

THE INTERACTIVE DOCUMENTARY AS A LIVING DOCUMENTARY

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Resumo: Os documentários interativos são narrativas digitais não lineares que usam os novos meios para se relacionarem e descreverem a realidade. Uma vez que esta forma de narrativa factual apenas se estabeleceu nos últimos dez anos (identificamos a sua emergência através da evolução da Web 2.0), podemos dizer que ela está ainda no seu estágio embrionário. Em consequência, é flagrante a falta de terminologia e compreensão das especificidades desta forma. Este artigo pretende posicionar os documentários interativos como uma forma em si (e não como uma continuidade dos documentários não lineares) e introduz a noção de “Documentário Vivo”, pela qual os documentários interativos são vistos como “formas vivas”. A partir da noção de “autopoiesis” de Maturana e Varela e da teoria de agenciamento de Deleuze, a definição de “Documentário Vivo” pretende colocar a ênfase na natureza relacional do documentário interativo e na sua capacidade de gerar mudança.

Palavras-chave: documentário interativo, narrativa factual digital, narrativa não-linear, novos meios, documentário.

Resumen: Los documentales interactivos son narraciones digitales no lineales que utilizan los nuevos medios para relacionar y describir la realidad. Dado que esta forma de narración factual sólo se ha consolidado en los últimos diez años (su emergencia puede rastrearse a través de la evolución de la Web 2.0), podemos afirmar que se encuentra todavía en su infancia. En consecuencia, es flagrante la ausencia de terminología y comprensión de las características específicas de dicha forma. Este artículo pretende situar los documentales interactivos como una forma en sí misma (y no como una continuación de los documentales lineales). Introduce asimismo el concepto de “Documental Vivo”, en el cual los documentales interactivos son encarados como “formas vivas”. Partiendo de la noción de “autopoiesis” de Maturana y Varela, así como de la teoría del ensamblaje de Deleuze, la definición de “Documental Vivo” quiere hacer hincapié en el carácter relacional de los documentales interactivos y en su capacidad para generar cambios.

Palabras clave: documentales interactivos, narración digital factual, narración no lineal, nuevos medios, documental.

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Abstract: Interactive documentaries are digital non-linear narratives that use new media to relate and describe reality. Since this form of factual narrative has only established itself in the last ten years (we can track its emergence through the evolution of Web 2.0), we can say that it is still in its infancy. As a result, a lack of terminology and understanding of the specificities of the form is flagrant. This article aims at positioning interactive documentaries as a form of itself (and not as a continuation of linear documentaries). It also introduces the notion of “Living Documentary”, where interactive documentaries are seen as a “living forms”. Drawing on Maturana and Varela’s notion of “autopoiesis” and Deleuze’s assemblage theory the definition of “Living Documentary” wants to put the emphasis on the relational nature of interactive documentaries and on their capacity to engender change.

Keywords: interactive documentary, digital factual narrative, non-linear narrative, new media, documentary.

Résumé: Les documentaires interactifs sont des narrations numériques non linéaires qui se servent des nouveaux médias pour décrire et restituer la réalité. Étant donné que cette forme de récit factuel est apparue il y a peu, dans les dix dernières années – il est d’ailleurs possible de suivre son développement en observant l’évolution du Web 2.0 –, nous pouvons dire qu’il en est encore à ses balbutiements. C’est pourquoi, un manque de précision terminologique et de compréhension de ses particularités se fait encore sentir. Le but de cet article est de démontrer que les documentaires interactifs constituent une forme d’expression en eux-mêmes et non pas un simple prolongement des documentaires linéaires. Il introduit également la notion de “Living Documentary”, dans laquelle les documentaires interactifs sont considérés comme une “forme de vie”. S’appuyant sur la notion de “autopoiesis” de Maturana et Varela, ainsi que sur la théorie de l’assemblage de Deleuze, la notion de “Living Documentary” veut mettre l’accent sur la nature relationnelle des documentaires interactifs et leur capacité d’engendrer du changement.

Mots-clés: documentaire interactif, récit factuel numérique, narration non-linéaire, nouveaux médias, documentaire

Although interactive documentaries have existed since the 1980’s the explosion of the Web in the last five years, coupled with Web 2.0’s social and participative nature, has dramatically increased the number and the variety of documentary artefacts. My research started from the observation that no clear terminology is currently available for the variety of interactive documentaries styles that have recently emerged. Terminologies such as new media documentaries (Castells, 2010), webdocs (Guillermé, 2010);

France 5 television,¹ 2011) docu-games (Whitelaw, 2002; Raessens, 2006) cross-platform documentaries (Bulkley, 2010; Bell, 2010) and interactive documentaries (Goodnow, 2004; Galloway *et al.*, 2007; Choi, 2009) are all mixed up without clear understanding of their differences. The lack of precise terminology is reflected, even more importantly, in a lack of clear conceptualisation able to gather, and do justice, to the complex and ground-breaking nature of the new aesthetic tools that are emerging in interactive documentary.

There is now a critical mass of examples to trace the various emerging forms of interactive documentaries. This allowed me, in my PhD (Gaudenzi, 2013), to establish four modes of interactive documentaries: the hypertext, the conversational, the participatory and the experiential mode². This classification is clearly not the only way to differentiate families of interactive documentaries, but behind such taxonomy lies a different understanding of what interactivity might mean when applied to interactive documentaries. This new approach, and its consequences, will be the focus of this article.

The interactive documentary as a new digital form

When we speak of a film/video based linear documentary we have the tools to analyse it. Linear documentaries are time-based artefacts. Typically they are composed of 24 images, or frames, per second that follow each other in sequential order. Each image can be analysed as a

1) France 5 television has a part of its website totally dedicated to what they call “le webdocumentaire”, or “webdocs”. See <http://www.france5.fr/portraits-d-un-nouveau-monde/#/accueil/>

2) See <http://eprints.gold.ac.uk/7997/>

specific form, with its characteristics of framing, composition, salience and information value (Kress, G. and van Leeuwen, T., 1996:183). A group of those images, when played by a projector, can then be analysed in terms of shot framing, cinematography, editing, special effects, sound, genre and narrative style. Classic books on film language offer precise guidance on how to analyse a documentary from a film language point of view – see in particular Brodshaw and Thompson (2004), Grant and Wharton (2005), Nelmes (2003) and Arijon (1976).

But it is argued in this article that the interactive documentary is not the extension of linear documentary into digital media, it is “something else”. Its digital nature implies modularity - the fact that it is created by independent objects linked to each other where each file is accessible and independent from the others (Manovich, 2001:31) and it also implies variability – the fact that “a new media object is not something fixed once for all, but something that can exist in different, potentially infinite versions” (Manovich, 2001:36). Its variability also means that the interactive documentary can change and evolve, allowing collaborative creations that were not possible with film and video. Its interactivity makes it a connected and dynamic object where “spatial montage” (Manovich, 2001:322) – the juxtaposition of images on the screen - may replace “temporal montage” (Manovich, 2001:322) – the sequential order of film images – or even create new types of narratives.

This article proposes a methodology of analysis that looks at interactive documentaries as relational objects, artefacts that link technologies and subjects and that create themselves through such interaction. My hypothesis is that an artefact that is relational in its core essence cannot be studied as a finite form but needs to be addressed through the complex series of relations that form it, and that it forms. In what follows I thus will clarify the concepts of “relational entity”,

“autopoiesis”, “feed-back”, “structural coupling” and “assemblage”. Those concepts will be crucial in defining the interactive documentary as a Living Documentary.

The interactive documentary as a relational entity

As media critic Lev Manovich has pointed out in *The language of newmedia*, digital objects have their own, new characteristics. “In old media elements are “hardwired” into a unique structure and no longer maintain their separate identity, in hypermedia elements and structure are separate from each other” (Manovich, 2001:41) which means that an interactive documentary can be composed of visual frames but also by other data and algorithms which can potentially create infinite forms. Depending on the way data and algorithms are matched, the documentary can take shapes that are more or less branching, evolutive or collaborative. The form of the interactive documentary is much more fluid, layered and changeable than that of the linear documentary. The cut is replaced by the hyperlink which immediately splits one form into multiple possible forms. The cut, that allowed the creation of meaning by establishing a fixed chain of events, is now an opening to possibilities where the intentionality of the author is replaced by a dialogue between the user and the possibilities that the interactive documentary system offers. Therefore the interactive documentary cannot be analysed as a single form composed by frames; in interactive media there are new variables: code, interfaces, algorithms and an active user. Those variables are connected in such a way that each influences each other. If a line of code changes, the interface might change so that the choices of the user might be affected and his actions on the interactive documentary too. The interactive documentary is therefore a

fluid form, not a fixed one. It is the result of interconnections that are dynamic, real time and adaptative. An interactive documentary as an independent and stand-alone artefact does not exist. It is always related to heterogeneous components.

If one wanted to analyse the interactive documentary as a form of digital artefact, one could turn to Human Computer Interaction (HCI) theory. But I argue that the interactive documentary should not be confined to the simple human-machine interaction process - where the user acts and the computer reacts, creating a series of on/off loops that leads to the fulfilment of the user's goal. In their book *Human computer interaction*, Dix *et al.* state that "the human user uses the computer as a tool to perform, simplify or support a task". (2004:124). The idea that the user, in HCI, is "in control" of the output of the machine is clearly explained in Jensen's in-depth analysis of the historical meanings of the terms "interactivity" and "interaction". "A characteristic of the informatics concept of 'interaction'," says Jensen, "is the central placement of the concept of 'control'." (1999:168). In HCI the user is to pursue an aim (writing a text, retouching a photographic image, buying a ticket online) and the author/designer of the software is to maximise the efficiency of the program (by minimizing the time it takes the user to accomplish the pursued task). But, as eloquently defended by Harrison, Tar and Sengers in *The three paradigms of HCI* (2007), this vision of interactivity reaches its limits when interactive media becomes mobile, encourages a more embodied form of interaction and values "entertainment", or "satisfaction", rather than "efficiency". As interactive documentaries fall in the educational, or entertainment, category it would be difficult to measure their quality with quantitative methods. And if we look at the user as "being part of" the artefact, rather than "in control of" it, then a more systemic understanding of interaction is needed.

Interaction, in this article, will be considered the ensemble of transformations that occur to the artefact's components as a result of the human-machine inter-action. Such transformation can affect heterogeneous components: the database (database expansion through user generated content), the interface (for example random juxtaposition of images through algorithmic linking that creates new screens) or even the perception of space of the user (mobile content can change the perception of space by adding layers of content about a specific location). Interactivity is seen as native, as constitutive of the digital artefact. The user is not "observing" the digital artefact, not "controlling" it, but "being transformed" by it. This vision of interactivity is inspired by Second Order Cybernetics' notions of second order observer, positive feed-back loop and structural coupling – notions that will be explained next. Maturana and Varela's definition of "autopoiesis" (1987:47), as the process of auto-creation that characterizes living organisms, will also be seen next as it allows us to understand interactivity as an open process rather than as a closed loop.

Cybernetics: feed-back loops, autopoiesis and structural coupling

It might seem unusual to use Cybernetic theories such as feed-back, autopoiesis and structural coupling to analyse cultural artefacts, but they can be particularly useful – especially as the history of computers and of Cybernetics are closely linked. Cybernetic theory developed in the 1940's in the context of the World War II. Mathematician Norbert Wiener had been working on an information system called an "anti-aircraft predictor", an automatic firing machine that had to calculate the shift of trajectory of a plane so that the gun could automatically readjust its

position and hit the aircraft target. This process was only possible using a feedback mechanism: a radar had to record the path of the airplane, a machine had to calculate “the probabilities of its future course based on its past behaviour and convey this information to a servomechanism that would correct the firing of the gun”. (Holmes, 2007:2). In order to work this feedback loop had to be circular and start again and again, constantly recalculating the distance between the trajectory of the gun and the moving plane. Trying to reduce the distance between the target and the trajectory of the gun is what Wiener later called a “negative feed-back loop”.³ (1956: 252). Implicit in the anti-aircraft predictor was the notion of feed-back being possible only if linked to a goal: to hit the target. As explained in their article *The three paradigms of HCI* (Harrison, Sengers and Tatar, 2007) this idea of Human-Machine Interaction as control with a goal has influenced the initial logic of Human-Computer Interaction (HCI) when the first computer became available.

The word cybernetics (from Greek *kybernetes*, or “steersman”) was popularised by Norbert Wiener in 1947 in this context: a post-war situation where machines were for the first time able to perform goal oriented patterns and self-regulating themselves. It is not surprising that at about the same time, more precisely in July 1945, Vannevar Bush

3) Later the notion of *positive feedback* was also developed. Contrary to the negative feedback loop that would tend to stabilize a system the positive feedback would normally deregulate a system and push it to a new state, or to destruction. In positive feedback an increase in the deviation produces further increases. For example, more people infected with the cold virus will lead to more viruses being spread in the air by sneezing, which will in turn lead to more infections. Producing both novelty and instability they can generate runaway growth or collapse unless stabilized anew with more inclusive negative feedback. When that happens, positive feedback conduces to modifying the goals of a given system. This is why the process of positive feedback loops can also be seen as a necessary condition for change, as the instability that demands a new equilibrium. This is the reading of the term that I will retain in my writing. For me positive feedback loops will be synonymous to change and adaptability, and not necessarily to destruction.

published his famous article, “As we may think”, in the Atlantic Monthly. This article has been later considered the precursor of the hyperlink and information retrieval. Vannevar Bush was working on the Memex⁴, a sort of mechanized private file and library in the shape of a desk. Later, inspired by the Memex, a young radar technician, Doug Engelbart, began to work on what would result in the invention of “the mouse, the word processor, the hyperlink, and concepts of new media for which these groundbreaking inventions were merely enabling technologies”. (Montfort and Wardrip-Fruin, 2003:35). Cybernetics and computers have a common history.

An interesting parallel can also be drawn between the evolution of the role of the observer in Cybernetics and in documentary praxis. Up till the 1950’s cyberneticians had generally assumed that the observer was outside of the system being observed. The scientist is assumed to observe what is happening in front of him, in a reality that is external to him. This approach has later been referred to as “first-wave” cybernetics (Hayles, 1999), or “first-order” cybernetics (Heylighen and Joslyn, 2001). Here a system is studied as if it was a passive, objectively given “thing” that can be freely observed, manipulated, and taken apart. In the 1960’s a clear shift of thinking emerged, largely thanks to the work of Gregory Bateson and Margaret Mead. Cybernetics started to question its own methodology, and the role and way of functioning of its own subjects (the scientists).

It is interesting to note that the role of the observer has been crucial in both scientific and cultural realm during the 20th century. In the 1960’s art also embraces this fluid view of connectiveness between author, artefact and audience. Umberto Eco has eloquently described in *The open*

4) In his article Bush describes the Memex as “a device in which an individual stores all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility. It is an enlarged intimate supplement to his memory” (1945:12).

work (first published in 1962) how “openness” and choice have been the leitmotif of the 20th century and how in the 1950’s and 1960’s authors in all artistic disciplines (music, literature and visual art) have voluntarily searched for a maximum openness. “In fact, rather than submit to the ‘openness’ as an inescapable element of artistic interpretation he (the author) subsumes it into a positive aspect of his production, recasting the work so as to expose it to the maximum possible ‘opening’.” (Eco, 1989:5). Openness is only possible if the author allows the participator to enter in the creative process. This logic of creation is a participatory logic rather than a representational one.

For technology historian Andrew Pickering, cybernetics was at the core of a “new scientific paradigm” (2002:413). Science, he says, was passing from a *representational idiom* to a *performative idiom* where its role was not anymore to represent the world and produce knowledge of it, but rather to “do things in the world- with the emergent interplay of human and material agency” (2002:414).

One can see a similar paradigm shift in documentary praxis. The Cinéma Vérité of the 1960’s (or “participatory documentary” for Nichols, 2001:116) and the subsequent “performative documentaries” (Nichols, 2001:130) critique objectivity and are rather interested in “what it is like for the filmmaker to be in a given situation and how the situation alters as a result”. (Nichols, 2001:116). The filmmaker is influencing the reality he documents in the similar way in which the scientist is part of the reality observed. So, in a certain way, what becomes crucial is a theory of the observer.

On a speech delivered to a scientific audience,⁵ cybernetic philosopher Heinz Von Foerster observed that “a description (of the universe) implies one who describes (observes it)” and added “what we need now is the description of the ‘describer’ or, in other words, we need a theory of the observer” (1982: 258). The observer and the observed system started to be seen as linked but also inseparable since the result of observations would depend on their interactions. The observer too became a cybernetic system, who is trying to construct a model of another cybernetic system. This circularity is typical of what has been called in the 1970’s Second Order, or Second Wave, Cybernetic - where cognitive processes are seen as constructing a reality via the interaction subject/environment. The world is seen as an active creation of our cognitive processes and this is why we cannot be neutral when observing it. As Von Foerster points out in “Observing systems”: “the environment contains no information. The environment is as it is” (1960:254). The environment is not given anymore, it is constructed by us.

Second Order Cybernetic theory starts from a fundamental revelation, a shift in thinking, that some have called a scientific paradigm change:⁶ the world can be seen as series of interconnected systems in constant relation to each other. We, as living cognitive organisms, are systems ourselves. When we observe the world we are observers observing systems that are in relation with us, and therefore our act of observation influences the system while at the same time the system influences us. This circularity, which is based on the fact that there is a mutual feedback

5) The speech was delivered in September 1972 at the *Centre Royaumont pour une Science de l’Homme*, in France. An adaptation of the speech got then published in 1982 in Von Foerster’s book *Observing systems* under the title “Notes to an Epistemology for living things”.

6) See Andrew Pickering’s *Cybernetics and the mangle* (2002).

loop acting between any subject and his environment,⁷ will prove to be a useful tool in this discussion. It is in this context that the definition of Chilean biologists Maturana and Varela of the living organism as a relational entity make sense: “living beings” claimed Maturana and Varela “are characterized by their autopoietic organization” (1987:47) where autopoiesis⁸ is the process of self-making, or of auto-creation, and organization is “the set of relations that must exist for the components of a system for it to be a member of a specific class” (1987:47). In other words any living organism materially self-constructs itself and by doing so distinguishes itself from its environment and acquires autonomy. Autonomy does not mean that the system does not need other systems to reproduce itself, nor that it can survive alone, but that “it can specify its own rules, what is proper to it” (1987:48).

7) As noted by Katherine Hayles in *How we became Posthuman: Virtual bodies in Cybernetics, Literature and Informatics* (1999), First Wave Cybernetic (that started around 1940s) was more concerned with the study of feed-back loops internal to an observed system. It is only in the 1960's that the shift to include the observer in the observed system happened. The world is an active creation of our cognitive processes and this is why we cannot be neutral when observing it.

8) The original definition is slightly more complex: ‘An autopoietic machine is a machine organized (defined as a unity) as a network of processes of production (transformation and destruction) of components which: (i) through their interactions and transformations continuously regenerate and realize the network of processes (relations) that produced them; and (ii) constitute it (the machine) as a concrete unity in space in which they (the components) exist by specifying the topological domain of its realization as such a network.’ (Maturana and Varela, 1980:78). The example that Maturana and Varela give of an autopoietic system is the biological cell. The cell is made of various biochemical components and is organized into bounded structures such as the cell nucleus, various organelles, a cell membrane and cytoskeleton. These structures, based on an external flow of molecules and energy, *produce* the components which, in turn, continue to maintain the organized bounded structure that gives rise to these components. Maturana and Varela also contrast the autopoietic system with the allopoietic system, such as a car factory. In car factory raw materials are used to generate a car (an organized structure), but a car is something *other* than a factory, so it is a system that generates something else than itself.

Abstracting “life” from the usual characteristics of “birth”, “death” and “mode of reproduction” was perceived as liberating and revolutionary in a cultural context of the late 1970’s/1980’s. This explains why autopoiesis was rapidly extrapolated from the biological context and used in philosophy (Deleuze, Guattari), social sciences (Luhmann), psychology (Bruner) and cognitive science (Thompson, Rosch, Clark and Noe).

But autopoiesis also comes with a specific reading of the notion of interactivity. In *Autopoiesis and Cognition*, Maturana and Varela put particular emphasis on the concept of interaction. “It is the circularity of its organization that makes a living system a *unit of interactions*, and it is this circularity that it must maintain in order to remain a living system and to retain its identity thorough different *interactions*” (1980, my italics). If we step from simple to complex organisms, and we see humans as autopoietic entities with self-making, self-organizing and adaptive capacities, we suddenly see how key the circular relation with our environment (structural coupling⁹) becomes - since it is this relation that shapes us in our becoming. *Inter-activity* is therefore seen as our fundamental way of being, our way of *relating* and *existing* through *doing*. If we extend this logic to interactive artefacts, such as interactive documentaries, then our interacting with them is a way to relate, and construct, our world. Also, if life is defined as self-organisation, adaptativity and change through interaction, then the interactive documentary can be seen as a living entity.

9) Structural coupling happens “whenever there is a history of recurrent interactions leading to the structural congruence between two, or more, systems” (Maturana and Varela, 1987:75). In simpler words, with structural coupling Maturana and Varela want to describe the mutual structural changes that various autopoietic unities encounter while interacting with each other and with the environment in a recurrent way. Their example of the shoe is quite fitting: the feet can be heart by the shoe but it will also shape the shoe. The “recurrent interaction” between the two will bond them in a structural coupling where they are both shapers and shaped.

A relational entity that affords the construction of realities

Cybernetic concepts of circularity, feedback loops and interaction have a cultural context. They are indicative of the cultural shifts of the 20th century, of the spirit of its times, of its zeitgeist. As seen earlier, the cybernetic shift of the role of the observer is parallel, and probably mutually influencing/ed, by the crisis of the author in literature, or of the artist in visual arts. Much has been said in the last one hundred years about the authorship of works of art, from Walter Benjamin (“The work of Art in the age of mechanical reproduction”, 1936) to Roland Barthes (“The Death of the Author”, 1967) and Umberto Eco (*Opera aperta*, 1989). The tendency of opening up the relationship author/subject/viewer has not escaped the moving image (Gene’s Youngblood *Expanded cinema*, 1970; Beryl Korot and Phyllis Gershuny’s *Radical software*, 1970-1974) and has passed through a redefinition of the filmmaker from an objective observer to an engaged actor in the Cinéma Vérité of the 1960’s. As a result the documentary maker has become more of a performer, someone who acts out onto the reality that he portrays and where, as film critic Anne Jerslev states, it is “logically impossible to regard any documentary as a straightforward representation of an a priori given reality” (2005:107).

But when passing from analogue to digital media, the debate on the role of the author/observer/filmmaker goes one step further. The interaction afforded by digital media has blurred the distinction between author and user/viewer/reader/player. It is as an example of the changes that technology/technique can bring to our notion of creativity and narrative that the interactive documentary is interesting. We can see how the interactive documentary changes the status of the narrative: it is no longer the author who owns the narrative of the event, of the encounter, of its expression and the consequential experience by the user. In

interactive documentary, the ownership of the production of the narration is communal: it belongs to all, author, user, environment, infinite possible transformations, all the causations it provokes – in a word: it belongs to the complex series of relations the interactive documentary is formed of.

In this new context, the user is acquiring more agency than in linear documentaries (he can act on the artefact) but he has little control of the result of his actions (those will depend on the options given by the author, by the serendipity of other users' contributions and sometimes by events which are external to the artefact itself). Effectively, while interacting with the artefact, the user constructs his understanding of it through a series of action/reaction loops. At each steps he evaluates the result of his actions on the artefact. But, since the artefact has now changed, he now has to re-establish his position in it, and through it. The user constantly affects the reality portrayed by the interactive documentary; it is through such interaction that he positions himself, and it is through such positioning that he builds his understanding of reality.

The current cultural studies debates around body and affect (Blackman, 2008; Brennan, 2004; Clough, 2008; DeLanda, 1992; Massumi, 2002; Lash, 2006; Latour, 2002, 2004; Parisi, 2004) put the emphasis on our pre-conscious connectedness with the world around us. In our context of interest, this means that we cannot know with certainty how an interactive documentary will affect a user. There might be different levels of change and these will depend on the subjects and on variables that are only partially under our control. But on the other hand, if we see the user and the digital artefact as being part of the same system, then each single change affects both of them. If users get used to engage in documentary narrative by sending videos and collaborating in interactive documentaries, they effectively act on the final shape of the documentary, but also on themselves. When they visualise the effect

of their collaboration on the artefact, i.e. a new video being added to a website, they also become part of such collaborative effort. They become part of a community: those who have expressed themselves on a precise topic.

In some interactive participatory documentaries, that specifically use a mosaic aesthetic, such as *6 Billion others*¹⁰ and *Womanity*,¹¹ it is clearly the totality of the present points of view that illustrate the commonalities of human beings (for *6 Billion others*), or of women (for *Womanity*) as no single interview would be enough to cover such overwhelming topics. This type of approach to interactive documentaries highlights the constructivist idea that there are as many realities as there are perceiving individuals and that there is no single “truth”. It is multiple points of view of women defining themselves that creates the concept of *Womanity*, and it is the ensemble of interviews in *6 Billion others* that portrays our human condition throughout the globe. These interactive documentaries illustrate a world that is formed by a variety of points of view and where the user “makes sense” of the website by actively choosing content and then creating his own point of view out of a multitude of stories.

A new species: the Living Documentary

Since the interactive documentary has not one, but multiple, potential forms I argue that a different approach is needed when analysing it. The term interactive documentary puts the emphasis on digital technologies and on linear documentary. Merging those two terms, as

10) Available from: <http://www.6milliardsdautres.org>

11) Available from: <http://www.womanity.co.uk/Default.aspx>

we have seen, has its limitations as it comes with a historical baggage. I propose instead to use the term *Living Documentary*, covering the same field, but primarily from a relational point of view.

The word “living” is chosen because it relates to the idea of “being alive” (as in autopoiesis), but also because “live” can mean “happening in real time” - a characteristic of interactivity. The word “live” also means “connectivity” – in the sense of a “live terminal” or a “live cable”, where the parts are connected by electricity - an invisible flow. Finally, as a verb, “to live” means “to reside or dwell” in a place¹², putting the emphasis on our actions, and being, as situated in a place and time - another concept related to interactivity that will be analysed further in chapter four.

To look at interactive documentaries as Living Documentaries we need to accept three hypothesis:

1. Living Documentaries can be considered “assemblages”¹³ (Deleuze and Guattari, 1975:145). Assemblages are forged by, and forge, relations with other assemblages. This allows us to explore which types of relations are dominant, constitutive and visible in interactive documentaries.
2. In Living Documentaries we will use a systemic understanding

12) Available from: <http://dictionary.reference.com/browse/live>

13) The theory of assemblages considers that entities on all scales (from sub-individual to transnational) are best analysed through their components (themselves assemblages). The relationship between an assemblage and its components is complex and non-linear: assemblages are formed and affected by heterogeneous populations of lower-level assemblages, but may also act back upon these components, imposing restraints or adaptations in them. More precisely, I refer here to Deleuze and Guattari's notion of ‘agencement’ as described in *Kafka: pour une Littérature mineure* (1975) where a stokehold is seen as both a ‘collectif d'énonciation’ (1975:145) and an ‘agencement machinique de désir’ (ibidem). Deleuze and Guattari describe a stokehold as a man-machine that includes, and defines, the man that puts coal into it. Their relation is forged inside a cultural and affective context that defines them both, and links them.

of interaction, such as the one proposed by Maturana and Varela - where positive and negative feed-back loops create a circular and transformative relation between a living entity and its environment.

3. Since Living Documentaries are in structural coupling with their environment, they can be seen as autopoietic open systems¹⁴ (systems that can change themselves, and to a certain degree, can create themselves).

A Living Documentary is therefore an assemblage composed by heterogeneous elements that are linked through modalities of interaction. It can have different levels of autopoiesis and can be more or less open to transformation.

What Living Documentaries allow us to do is to look at interactive documentaries as dynamic entities that co-emerge while they live through the interactions with the Internet, their users, subject, producers, or any acting entity. They put the emphasis on *becoming*, rather than explaining. They liberate the user from the responsibility of control, and put him in a position of *inter-actor*. In the same way that parents are only partially in control of their children's lives and actions, producers not in a position to know precisely how their Living Documentary will evolve. This obviously poses complex ethic issues, but it is nevertheless fundamental to stop looking at interactive documentaries as closed objects with a beginning, maybe a few middles, and a clear ending. The message is not in the form, it is in the interaction.

Interactive documentaries are not linear narratives. They become interesting when we build them in such a way that they can have a life of their own. They acquire a bigger potential to provoke change when they

14) The concept of "open system" was first introduced by biologist Bertalanffy in his book *General system theory* (1969:39).

embrace some levels of serendipity. Our life becomes interesting when we face the unknown: this is when we have to work out personal ways to cope and adapt to it. If we were to follow the same path every day we would stop learning, and we would lose our “aliveness” as our interaction with reality would stop being dynamic.

The Living Documentary is an attempt to look at interactive documentaries differently. A Living Documentary does not belong to anyone; not to its author nor to its user. By taking it out of the strict notion of authorial narrative and user HCI control, we can start to see its potential: it visualizes, in virtual space, the inter-dependent nature of our being. The feed-back loop mechanisms (action/reaction) present in a Living Documentary are a simplified visualisation of our constant systemic interaction with the world. The user is actively *affecting* the reality of the interactive documentaries while browsing it, but he *is* also *affected* by it... and the result is dynamic change, world construction, and life.

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