful consequences from previous intervention leaving reverse consequences. This can disappoint the interactor because of being prohibited from behavioral intervention, which ultimately leads to the suspenseful *wait and see*) (Ben-Shaul, 2008; Bordwell, 2002).
- When the major situations and decisions are about to occur or be adopted, interactive engagement will be harmful for the interactor's mind.

3. Interactive Models: Branching Narrative and Detour Narrative

This section explores two narrative schema adopted in storytelling of interactive films: Branching narrative (see Fig. 1) and Detour narrative (see Fig. 2). Screenwriting through branching narratives can pose obstacles along the way: The main story evolves so intensively that no longer sounds fascinating in aesthetic terms. Alternatively, the script grows so intensively that no longer serves as a single chunk but rather as a series of distinct chunks that starts identically and ends quite differently. It is not cost-

effective to adapt such narratives to a film by producing several films simultaneously (Verdugo *et al.*, 2011).

What is the solution to achieving a model that allows different systematic narratives whose branches do not grow drastically?

The structure of a detour narrative comprises a few interaction points limited only to the main narrative (backbone) line branching only once, thus eliminating any treelike growth. Meanwhile, there are no interactions in the detour points of the main structure. In this model, there is a pile of joint events (main narrative line) that - no matter what story is narrated - remain unchanged and is always viewed by the interactors. It inevitably bounces back to the main narrative line.

4. Newly Proposed Structure: Interactive Film with an Interactive Narrative

In the "Garden of Forking Paths", Jorge Luis Borges (Chatman, 1980) stated that in all stories, when a person faces several choices, one has to be chosen at the expense of others. As a result, there will be various futures and times. These times initiate other times, which in turn branch into other times and split out (Chatman, 1980).

The parallel universes are created by selecting different actions arising from the narrative structure. These actions generate

a variety of universes (mandatory, aspirational, conditional, hypothetical, and false, etc.).

Given the difficulties in each of the mentioned structures, the advantages of all models can be preserved to design a unique structure.

The newly proposed structure (see Fig. 3) is a hybrid of parallel and intersecting structures. Effort was made to eliminate the drawbacks of the previous structure and provide a rather interactive version dubbed "Int"

The new model entails a parallel structure due to limitation of narrative threads inspired by the theory of *parallel universes*. According to the theory of parallel universes, every universe is created by a different choice in a character's life. Therefore, the film beings inevitably with identical openings, where the first interaction leads to three stories narrated with different endings.

Three narrations in the first interaction with a different story and different endings appeared. Through the intersecting structure, the kernels and sequences add the interaction to the structure. Then, the three parallel narratives intersect and link together through the nuclei and sequences.

Meanwhile, the interactors can, via interaction, switch between the three storylines, traveling toward a narrative in another pile, while maintaining the cause and effect relationships. In the base of narrative structure entails seven interaction points, directing the film with a three-branch interaction at three points and a two-branch interaction at four points. The lines between the kernels are suggestive of different paths to be taken.

Because of the differences between the events constructing each narrative pile and reliance on the interaction among three narrative piles, there are several versions of one narrative developing through various events. At the end, a total of 57 narratives can be extracted from the new narrative structure. The constituent elements of each separate account have been specified in capital letters and listed in the table below.

4.1 Characteristics of an Interactive Narrative Model

1. Interactive filmmakers and producers employing the interactive narrative model can enhance their production rate at lower costs and efforts thanks to the new narratives generated by the new structure. As produced segments, sequences and kernels can amplify when they are embedded within the structure. According to the table above, there are a total of 57 narratives constructed. This is

approximately 25 times greater than the film production period.

2. An interactive film produced through the newly proposed model can leave the greatest impact on the audience. Another feature of this model as a composition of content and structure is that the main theme of the narrative is created after the viewer's multiple readings of the structure, not to mention that the theme and influence of the script at the closing line are an outcome of 57 narratives.

For instance, if an event is about to happen in a character's life, that will happen in any order. What matters most is the character's next choice and action following the event and how the problems are dealt with. The effect is understood when its fundamental structure is understood in addition to the plotline. This feature has been called "Hyper-Structure Impact" in this paper. By viewing one narrative line of this structure, the audience would realize not merely the theme, but also the overall content through multiple readings. The hyper-structure impact refers to the implicit perception of the audience about several narrative lines.

3. The interactive structure can be entertaining and informative to the audience owing to the multiplicity and diversity of interaction points and reversibility to the previous interaction points where the choices can be modified.

4. This structure provides the opportunity to switch between the narrative threads while maintaining the causal relationships between the narrative piles.

5. The main components of this structure are kernel and sequence.

6. This structure can be adopted to produce long interactive series films and long interactive feature films through amplification of the structural components.

5. Experience of Producing an Interactive Film Through Interactive Narrative

Based on the newly proposed structure, an interactive film titled "The Day's Morning, Not to Die in its Night, We Could!" was produced in December 2014. The film served to further explore and put into practice the newly proposed model, while promoting it in academic terms.

5.1 A Few Facts about Interactive Screenwriting

Screenwriting of an interactive film can identify points in interactive narratives threatening the coherence, dramatic sequence and closing of a story. In an effort to turn these threats into opportunities following Bordwell's analysis in "Film Futures" (Bordwell, 2002), the following points were suggested:

The interactive narratives are:

1. Recommended to be written based on a single hero so as to preserve the cause and effect relationships.
2. The interactor is supposed to continuously encounter an initiator, which should be a compulsory opening in the film.
3. The time limits imposed on the hero in a narrative can serve as a motivational factor for the audience to interact.
4. The nuclei are locations at which all the narratives arrive.
5. In order to avoid any confusion in the interactors, all the narrative threads meeting the nuclei are arranged in a series of common events splitting away as soon as the next choice needs to be made.
6. In each segment of the sequential narrative thread, the audience is encouraged to interact with the story by revealing one personality trait or secret of the hero.
7. When providing several options to engage the audience, the nuclei should consider every possible scenario; otherwise, the audience would think the screenwriter attempted to deceive.

6. Conclusion

As a conclusion it's an approach to interactive filmmaking. The main object was to propose a new model for interactive filmmaking, enabling the audience to participant as a core component of

narrative action and narrative navigator through the Steerable plots. I proposed interactive structure of interactive film based on the classic and dramatic structures.

The paper identified the elements of interactive narrative and described characteristics of them. Through the study I analyzed the structures of interactive narrative and newly proposed structure identifying characteristics of an interactive narrative model. Finally I have described own experience of producing an interactive film with my model and interactive screenwriting. In the future study could be included the aesthetics of interactive narrative elements in order to identify principles of interactive screenwriting which led the writers to produce the creative and attractive screenwriting. It is obvious that this model can engage the audience and give enjoyment.

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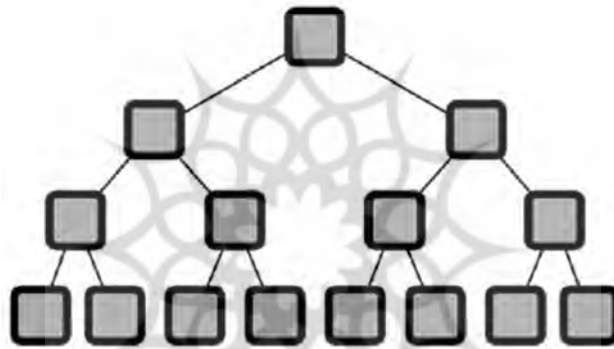


Fig.1 Branching Narrative

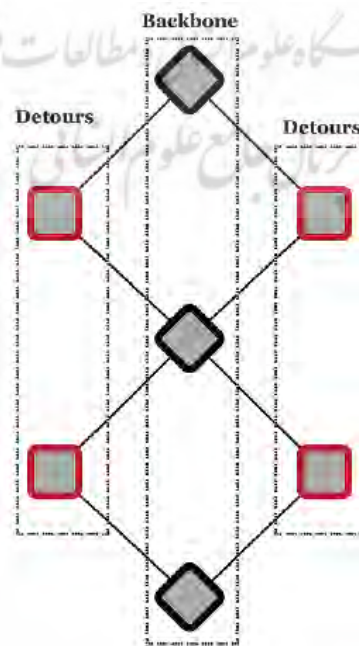


Fig. 2. Detour Narrative

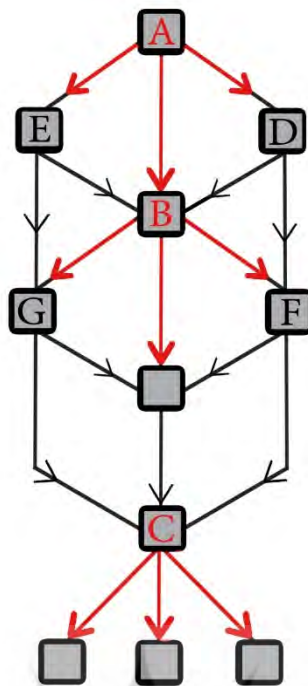


Fig 1. The interactive narrative includes seven interaction points, three-branch interaction at three points: A, B, C and a two-branch interaction at four points: D, E, F, & G.

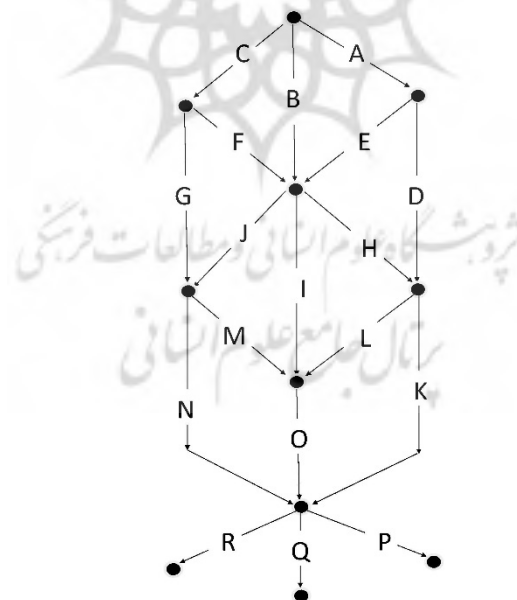


Fig.2 Interactive Narrative

Table 1 Various narratives within the interactive model

مسیرهای احتمالی

ADKP	ADLOP	AEHKP	AEHLOP	AEIOP	AEJMOP	AEJNP
ADKQ	ADLOQ	AEHKQ	AEHLOQ	AEIOQ	AEJMOQ	AEJNQ
ADKR	ADLOR	AEHKR	AEHLOR	AEIOR	AEJMOR	AEJNR
BHKP	BHLOP	BIOP	BJMOP	BJNP		
BHKQ	BHLOQ	BIOQ	BJMOQ	BJNQ		
BHKR	BHLOR	BIOR	BJMOR	BJNR		
CGMOP	CGNP	CFHKP	CFHLOP	CFIOP	CFJMOP	CFJNP
CGMOQ	CGNQ	CFHKQ	CFHLOQ	CFIOQ	CFJMOQ	CFJNQ
CGMOR	CGNR	CFHKR	CFHLOR	CFIOR	CFJMOR	CFJNR



زیبایی‌شناسی عناصر روایی در فیلم‌های تعاملی

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تاریخ پذیرش: ۱۳۹۶/۷/۲۰

تاریخ دریافت: ۱۳۹۵/۱۰/۶

چکیده

فیلم‌ها نسبت به دیگر برنامه‌های نمایشی جذابیت خاصی دارند که می‌توان این جذابیت را افزایش داد از طریق پیرنگ‌های قابل هدایت که مخاطبان در آنها نه تماشاگر منفعل، بلکه مشارکت‌کننده‌ای فعال باشند. برای تولید فیلم تعاملی احتیاج به یک ساختار و مدل روایت است تا پیرنگ براساس آن نوشته و جلو برود. هدف این مقاله، بررسی و ارائه ساختار و مدل روایتی است که بتواند در برنامه‌های نمایشی به کار رود و تولید فیلم براساس این ساختار برای کارگردان‌ها و تهیه‌کننده‌ها مقرون به‌صرفه باشد، به مخاطب امکان دهد در عین خلق روایت، در تغییر پیرنگ مشارکت فعال داشته و بتواند بین خط روایت‌ها تغییر مسیر دهد. علاوه بر آن در رقابت بین رسانه‌ها برد با رسانه‌ای است که مخاطب بیشتری جذب کند و تأثیر بیشتری بر مخاطب بگذارد برخلاف فیلم‌های معمولی که فقط یک تم و اثر دارند و فقط یک نتیجه از آن دریافت می‌شود. می‌توان از طریق مدل پیشنهادی (روایت تعاملی) علاوه بر تأثیر هر خط روایت، تأثیر دیگری بر مخاطب گذارد که ما نام آن را تأثیر فراساختاری گذاشتیم و در انتها به بررسی نکات حاصل از تجربه تولید فیلم کوتاه تعاملی براساس مدل پیشنهاد شده می‌پردازیم.

واژه‌های کلیدی: فیلم تعاملی، برنامه‌های نمایشی تعاملی، روایت تعاملی، ساختار تعاملی

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