THE INTERACTIVE MULTIMEDIA DOCUMENTARY

A PROPOSED ANALYSIS MODEL

CHAPTER 1: INTRODUCTION

1.1 Defining the scope of this study

The purpose of this research is to study the process of convergence between two apparently seemingly very different areas of communication, namely the evolution of the **documentary genre** on one hand, and the emergence of **digital media** and their rapid expansion in various fields in recent decades, on the other.

While the history of the documentary begins half a century before that of the digital medium, the two processes have progressed towards to a very interesting point of convergence at the present time, and are reaching the concept of "technological singularity"[1]. The two genres have come together in a medium, the Internet, with infrastructure and technologies that enable greater accessibility than ever experienced, in terms of information and content, speed of navigation, high technical performance and interaction between different users.[2]. This has all led to the

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[1]Technological singularity is a theory that predicts that there will come a point in the near future when computers will be able to design other computers better than humans can. The theory states that we will reach a point at which we will lose control and the ability to understand how these new computers and complex systems develop. This is called "singularity" as an analogy to the singularity that physicists study. Within these singularities, the known laws of physics cease to be valid - such as the singularity inside black holes and the origin of the Big Bang - and it is impossible to engage in any speculation or prediction about what will happen afterwards. It is unknown territory. It is easier to understand the concept and what it entails by reading *The singularity is near*, by Raymond Kurzweil (2005). Further information is available online at: http://www.singularidadtecnologica.com/2009_02_01_archive.html.

[2]Manuel Castells, in *The Age of Information* (1997 and 1998) and *The Internet Galaxy* (2001), argues that the flat rate is a factor in the unlimited access to the Internet and its content, and the gradual increase in bandwidth has enabled faster and more efficient management, browsing and downloading of content. Ignasi Ribas, following Castells, says: "As the bandwith of networks appoaches that of modern local devices, all the possible creative uses of interaction by means of multimedia elements must be able to be transferred seamlessly and without any problems to be enriched with the specific opportunities to update and relocate content and the opportunities for shared and immediate authorship or participation in networked interaction" (Ribas, 2000:9). In recent years, the new participatory web has provided the opportunity for network users to generate their own content (the user is no longer a consumer and becomes a broadcaster or producer of content in a medium in which authorship is no longer individual but instead collective·collective and shared. This trend is is becoming significantly more marked in communication using mobile devices (Castells, 2006:388).

emergence of different formats and the creation of new genres, such as the **interactive multimedia documentary**[3].
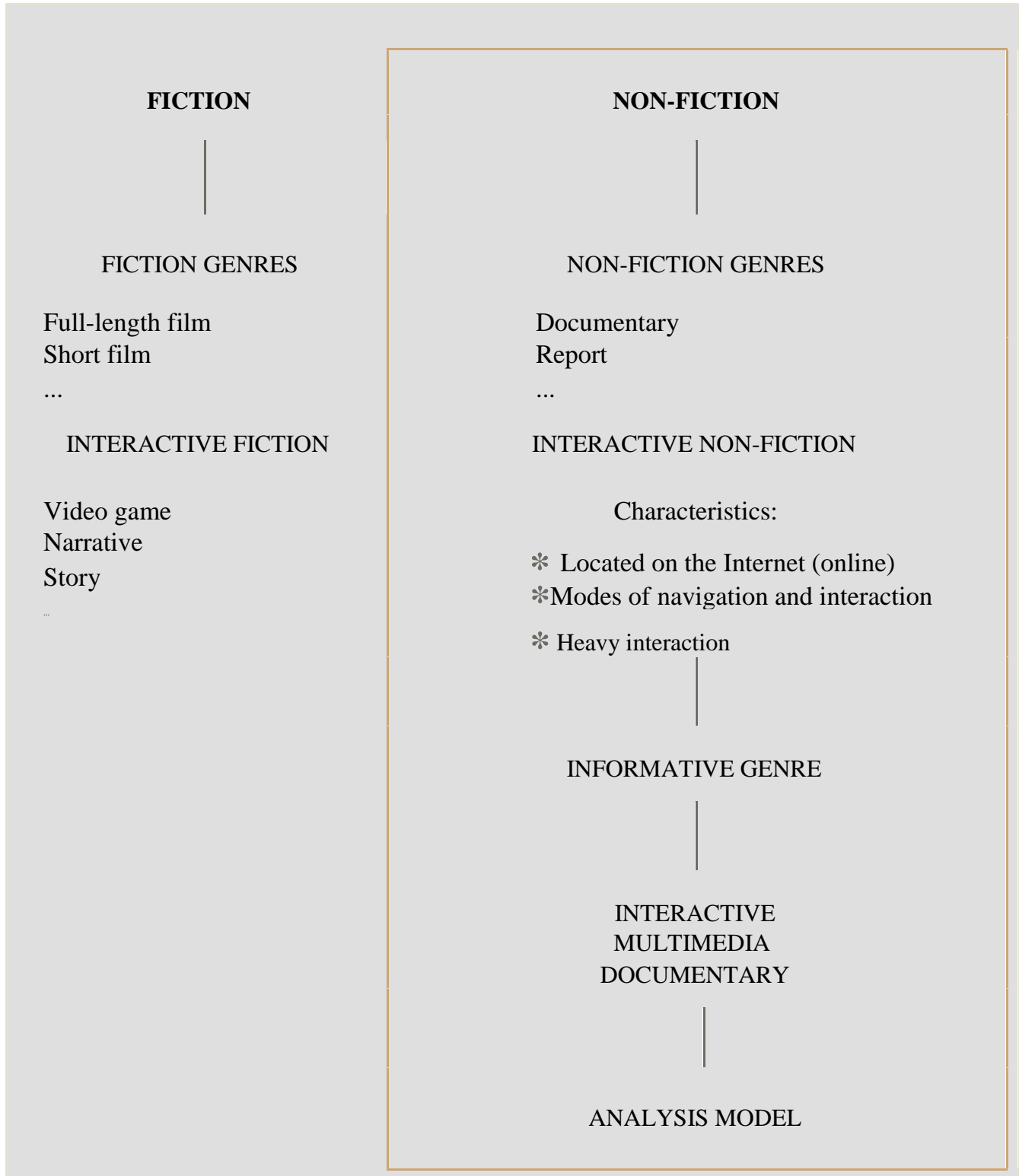
The idea behind this paper is to provide an initial state of the art of the parallel development, and even the convergence, of two different thematic areas: the theme of the documentary genre, focusing on a general approach, some proposals for classification and its modes of representation; and the digital medium, focusing on its birth, its forerunners and its development.

In the late twentieth century, and especially in the early twenty-first century, the two stories developed along separate lines. They overcame challenges, survived in a changing environment and achieved a remarkable degree of maturity. After this first contact, each genre adopted a set of properties and characteristics belonging to the other. To a certain extent, a principle of fusion took place based a mutual attraction: the documentary genre brought its various **modes of representing reality** and the digital media, the new **methods of navigation and interaction**. At this point in the narrative, the major question is when the climax of this story will occur, and whether the outcome will have the typical happy ending or whether we will witness a possible breakdown and separation, with irreconcilable differences. We are the onlookers of this interesting relationship that has been established between the audiovisual documentary and digital interactivity, and we have the window of opportunity to see and analyses whether the fusion will be complete and whether the new genre will become fully consolidated. The convergence between the audiovisual and digital components has already been studied by many authors, and the important question is how far it can progress and which new forms of representation, navigation and interaction will be the result. This scope of this research is limited to studying the **genres related to interactive non-fiction**. This non-fiction must be interactive. These are **projects that disseminate something**, in which there is at least **one specific way of interacting with the system's interface by means of non-linear navigation**

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[3]According to Sandra Gaudenzi (2009) in her research study *Digital interactive documentary: from representing reality to co-creating reality*, which relates interactive digital documentaries with the cybernetic systems described by Maturana and Varela (1980 and 1987). When we refer to interactive documentaries we mean "a digital interactive documentary [that] not only uses a digital support (that could be anything from digital video to mobile phones or the web... but also demands some embodied interactivity from the user-participant (in other words a participation that is more than the mental act of interpretation). interactive digital documentaries that not only use a digital format which could be any existing medium, from digital video to mobile phones or the Internet, but also require a physical-corporal type of interaction by the user-participant, an involvement that goes beyond the mental action of interpretation ... with the aim of identifying different logics of documentation of reality and new modes of subjectivity" (Gaudenzi, 2009:4)**.** Available for consultation online at: http://www.interactivedocumentary.net/wp-content/2009/07/sg_panel-yr3_2009_overview.pdf.

(where the user has to make decisions to make progress), and which are also **located on the Internet**. Figure 1.1 defines the scope of this research.

Figure 1.1 DEFINITION OF RESEARCH

FICTION	NON-FICTION
FICTION GENRES	NON-FICTION GENRES
Full-length film Short film ...	Documentary Report ...
INTERACTIVE FICTION	INTERACTIVE NON-FICTION
Video game Narrative Story	Characteristics: ✳ Located on the Internet (online) ✳ Modes of navigation and interaction ✳ Heavy interaction
	INFORMATIVE GENRE
	INTERACTIVE MULTIMEDIA DOCUMENTARY
	ANALYSIS MODEL

1.1 Diagram defining the interest of this research

1.1.1 The research questions

The main questions arising from this work and which may provide the basis for the subsequent doctoral thesis are:

1. How can the **concept** of an interactive multimedia documentary be defined?

2. What **attributes and / or characteristics** must the genre have to be considered as such?

3. Will a **new type** called the author-user documentary, the web documentary or the interactive multimedia documentary appear?

4. Is there any **continuity between linear and interactive documentaries**? If not, how can **the differences** between the two media be reconciled?

5. How can the interactive digital and online media create **new logics for the representation of reality**?

6. What is the **basic difference between the traditional documentary modes of representation and the new types of navigation and interaction?** Which are more important in the genre studied?

7. What **new strategies** are needed so that documentary and informative non-fiction products are as appealing as fiction products? What are the **contributions / innovations** that **interactive communication** offers the interactive non-fiction documentary?

8. Will there ever be a **mode** in which the user (interactor-contributor-participant) is able to **generate content**, i.e. to assume the role of broadcaster and be able to enhance the document with their own personal perspective and content about the subject covered? What does this mean for authorship?

9. Ten years after the birth of the documentary in its interactive format and the transition from offline to online, what **contribution has the new web made to the development of this format**?

10. What type of **dialogue is established** between the interface and / or the system and the user? How is it different from the traditional audiovisual genre?

11. What are the possible **categories**, **subcategories** and the **valid indicators** for constructing a **coherent analysis model** for the genre studied?

1.2 Objectives

As mentioned above, the central objective of this study - and the proposed doctoral thesis - is to **analyses the state of development of the interactive multimedia documentary** and to argue for the adoption of an **analysis model** for the new genre, both for evaluating existing documentaries and for the creation of guidelines for their design and production[4].

From a theoretical point of view, our aim is to focus the contribution of this research on the **strong implications** that begins to emerge between what we call interactive multimedia and **educational and cultural dissemination works**, and especially those **of an informative and documentary nature**.

Using the opportunities offered by the modern collaborative Internet, we intend to undertake a **theoretical approach to various models that aim to tell stories that are characterized by a new and growing interaction with the user:** the new modern approach involves the gradual abandonment of linear stories (which start at a given point and end at an end point previously decided upon by their creator) and moves towards a more nodal and branched scheme, in which each user-interactor can **choose their itinerary** and reach a different end point.

The overall objective of the paper is to **describe, classify and analyses informative interactive multimedia applications and documentaries online**. This process will take the Internet and offline applications as its starting point and will expand the possibilities until the desired level is defined: the informative and documentary multimedia applications online (see Figure 1.1).

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[4]To a certain extent, as Berenguer (2007) and other experts on digital environments have argued, the interactive multimedia documentary is an emerging genre that is about to experience a "technological singularity" as the author loses absolute control of the work and its linear flow and will be determined by parameters that enable the interactor (who is simultaneously a participant) to become part of the system and even modify it, as if it was a living system. Gaudenzi (2009) describes the basic difference between linear and nonlinear documentaries as follows, and justifies their contribution to research: "This is one of the differences between linear and interactive documentaries: digital interactive documentaries can be seen as "living systems" that continue to change themselves until collaboration and participation is sustainable, or wished by the users, or by the systems that compose it. In order to see the documentary as a system in constant relation with its environment, and to see it as "a living system" I propose in this research to use a Cybernetic approach, more precisely a Second Order Cybernetic approach, and to see the documentary as an autopoietic entity with different possible levels of openness, or closure, with its environment" (Gaudenzi, 2009:6). The new genre and the resulting new means of interaction will have characteristics generated by the user (who will also be a producer of content), and at this point, the author (in the same way as the scientist or programmer) loses control over the flow of his/her work, and the genre acquires unknown connotations. The end result of the documentary (what it says) and the discoursive order (hot it says it) may end up assuming very different forms to those initially anticipated by the director or the script of the work.

1.3 Methodology

The main methodology is based on the comparative study of the evolution of the two audiovisual areas studied - the conventional documentary and the interactive digital medium - in order to identify and examine the major theoretical and applied areas of convergence between the two areas (see Tables 1.1 and 1.2). A reading and analysis of theoretical works in the two areas described[5] are the methodological basis for the core initial research.

As regards the **documentary genre**, the analysis focuses on the works of three of the most well-known authors: Erik Barnouw (Barnouw 1996), Richard M. Barsam (Barsam 1992) and Bill Nichols (Nichols 1991, 1994 and 2001). We have also consulted important aspects of other authors including Michael Renov (Renov 1993 and 2004), Paul Rotha (Rotha 1952 and 1970), Michael Rabiger (Rabiger 1989), Elisenda Ardèvol (Ardèvol 1994, 1996 and 1998), Jan Breschand (Breschand 2002), Josetxo Cerdán and Casimiro Torreiro (Cerdán & Torreiro 2005), Alan Rosenthal (Rosenthal 1988 and 2005), and Magdalena Sellés (Sellés 2008). The main focus is on Barnouw, Nichols and Renov, as these authors provide classifications for the different modes or types that can be useful when considering some comparisons with the various navigation and interaction modes. In addition, their classifications are among the most broadly accepted in an area that is as difficult to define as documentary categorization. As we studied and analyzed the history of the documentary, most of the representative works in this extensive field were obtained from various libraries and the Internet. As a result, as well as viewing many pieces, we also developed the historical part as well as audiovisual monitoring and analysis. We thereby created an audiovisual database on authors, theories, works and major films in the documentary genre.

As regards the **digital media**, the analysis is based on the theoretical concepts of interactive narrative and multimedia culture of authors including Lev Manovich (Manovich 2002), Janet Murray (Murray 1999), George P. Landow (Landow 1995, 1997 and 2005), Raymond Kurzweil (Kurzweil 1987, 1998 and 2005), Marshall McLuhan (McLuhan, 1985 and 1987) and Ted Nelson (1970, 1981 and 1997). We paid particular attention to the innovative authors in our immediate area: they include Xavier Berenguer (Berenguer 1991, 1995, 1996, 1997, 1998, 2000, 2002 and 2004), Ignasi Ribas (Ribas 1998, 2000, 2001, 2008, 2009 and 2010), Lluís Codina (Codina 2009, Codina & Rovira 2006), a recognized expert in online documentation,

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[5]Note that the methodology (text and tables) refers to a group of leading authors in each field, but that does not mean that the works of all authors cited are analysed in this research, as the aim is to anticipate the theoretical work that will be studied when producing the doctoral thesis.

Carlos A. Scolari (Scolari 2004a and 2004b, 2005, 2008a, 2008b, 2008c and 2009) and Hugo Pardo (Pardo 2005, Cobo & Pardo 2007), specializing in mobile communications and interactive narrative, among others. In addition, we used an intensive search of the Internet to compile valuable resources taken from universities around the world and from different networks (using metasearch engines). As well as several websites and blogs they were of great help in locating and selecting the existing works on the genre today.

In order to establish a categorization of the new genre of the interactive documentary, we are developing a **database** for **adding** and **ordering** each document, based on the following parameters:

1. The document must use digital technology from the point of view of heavy interaction (the user must be involved based on a kind of physical response, in the strictest sense of the term), which requires an active user instead of a passive viewer, i.e. the user's decision-making is considered a basic requirement for progress in the story.

2. The documentary must show some commitment to representing reality in order to document the situation in a particular way (something which characterizes the documentary part).

3. To be considered a truly interactive multimedia documentary, it must include at least one form of navigation or interaction (which characterizes the interactive digital part).

This database, which will have free access, aims to establish a **selection of categories** that facilitate **classification** of the existing works. It also aims to encourage interactors to participate in various ways: by contributing suggestions for improvements in the implementation or the inclusion of their ideas in the generative area or their impressions in a forum, etc.

Table 1.1DOCUMENTARY METHODOLOGY

THEORETICAL WORKS BY AUTHORS: READING + ANALYSIS	**Bill Nichols** **Erik Barnouw** **Richard Barsam** **Michael Renov** **Elisenda Ardèvol** **Michael Rabiger** Jan Breschand Josetxo Cerdàn Alan Rosenthal Paul Rotha Magdalena Sellès Alejandro Cock Etc.
AUDIOVISUAL WORKS (Documentaries) VIEWING + ANALYSIS	*La sortie des ouvriers des usines* (1895) - Germans Lumière *Nanook* (1922) - Robert Flaherty *Celovek kinoapparatom* (1929) - Dziga Vertov *Berlin, die Synphonie eines Grosstadt* (1927) - Walter Ruttman *À propos de Nice* (1930) - Jean Vigo *Regen* (1929) - Joris Ivens *Drifters* (1929) - John Grierson *Listen to Britain* (1942) - Humphrey Jennings *Why We Fight* (1943) - Frank Capra *Du und mancher Kamerad* (1955) - Andrew and Annelie Thorndike *Det Stora Äventyret* (1953) - Arne Sucksdorf *Glas* (1958) - Bert Haanstra *Chronique d'un été* (1961) - Jean Rouch *See it now* (1951) - Edward Murrow *High School* (1968) - Fred Wiseman *Primary* (1960) - Richard Leacock *La Jetée* (1962) - Chris Marker *Health Care: Your Money or your Life* (1977) - John Alpert *The Thin Blue Line* (1988) - Errol Morris *Human Reminds* (1998) - Jay Rosemblatt *Roger & Me* (1989) - Michael Moore Etc.
RESOURCES SEARCH	**Offline:** Libraries Archives **Online:** Web (metasearch engines)
=	Preparation of a database accessible and searchable on the Internet. (Web portal with dynamic content manager)

1.1 Diagram summarizing the methodology used to carry out research on the documentary genre

Table 1.2DIGITAL MEDIA METHODOLOGY

THEORETICAL WORKS BY AUTHORS: READING + ANALYSIS	**Lev Manovich** **Janet Murray** **George Landow** Raymond Kurzweil Ted Nelson **Xavier Berenguer** **Ignasi Ribas** **Lluís Codina** Hugo Pardo Carlos Scolari Manuel Castells Etc.
INTERACTIVE WORKS ANALYSIS	OFFLINE *Au cirque avec Seurat* (1996) *Dotze sentits* (1996) *Joan Miró. El color dels somnis* (1998) *Le Louvre. El palacio y sus pinturas* (1994) *Le mystère Magritte* (1996) *Makers of the 20th Century* (1996) *Moi, Paul Cézanne* (1995) *Musée d'Orsay. Visite virtuelle* (1996) *Operation Teddy Bear* (1996) Online (interactive multimedia applications) *Andaman Rising (2008)* *Canto do Brasil (2006)* *Génération Tian'Anmen (2009)* *Our first loves (2009)* *Remembering Bogle Chandler (2008)* *Theban Mapping Project (1997)* Etc.
RESOURCES SEARCH	**Offline:** Universities Libraries **Online:** Web (metasearch engines)
=	Preparation of a database accessible and searchable on the Internet. (Web portal with dynamic content manager)

1.2 Diagram summarizing the methodology used to carry out research on the genre of digital media

Table 1.3INTERACTIVE MULTIMEDIA DOCUMENTARY METHODOLOGY

THEORETICAL WORKS BY AUTHORS: READING + ANALYSIS	**Timothy Garrand** **Glorianna Davenport** **Mike Murtaugh** **Sandra Gaudenzi** Mitchell Whitelaw Nick Montfort Chris Crawford Espen J. Aarseth Connor Britain Etc.
PERSONAL CONTRIBUTION TO RESEARCH	Definition of the genre Characteristics according to Nichols' triple definition (filmmaker/author, text/narrative and viewer/interactor) Description and list of the modes of non-linear navigation and digital modes of interaction Combination of the various modes described Proposed classification / categorization of the genre Consideration, rationale and development of an analytical model
WEB SEARCH + ANALYSIS EXAMPLES OF IMD (interactive multimedia documentary)	Online *BCNova (2003)* *Becoming Human (2008)* *Capturing Reality: the Art of Documentary (2008)* *360degrees (2001)* *Gaza Sderot (2008)* *GDP: Spacing Montreal (2009)* *Guernika, pintura de guerra (2007)* *Hope: Living and Loving with HIV in Jamaica (2006)* *Journey to the end of the coal (2008)* *The big issue (2009)* *The Iron Curtain Diaries (2009)* *Jazz Loft Project (2010)* *When we left earth (2010)* *Etc.*
	Offline Written documents
=	Preparation of a database accessible and

		searchable on the Internet. (Web portal with dynamic content manager)	
	Database characteristics	Free access Proposes a new criterion for selection and categorization Encourages participation	

1.3 Diagram summarizing the methodology used to carry out research on the genre of the interactive multimedia documentary

1.4 Brief description of the chapters in this work

The aim of first, second and third chapters is to place the research in context based on a review and an enumeration of the different eras that the documentary has experienced as a genre, and the various areas that have influenced and/or created today's multimedia culture. The main objective of these first chapters is to classify authors, studies, works and applications to provide two omni-comprehensive systems of parallel development experienced by the documentary genre and interactive digital media to date (see tables 1.1 and 1.2).

The fourth and fifth chapters focus on the purpose of this research. The fourth chapter defines the context within which this new interactive format, the network, is framed. It also tries to establish the differences between online and offline interactive informative content. Finally, this this contextualization is completed by an enumeration and a short description of various online experiences. The fifth chapter aims to examine the various logics and ways of organizing and constructing the documentary discourse on reality between linear documentaries and interactive documentaries. At the end of this chapter, we look at the first part of our personal contribution to the research: based on different ideas and approaches, we suggest a possible definition for the interactive documentary and a set of specific characteristics, grouped according to whether they are related to the author (the broadcaster), the text (message) or the interactor (receiver) (see Table 1.3).

The sixth chapter presents and develops a possible model for specific analysis applied to the interactive multimedia documentary, and some indicators of the categories and subcategories are applied to a few representative examples of the genre. The second part of our personal contribution to the research is carried out in this chapter.

The seventh chapter concludes the research, and focuses on two specific points: first, it establishes consistent conclusions based on an analysis of the previous chapters and second, it suggests a series of optimal research areas for the doctoral thesis. Based on the search for a

series of applications complying with specific parameters relating to the field of the interactive multimedia documentary, and an in-depth analysis of the most important examples and the crucial role played by the non-linear types of digital navigation and interaction, we consider possible new forms of navigation and interaction with the interactor, while anticipating and describing the new possible new types of modes of navigation and interaction leading to the future eras of the Web. The following diagram presents the distribution of the research work chapters:

Table 1.4 DESCRIPTION OF CHAPTERS

DIGITAL MEDIUM DOCUMENTARY Analysis of some key aspects in the history of digital medium and the documentary genre	INTRODUCTION	CHAPTER 1
	DIGITAL MEDIUM	CHAPTER 2: The digital medium: significant eras and individuals
	DOCUMENTARY GENRE	CHAPTER 3: Definition, classification and approach to the documentary genre
THE INTERACTIVE MULTIMEDIA DOCUMENTARY Characterization and proposed analysis model focused on the interactive multimedia documentary	CURRENT CONTEXT	CHAPTER 4: Internet and interactive applications
	INTERACTIVE MULTIMEDIA DOCUMENTARY	CHAPTER 5: The interactive multimedia documentary. Definition and characteristics
	ANALYSIS MODEL APPLICATION OF ANALYSIS MODEL	CHAPTER 6: Proposed schematic model of analysis applied to the interactive multimedia documentary
	CONCLUSIONS	CHAPTER 7: Conclusions and perspectives for research in the doctoral thesis
BIBLIOGRAPHY WEBGRAPHY		

1.4 Diagram of the distribution of the research work chapters