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INTERACTIVE TRANSMEDIA vs. VORONOI DIAGRAM EXPRESSIONS

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ABSTRACT

Combining the concepts of classic narrative and transmedia, we will show, as Jenkins argues, that Digital Technology and non-linear narratives can be represented through the Voronoi Diagram. Starting from this premise, we will present the transmedia product prototype *The Portal* – prepared for interactive tv – questioning whether it retains transmedia narrative characteristics and geometric computational representationally.

INTRODUCTION

The present moment of media's change can be defined by the overlapping of diversified layers and by the interconnectivity of the media, contrasting with the previous model which supposes that new media would replace old media (Jenkins, 2011).

Transmedia narrative asserts itself in a paradigm characterized by the convergence of mass media and digital media properties. It operates in a media ecosystem in which the digital has preponderance, determining the form, production, diffusion and reception of cultural products. This led Manovich (2001) to defend the computer as metamedia with unique properties, allowing it to represent the contents in accordance with a new logic. Previous media struggled against bi-directional communication, and fostering the sharing of emotional space; while digital media offers individual access to interactive media, promoting and sharing cognitive space (Manovich, 2001).

Jenkins (2006) condemns the 1990's criticism that prophesied old media extinction. This was based on a prejudice which classified old media as passive, in opposition to the interactivity of new media. Some authors argued that the digital age would kill mass culture instead of transforming it. Jenkins (2006) rejects the mediation of the old media's condemnation by new media. He proposes the concepts of media and cultural convergence underlining the cooperation paradigm of the new media ecosystem.

The specific convergence of some media is emphasized. The cultural convergence between television and computer focuses on the (linear and non-linear) narrative issue, as it prefigures a reorganization and reconfiguration of television narrative into new logical functional terms. It is the proposed articulation between television and the computer that allowed to personalize the television (Parks, 2003).

Television has proved to be a particularly fertile medium in the field of media convergence analysis. It has been adapting itself to new configurations that befit the new media ecosystem. The latter is characterized by convergence, translated into addition of interactive and collaborative properties in their models of representation.

Simultaneously, as proposed by Jenkins, and concerning circulation concerns, television is one of the central medium in terms of contents convergence and transmedia narratives. This lets us guessing what may the near future be, concerning this medium and what role it will play in the new digital technologies paradigm.

DOUBLE CONVERGENCES

Transmediation is one of the most visible facets of convergence. It applies its properties to narrative construction beyond intertextuality or remediation, establishing a dialogue at textual level. Convergence institutes a culture of dialogue between meanings, incorporating form, content, production, consumption, life and media.

The concept of transmedia narrative is operationalized in the universe of media convergence. It is understood as a flow of contents crossing different and multiple platforms in the field of cultural industries. It also operates in the context of audience's migratory behavior, wishing to be in almost everywhere having all kind of entertainment experiences (Jenkins, 2006).

Cultural convergence is defined top down (business decisions) and bottom up (decisions and choices made by users, usually teenagers). It mirrors the conglomerates of cultural industries' desire to expand in the different media, and it mirrors the consumers' desire to have the contents of the media they want, when they want it and in the format they want (Jenkins, 2006).

This content expansion and circulation is operationalized by the active participation of the consumers (Jenkins, 2006). At the same time, it represents the digital technological transformation of a new cultural consumption logic: spectators became participants (Jenkins, 2006).

In association with digital technology, convergence of media and, even more, convergence of cultural contents, can also be operationalized by digital technology applications. However, it takes place in the consumer's brain: each individual

constructs his/her own mythology from the bits, and fragments, of information they then process (Jenkins, 2006). In the digital age, the collective intelligence power (Lévy, 2007) is opposed to the mass media power.

TRANSMEDIA NARRATIVE

The ecosystem

In 2003, Jenkins presented the term transmedia narrative developing it in 2006. Up till then, from 1980 to 1990, the concepts and thinkers did not agree. In 1991, Marsha Kinder had already introduced the transmediation notion; in 1997, Janet Murray backed the term hyperserial to express fragmented narrative structures in a multiplicity of media; in 2001, Peter Hill used, also in the same sense, the term superfiction. Multiple authors analysis' revealed that transmedia narratives have specific properties and patterns, that manifest themselves in operationalization strategies' (Jenkins, 2006; Askwith and Gray, 2008; Dena, 2009; Smith, 2009; Ruppel, 2012).

Transmedia narrative represents a process in which elements of a fiction are scattered, systematically, across platforms with the purpose of creating an entertainment unified experience (Jenkins, 2007). Our lives are built around stories we tell each other. These stories represent our understanding of the world, of the people with whom we interact. When we connect what we learn with each of these episodic narratives, there are life lessons that guide how we should behave and live within our far-reaching society. Today's digital technology allows us to share incredible visual and interactive experiences. However, no transmedia narrative can work without a guiding script informing all the related creative decisions that shape every aspect of storytelling: characters, context, story worlds, the protagonist's journey – as already postulated by traditional narrative regarding the hero's journey (Campbell, 1949). All these elements are commanded by the narrative and, in turn, influence what kind of platform is going to be chosen by different audiences, i.e., what kind of technologies will be used.

The transmedia's narrative beauty has been able to create an ecosystem fully developed by the narrative itself. Once in flow, it is its users that look for, and find, different experiences between them, in different platforms. Access can be made through different entrance doors, that is, each medium being an access door, chosen by the operator and in accordance with each individual ease towards the media being used.

From spectator to participant

Transmedia storytelling is based on fictional worlds that support multiple and interrelated characters and story arches (developed by users), encouraging an encyclopedic impulse both in creator and user. That is, transmedia narrative works constantly expanding, independently or beyond our own will, because it summons the user as participant or co-creator (Jenkins, 2007). Consequently, it is different from traditional narrative (linear and closed) that, in the end, allows the grasp of a story's total meaning (Jenkins, 2007) and condemns the individual (user) to a spectator's passivity.

In opposition, transmedia narrative triggers and enlarges its content through all or to one of the following functions: backstory, story worlds map, other characters' perspectives, increased audience involvement, user summoning to participation in narrative construction; thus the passive viewer becomes an active participant (Jenkins, 2011).

This storytelling participative characteristic leads many authors to argue that interactivity is transmedia core.

By interactivity it is meant the vast territory of different relationships fans can establish within a transmedia narrative. This can happen through different ways: gathering information to try to grasp the meaning of the story; to try to reach a game level, overcoming obstacles or different fans' performances (from fan fiction to cosplay). All these possibilities, not present in traditional linear narrative, appear in transmedia narrative because it summons the user to participate, being less dependent on the producers' content design choices (Jenkins, 2011).

This underlies the difference between continuity and multiplicity. Transmedia demands a high degree of creative coordination and control to ensure that all story pieces are coherent, and consistent, within the world(s) of each co-created narrative (Jenkins, 2011).

From adaptation to expansion

Transmedia narrative has its roots in film and television. It retains the seriality of contents. It creates a story over time in a process of chunking and dispersal (breaking and dividing the story by several interconnected media). These processes are operationalized by creating cliffhangers, in order to motivate the user to return back to the story.

In traditional linear narrative seriality occurs within the same text; in transmedia narrative it happens at each story arch (Jenkins, 2011), hence it is fundamental to distinguish adaptation from expansion.

Theory of Adaptation is based on the interchangeability of a text and its conservation in new forms (O'Donnell, 2000). Adaptation is also considered typical at the initial stages of digital media because they had not yet found a proper aesthetic language (Holtzman, 1998). Therefore remediation is referred to as an apparent adaptation: a medium is incorporated and represented in another medium (Bolter & Grusin, 2000), sustaining that not all adaptation is necessarily remediation (Hutcheon, 2006).

Theory of Adaption arose from the relation cinema/ literature (Woolf, 2008) and progressed within two axis, opposing fidelity and intertextuality (Stam, 2005). This approach summons Kristeva's (1974) and Genette's (1982) intertextuality concepts, together with the dialogism concept (Bakhtin, 2006). Jenkins argues that switching a text to a new medium is a mere recodification, transmedia narrative presupposes text's expansion (Jekins, 2011). In conclusion, adaptation takes the story from one medium and reproduces it in another; expansion adds something new to the existing story when moving it from one medium to another.

Expansion summons the additive comprehension (coined by Neil Young), every degree each text achieves in our understanding of the story (Jenkins, 2011).

Anatomy of transmedia narrative

Transmedia narrative presupposes the representation of a fragmented and modular narrative, that can be extended by multiple platforms, regulated by continuity among the different compositions. I.e., the same narrative expands through a plurality of media limited only by (traditional) narrative criteria. For additive comprehension each story arch (that each participant inaugurates in each different media) has unique narrative elements. Based on reconfiguration processes operated by new media, the transmedia narrative maintains criteria of cohesion and canon, not abandoning the diegetic coherence. What distinguishes it from the traditional narrative is the fact that it is not linear and uses the classes of modularity, navigability and database. It is up to the participant (no longer a spectator) to decide when he accesses each composition, identical to what already happened with hypertext, gaming or virtual reality.

Whether traditional or transmedia narrative is always maintained by a model of causality existing in every human communication act, in the way we represent, interpret, and understand the world around us. Morphological narrative models, identified by Aristotle (2008) as organic, emphasize the plot and dramatic unity; the diegetic pact; verisimilitude and a law of totality supported by the causality principle. In the so-called classical theatrical cycle, linear traditional narrative was established in a dramatic crescendo represented by Euclidean Geometry (Figure: 1). From an incident (Field, 2005), causality operated a dramaturgical progression divided into three acts, conducive to a climax and to the result or resolution (story closed end), the audience being of spectators and not participants.
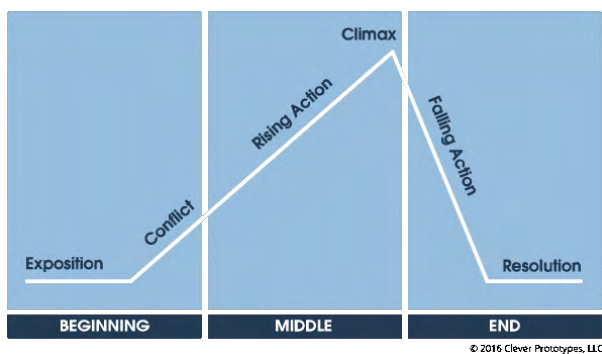

Figure 1: Euclidean dramatic narrative

The fundamentals of nonlinear narratology persisted somewhat unchanged in the new digital media and convergence paradigm.

The new systems break with linearity, forcing it to reconfigure the very concept of narrative. Umberto Eco (1993) highlighted the uncertainty of the communicational process, interpretation and decoding underlying any text. I.e., anchored in semiotics, Eco states that author, text and reader are discursive strategies, so the reader assumes the role of cooperator in the construction of the meaning of the text.

Released from the author's tyranny, and the narrative linearity due to the concepts of hypertext (Kristeva, 1974) and of palimpsest (Genette, 1982), the narrative is open to the Rhizome's idea (Deleuze and Guattari, 1987).

Rhizome is a botanical term designating a class of stems, representing a structure unfettered by hierarchies (Figure: 2). Applied to classic narrative, it represents the hypertextual model. Nuclear elements of the narrative can be accessed in any order, and it's association is freed from the author's organizational models.

Figure 2: Rizoma's representation

Born with the digital age, media convergence and postmodernity (Lyotard, 1975), transmedia narratives are characterized by not using the usual narratological features, combining game, with linear and multi-linear.

The participants elevate the transmedia narratives to an unspecified zone. It escapes the linear causality of closed end; presents itself in an area of nomadism that appears to survive in apparent chaos. Jenkins considers this chaos only apparent, because it resembles the computational geometry represented by the Voronoi diagram (Figure: 3) - the seed sites, or seeds, personifying the participants in transmedia narratives.
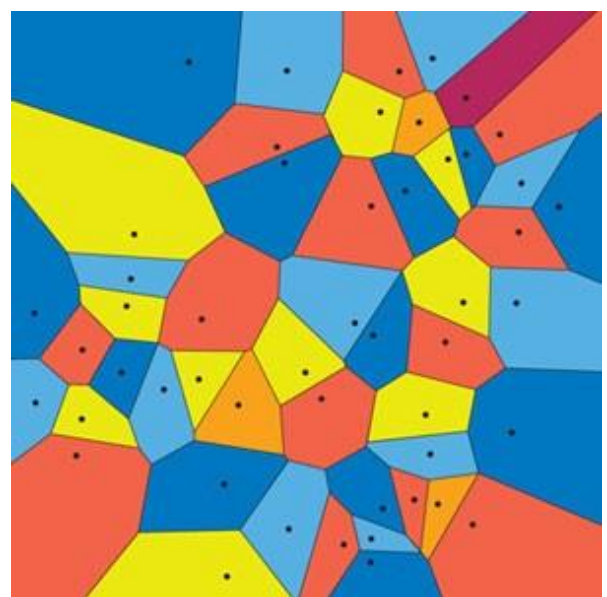

Figure 3: Voronoi's diagram of a random set of points in the plane (all points are contained in the image)

Similar to the spots in the Voronoi diagram, each participant is equidistant from the global narrative. Each participant is co-creator of the story he shares. Participative dispersion is so apparent as the ones in the patterns of nature that the Voronoi diagram represents (Figures: 4-6).

Figure 4: Dry earth (Voronoi diagram)
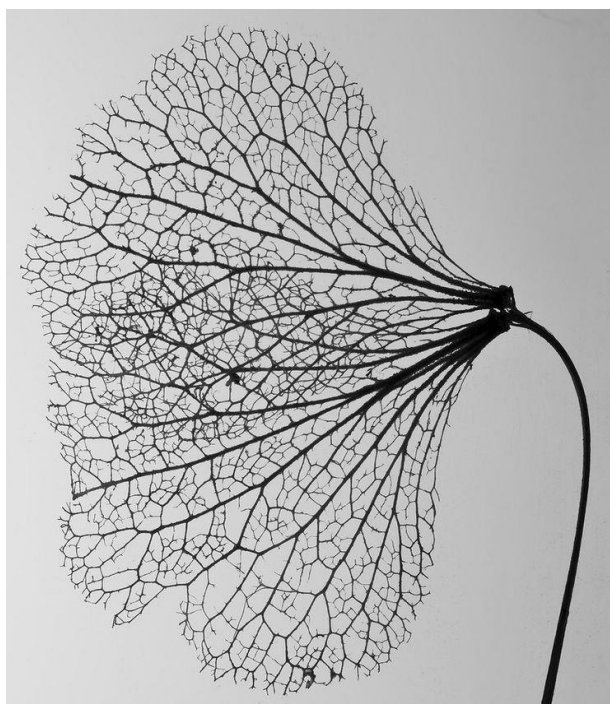

Figure 5: Tortoise shell (Voronoi diagram)

Figure 6: Hydrangea leaf (Voronoi diagram)

Instead of individual participation producing disharmony, it leads to beauty and pure art. In this Benjamin's aura concept (Benjamin, 2006) is recognized as lost in the age of technical reproducibility.

Paradoxically, the era of digital technology gives back to narrative its place as art, replicating Nature's Big Narrative structures (Lyotard 1975), representing a technological artistic form that could emulate a tree (Figure: 7).
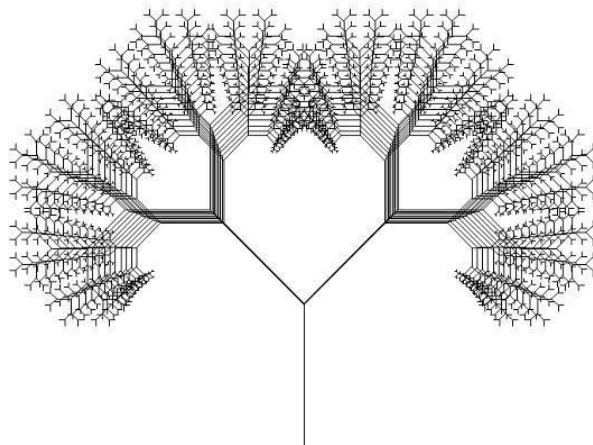

Figure 7: Tree structure for transmedia narrative

Where transmedia narrative meets game

Digital media created an ecosystem that shows the convergence and ubiquity interweaved into narrative.

Murray (1997) argues that the reader becomes a player; in digital narrative, the reader makes decisions with and as the author. The digital media author has new modes for telling stories. Jull (2004) adds that the time of the story (time of the speech) has been replaced by the time of the play (time of the events). Jenkins (2004) prefers to keep a more narrativist approach arguing that many games narrate, but not all of the games do so. Though he recognizes that game brings back to transmedia narrative an important factor: the thrill of winning, the fight not to lose, that underlie game logic. Transmedia narrative takes over from the game universe an important postulation: immersion.

Transmedia as a four-level narrative

Transmedia storytelling is based on four narration levels: the first one - «*here is the story*» - belongs to any medium of transmission; the second: «*what am I hearing*» is the audience's engagement with the raconteur via the social media of transmission; the third: «*this is my world and be welcome*» is when/where the audience can participate; the fourth: «*take the world*» the audience takes on the story world and begins to create fan fiction, as story ambassador.

According to Jenkins (2007) transmedia narratives have the following characteristics: a) they abandon traditional stories' linear structure and place themselves in the non-linear; b) the viewer abandons his passive role becoming a participant, and

being co-author of story archs developed from the story worlds resultant from the main story; c) the story archs are constructs of each participant that, at each moment, can choose the narrative's entrance door.

Transmedia crosses several of the old media (consider *Matrix* analyzed by Jenkins in: comics, television, movies, games, online social networks, and forums formats. What characterizes transmedia is that it proposes a tale no longer to be heard, but instead invites to an assault of its world, and to building a never-ending story.

PORTAL – TRANSMEDIA NARRATIVE
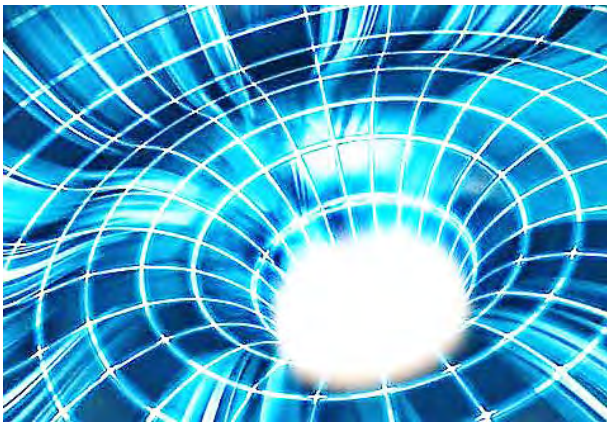**© Helena Barbas & Vanda de Sousa**

Figure 8: Portal

Portal is a 12 episode (10 minutes each) of a multi-stream project for an interactive TV transmedia narrative with a dedicated website. Each episode obeys to a specific line of action in some circumstances unknown to the characters themselves.

The goal of the project was to find a new format of narrative fiction, proposing a different way for consuming new audiovisual formats that included on-line games motivation, and crossing over from linear to non-linear narrative.

Each episode has a full action cicle. All the characters are protagonists inaugurating each episode with a new proposal. The plot progresses simultaneously and in accordance with each character space, breaking the canon of the classical line. In the dramatic intrigues, each conflict offers three entrance doors: Yes-No-Maybe.
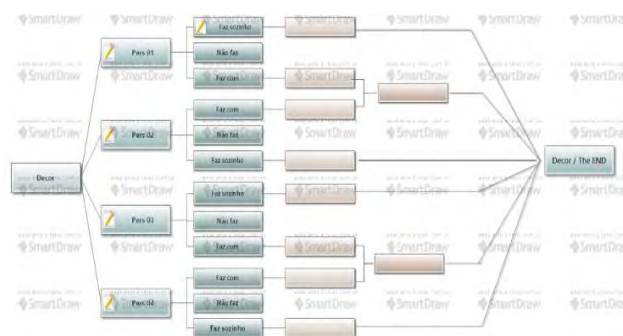

Figure 9: Portal plot structure

The previous structure can be reproduced with other diverse contents. In the present case, the storyline intended to recreate the reality show format. The story inspiration came from Voltaire's *Candide, ou L'Optimisme*, and Dr. Pangloss (teacher of metaphysico-theologo-cosmolonigology) motto and leitmotiv: « *...there is no effect without a cause; and, that in this best of all possible worlds...*».

The characters inhabit a technological world, and the chances are ruled by the watchful eye of two geeks (N and M) who govern the odds via Social Media Networks through their mobile phones.

Figure 10: Portal - Social media networks

The other two characters (J and C) are confronted with a spiral of disagreements that dramatically distances them and drives them against each other.

The power of the password will allow them to live jealously or happily ever after, until the next episode.

CONCLUSION

The Portal prototype was elaborated from empirical experience, by tentative and error, trying to solve each of the problems that were arising in April 2016. A posteriori, it was confronted with Jenkins theorization about digital technology and non-linear narratives, enriched with the Voronoi Diagram representation.

As an interactive tv script and transmedia narrative, the Portal project proved to have all the charateristics which are in demand, as well as geometric computational representation of the aforementioned.

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