

Ways of Feeling: audience's meaning making in interactive documentary through an analysis of Fort McMoney

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The transition of documentary film to digital platforms has changed the cinematographic narrative. We still use the language of traditional films (take, perspective, camera movement, montage) and Bill Nichols' modes of documentary (2001) are still pertinent to non-fiction film making, but interactive documentary adds unprecedented complexity to film analysis. Interactivity is a crucial recent innovation of film language, which gives a radically new dimension to the documentary form. Interactive documentaries have a two-fold nature: they are both forms endowed with meaning and experience structures that enable meaningful actions, both on the syntagmatic and the paradigmatic axis. Employing a multimodal framework, which combines film analysis with the analysis of non-linear structures, the study of interactive documentary becomes the exploration of its narrative experience, the account of the ways it engages the audience in its constant (re)creation. The analysis of the National Film Board of Canada's documentary Fort McMoney (Dufresne 2013) approaches the interactive potential of meaning-making in a digital documentary, both in its aesthetics and its structure, by focusing on the experience of interaction.

KEYWORDS interactive documentary; interactivity; multimodality; audience participation

Introduction

The term 'interactive documentary' was originally used by Mitchell Whitelaw (2002) to describe documentaries that open up the narrative's structure, which is at the core of traditional documentary, and challenge the principle of narrative coherence. The non-linear structure of interactive documentaries allows the appearance of what Lev Manovich has called the 'spatial montage', which represents 'an alternative to traditional cinematic temporal montage, replacing traditional sequential mode with a spatial one' (2001: 322). Interactive documentaries are distinguished from traditional documentary films by virtue of the fact that, as interactive texts, they provide audiences with several possibilities, realities and interpretations. They are what Umberto Eco (1989) has called 'open works', a peculiar modern form of art that marks a radical shift in the relationship between artist and public, requiring of the audience a higher degree of collaboration and involvement than had ever been required by traditional art. In these digital artifacts audiences construct their own narrative while navigating through the available paths.

The rise of new technologies has provided audiences with greater power and autonomy (Jenkins 2006). No longer confined to watching and interpreting they are allowed to modify, interact with, choose from and contribute to the creation of a different narrative, a narrative that is rebuilt each time it is accessed. In an interactive documentary, the viewer enjoys several paths and possibilities of access, fostering a process of participatory meaning-making. Interactive documentaries therefore present us with new relationships between audience and text, and we must understand not only how audiences make sense of documentaries, but also how they interact with them and analyze the interaction's meaning.

This study aims to investigate how interactive documentary represents 'social reality', taking into account the fact that 'documentaries take up public issues from a social perspective' (Nichols: 163). Therefore, we use the *Fort McMoney* interactive documentary as a sample to analyze content, form and interactions, considering the three dimensions as connected and influencing one another. *Fort McMoney* is a game-based interactive documentary, with a non-linear and unstructured narrative, that addresses the environmental issues behind the oil industry. The documentary is inspired by the urban service area of Fort McMurray, in Alberta, Canada - the location of the world's second biggest oil sands. Such oil exploration entails several environmental, social and economic problems that *Fort McMoney* brings to light and tries to secure from the audience an active role in seeking a solution. Using a social semiotic approach, the study adopts a multimodal framework to analyze interactive documentaries and identifies the semiotic options available to audiences. The pathways created by users as the documentary unfolds and the *ways of feeling* they develop during the interaction are described as several senses that operate simultaneously.

Interactive Documentary Description

Interactive documentary-making is an emergent, continuously developing field, that brings together documentary filmmakers, designers and visual artists in the exploration and development of groundbreaking new forms of communication. For Galloway et al., 'any documentary that uses interactivity as a core part of its 'delivery mechanism' can be called an interactive documentary' (2007: 12). We may infer that an interactive documentary is a non-fiction film that allows the public to play an active role in the making of the narrative, providing thus an individualized experience. As for the term 'documentary', we adopt John Grierson's definition of 'the creative treatment of reality' (as cited by Hardy 1946: 11) which makes it clear that the documentary form addresses the world in which we live, but that it is not a mere report of reality. As Bill Nichols argues, despite its indexical relation with reality, documentary 'stands for a particular view of the world' (Nichols 2001: 20) with a unique authorial voice or point of view.

When we add interactivity to a documentary, 'the viewers themselves can be given the opportunity of choosing what material to see and in what order' (Miller 2004: 345). Despite its relatively short lifespan, interactive documentary has already been recognized as a genre, and the works produced over the last 15 years have taken a wide variety of forms, as described by Aston and Gaudenzi (2012). We may place within this genre works such as: *Waterlife* (McMahon 2009), that consists of a digital repository exploring the beauty of the Great Lakes and their degradation due to water pollution, incorporating videos, texts, images and sounds; *Journey to the End of Coal* (Bollendorff and Ségrétin 2008), which provides the audience with a journey through hyperlinks to the Chinese coal mines to witness the precarious working conditions, and combines still and moving images, texts and sounds; or even, *A Journal of Insomnia* (Choiniere et al 2013), which uses a participative strategy to gather videos, texts and graphics from the audience, in order to build a collective experience of insomnia.

The element of interactivity has allowed documentary to develop new modes of subjectivity, new approaches to its subject matter and new relationships with the audience. Just as Bill Nichols (2001) defined the fundamental modes of documentary for traditional non-fiction films according to their aesthetic approach to reality, Sandra Gaudenzi (2013) suggests a terminology for addressing interactive documentaries taking into consideration the kind of interactivity characterizing each work. The most common mode of interactive documentary, according to her, is the *Hypertext mode*. In this type of work, audiences are invited to trace their own path through multiple narrative choices. Similar to a CD or DVD menu structure, audiences can access a pre-existing archive of videos and other content in the order of their choice. 'With the increasing popularity of Web 2.0 platforms, documentary makers are increasingly inviting content created by fans' (O'Flynn 2012: 142) allowing audiences to participate in the documentary's narrative, adding opinions, stories and even video content. The documentaries that hold this possibility of gathering multiple inputs were defined by Gaudenzi as

operating in a *Participative mode*. Another mode of interactive documentary proposed by Gaudenzi is the *Experiential mode*. Such works consist in locational documentaries that invite participants traveling through a specific physical space to share their experience of the place.

Fort McMoney, the National Film Board of Canada's interactive documentary with its characteristic video game strategy, belongs to what Gaudenzi (2013) defines as the *Conversational mode*. This kind of documentaries are based on Human-Computer-Interaction and inspired by Andy Lippman's concept of interactivity, as described in her interview to Stewart Brand (1987). Lippman believed that interactivity should be grounded in five key principles: (i) *interruptibility*, i.e., the action can be interrupted at any time by the user; (ii) *graceful degradation*, i.e., an unanswered question should lead to a smooth transition; (iii) *limited look-ahead*, i.e., the platform should respond in real time to the user's orders; (iv) *no default*, i.e., the conversation must seem unpredictable and not based on formatted responses; and (v) *impression of infinite database*, i.e., the interaction must seem endless, to cause a perception in the user that possibilities extend to infinity.

Fort McMoney presents a very complex structure, since it offers audiences several narrative possibilities, as well as the opportunity to navigate backwards and forwards through the documentary's contents. The documentary's subject was inspired by the Athabasca oil sands, located in Fort McMurray, in Alberta, Canada. The film itself provides audiences with a sense of control over the city's virtual future, exploring Fort McMurray's social, economic, political and cultural dimensions through real footage. Over sixty days, a team from the National Film Board of Canada (in collaboration with the private company Toxa and the French television channel ARTE) filmed 2,000 hours at 22 of Fort McMurray's locations, under the direction of David Dufresne. This included 55 interviews with citizens, ranging from homeless people to the Canadian environment minister, and the chairman of the energy giant Total. Audiences are able to travel virtually around the city, meet residents and learn their opinion about certain predetermined issues. Despite presenting several different arguments in the discussion, the interactive documentary has a clearly marked position that could be transmitted through the voice of a spokesman of an action group: 'They call it development. We call it destruction.'

Fort McMurray is a multicultural community, attracting people from all parts of Canada and the world with the promise of well-paid jobs. However, not all immigrants succeed, and housing prices and rents are far higher than one would expect in such a remote area. The result is that a significant number of people live in caravans, and there is a high rate of homelessness and prostitution. In addition, the average temperature during the winter is -18 °C, with the lowest recorded temperature as -50.6 °C, making life difficult for those living in Fort McMurray. The interactive documentary *Fort McMoney* approaches all these issues and tries to secure from the audience an active role in seeking a solution to Fort McMurray's problems. Through the documentary, the viewer is able to visit several places in Fort McMurray, hear stories from its residents and interrogate the city's figures in the interviews.

David Dufresne had already explored the genre through a game strategy in his previous interactive documentary, *Prison Valley* (Dufresne and Brault 2010). *Fort McMoney* is stratified in levels, and has a progressive structure, according to which users must complete a set of tasks to gain access to certain areas. Each option chosen by the viewer has an impact on the city's life, for it is accompanied by an accumulation of points which, through their conversion into votes, enabling him to vote in the city's virtual referendum that will influence (together with other user options) Fort McMoney's development. More specifically, each action performed by the viewers earns them influence points that enable them to vote in referendums and thus contribute, as part of a collective experience with other viewers, to the transformation of Fort McMoney. The final outcome is a synthesis of the interaction of all the participants. Despite its interactivity and a strategy reminiscent of video games, *Fort McMoney* follows a documentary approach to the extent that, with the aim to engage audiences in the issue of sustainable economic development, it seeks to 'give a tangible representation to aspects of the world we already inhabit and share' (Nichols 2001: 1).

Framework

Several multimodal approaches have been developed in recent years, largely due to the interest of many researchers in the complex processes of meaning-making (see e.g. Kress 2009, 2010; Norris 2004, 2009; van Leeuwen 2005). In order to analyze interactive documentaries, we propose a framework based on a multimodal analysis, which derives from Halliday's (1978) social semiotic approach. Social semiotics presents a set of possibilities to analyze a narrative's content: namely, political acquaintances, formal composition and, mainly, the relationship between the audience's interpretation and the text. To some extent, social semiotics regards the film's conception and audience's interpretation as closely related. This approach fits especially well to an interactive documentary, since the latter comprises of a personalized narrative built by the audience at the moment of viewing. Furthermore, unlike traditional semiotics, 'social semiotics does not focus on "signs", but on social meaning and in the entire processes ("texts")'(van Leeuwen and Jewitt 2008: 187). By employing, moreover, the concept of 'visual grammar', as proposed by Kress and van Leeuwen (2006), we aim to research how these structures are used by contemporary image producers to construct meaning. The concept stems from systemic-functional linguistics as theorized by Halliday (1994), and views language as a system of potential meanings, as an open number of semantic choices that are related directly to the social contexts in which the language is used.

By highlighting the multifunctional character of language, Halliday (1978) drew up a systemic-functional grammar, identifying three kinds of meaning, or rather three main 'metafunctions', always held simultaneously in every form of communication. These are: the *ideational metafunction*, which regards the type of ongoing activity undertaken by the transitivity system; the *interpersonal metafunction*, which relates to the type of relationship established between the participants, and is expressed through system mode and modality; and the *textual metafunction*, which concerns the way the text organizes ideational and interpersonal metafunctions by a theme system.

In their analysis of multimodal texts, Kress and van Leeuwen (2006) outlined a visual grammar by adapting the Hallidayan theoretical notion of metafunctions to the visual semiotic mode. From this perspective, the ideational, interpersonal and textual metafunctions are now called 'representational' (an idea or activity carried out by the participants represented in the image), 'interactive' (they perform the type of interaction established between participants, spectators and image producers), and 'compositional' (they perform coherence and cohesion between the informational elements of the image), respectively. According to Kress and van Leeuwen (2006), the term 'grammar' is associated with the idea of a set of rules that must be obeyed, in the sense of socially acceptable norms. The concept, therefore, of 'visual grammar' aims to describe the way in which individuals, objects and places are combined in a constitutive fullness of meaning. Thus, the social semiotic perspective views rules as socially produced and changeable through social interaction. Such a conception contradicts the traditional definition of semiotics inherited from Saussure, since he considered rules as being fixed and unchangeable.

From a social semiotic perspective, as well, Jewitt (2006) indicates four theoretical bases on which the multimodal approach is built. The first basic assumption is that meanings are produced, distributed, received, interpreted and reproduced through a series of communicative and representational modes. The second assumption states that all semiotic modes, in addition to speech and writing, are shaped by their cultural, historical and social uses in order to perform different forms of communicative work. The third assumption refers to the fact that people manage meanings by selecting and setting different modes, so that the interaction between these resources is extremely significant in the production of new meanings. The fourth assumption, in turn, stresses that the meanings of the signs made by the semiotic modes are social, i.e., constituted by the norms and rules operating at the time of the sign's production. In the case of an interactive documentary we can argue that such meanings are influenced by the interests and motivations of a sign's producer (i.e., director, designer, coder) in a specific social context, who selects, adapts and reshapes meanings through a continuous

process of reading/interpretation of the sign. Such a research approach allows the investigation of the interactions between participants (the documentary's producers and audiences) and analysis of the main compositional structures on a syntagmatic dimension, considering the three metafunctions.

In our examination of the rhizomatic structure of *Fort McMONEY*, we combine Kress and van Leeuwen's (2006) multimodal social semiotic analysis, and a diagram adapted from the non-linear model proposed by Martinec and van Leeuwen (2009). Such an approach comprises two main objects of analysis: a documentary film that is presented in as a non-linear, fragmented narrative, and an interface that enables readers to 'travel' from one film segment to another using hyperlinks.

From a cinematic perspective, we must consider that the ideational metafunction relates to world events, i.e., the actions, events and state of things, consisting in the documentary's *mise en scène*. The interpersonal metafunction, on the other hand, concerns the social relations between the individuals involved in the interaction, and should, therefore, be analyzed through the proxemics of the image. Especially useful, to this purpose, are Kress and van Leeuwen's (2006) definition of perspective, distance, coding orientation and visual focus or gaze. These elements of visual grammar concern the establishment of a closer or more distant relationship between the producer of the image and the viewer, determining different attitudes between participants and creating greater or lesser involvement between them. The organization of these elements themselves within the frame comprises a crucial dimension of meaning. For example, the willingness of participants represented in the visual space of the frame can be used by the image producer to give a greater or lesser focus to the required information.

The textual metafunction concerns the cohesion and coherence of a text's form, both in relation to the internal organization of the elements and in relation to the environment in which the text is created — thus, narrative and editing will be considered at this level of meaning. However, we could not interpret interactive documentary through film analysis alone:

In interactive media there are new variables: code, interfaces, algorithms and an active user. [...] The interactive documentary is therefore a fluid form, not a fixed one. It is the result of interconnections that are dynamic, real time and adaptive. An interactive documentary as an independent and stand-alone artifact does not exist. It is always related to heterogeneous components. (Gaudenzi 2013: 74)

In this study, Human-Computer-Interaction should be perceived as a form of communication mediated by a computer in which the user establishes a conversation with the machine and ultimately, we may infer, with the documentary's author. This mediation occurs through an interface (i.e., through a designer), which is also part of the communication process and endowed with meaning.

It is likely that signs in text, images and sounds are meant to be interpreted, since they produce effects. Similarly, the structure and design allowing audiences access to the interactive documentary's content have an effect on the ways in which audiences make sense of interactive documentaries. Therefore, we propose the following framework for analyzing interactive documentaries:

Objects of analysis	Ideational metafunction	Interpersonal metafunction	Textual metafunction
documentary film	actions / <i>mise en scène</i>	proxemics	composition / montage
interactivity		diagram of non-linear model (if applicable)	
interface	signifier / signified	elements within the screen	address and expectations

Table 1: Framework for the analysis of three multimedia elements, according to three metafunctions

If we consider Halliday's metafunctions in analyzing the interface, we will find that ideational meaning comprises a signifier and a signified deriving from the interface. On the interpersonal level, we will examine the location of the hyperlink within the screen and the textual metafunction to consider whether the sign addresses the user directly or indirectly, and what kind of expectations are raised.

Although we placed *Fort McMoney* in the *Conversational Mode* (considering the kind of interactivity it allows), audiences make their choices through clicks. In an interactive documentary audiences are expected to be active, since, irrespective of whether the hyperlink is represented through words, images, shapes or colors, its signifier is meant to be manipulated to perform its interactive function. Therefore, audiences must activate the hyperlink to create meaning. When it is combined with other elements within a syntagm of the text displayed on the screen (and also paradigmatically), it functions through selection, thus enabling the actualization of one of several possible textual realizations or paths. In order to access content, that is, audiences must choose hyperlinks and create pathways. The latter are determined by a number of screens, which are constituted by various elements — such as verbal, written, sound and multimodal or hypertext systems — that are interchangeable and represented by different, but related and integrated, semiotic systems.

In approaching *Fort McMoney* as a networked non-linear model (Martinec & Leeuwen 2009) we draw a diagram that reveals the documentary's structure and allows us to understand how audiences 'travel' through the film. Through the documentary's analysis, we demonstrate that the organization of information creates particular semantic relations between its constitutive elements; otherwise, the authors' diagram would not make sense. Therefore, the structure can be perceived as a mediative system between the film and the interface, one that enables audiences to create a narrative throughout the navigation process.

Fort McMoney's Analysis

When we arrive at Fort McMoney, we are confronted with a cold and inhospitable place. The first wireframe in the interface, which acts as a gateway to Fort McMoney, is an image of an icy landscape with vapour, resembling an explosion (Figure 1). The sound of wind blowing makes us snuggle in our coats and get ready for the experience to follow. The introductory video segment is a travelling movement filmed from a car's point of view that drives us to the first level. The first shots, as well as others during the experience, resemble the opening sequence of Michelangelo Antonioni's *Il Deserto Rosso* (1964), which presents the industrial structures of a petrochemical plant (Figures 2 and 3). A female narrator serves as a guide to explain rules and provide clues. This female voice addresses the viewer directly, in an apocalyptic tone: 'you have reached the end of the road at the world's edge'. In other moments, the voice has a more informative tone, explaining to the audience the documentary game's rules or providing background information about what has happened and is happening. The narrator addresses viewers in the second person, assigning thus to them the role of the main character, and summoning them to take control. Sentences such as 'your mission?' and 'Fort McMoney's faith is in your hands' reinforce the feeling that audience's actions and choices cause the narrative to move forward. At certain moments, there is music to create a more immersive environment and create the emotional mood intended by the director.

Perhaps because *Fort McMoney* has a game-like structure, David Dufresne felt the need to draw the audience's attention to the indexical nature of the interactive documentary: 'you are embarking on a documentary game where everything is real: the places, the events, the characters...', since an 'indexical image serves as empirical or factual evidence' (Nichols 2001: 125). Furthermore, this statement is used as a validation criterion because 'wherever it is possible to argue about whether something is "true" or "real", there will also be signifiers for "truth" and "reality"' (van Leeuwen 2004: 16).



Figure 1. Fort McMurray's wireframe



Figure 2. Fort McMurray's petrochemical plant



Figure 3. Still frame from *Il Deserto Rosso*

Fort McMurray is structured around different levels in the same way as a video game, enabling audiences to go forward in the documentary's narrative and attain greater involvement in decisions considering the city's future, as they deepen their knowledge and interact in civil life. At the beginning of each level, we access an interface of still images representing public places at Fort McMurray, in a 160o view that rolls right and left, as if viewers actually turn their head and look around. Therefore, interactive signs (or buttons) are mostly placed at the screen's centre, or their position depend on the viewer and their choice to roll the wireframe right and left (Figure 4 and 5). Furthermore, all subjects that embody an interactive sign address the audience directly, facing the camera, with a view 'more interactional and emotive than representational' (Kress and van Leeuwen 2006: 89), to establish an imaginary relationship with audiences. In each middle screen, there are several possibilities – from getting to know some individuals, to accessing buildings or a news media archive, or picking up clues with information for the next levels (Figure 6).



Figure 4. Subject that embodies an interactive sign



Figure 5. Subject that embodies an interactive sign

Characters are placed in the image's centre, looking at the audience in a long shot from an eye-level camera angle, waiting to be chosen for interaction. On the other hand, archives and small documents with game clues are scattered over the ground. This director's decision emphasizes the human stories and experiences over the additional materials, and makes them less obvious. At the end of the first level, audiences are interpellated by

the police patrol and invited to register to keep a record of their interactions and scores. Without registration, the user has no access to the second level.



Figure 6 . Clues scattered over the ground



Figure 7. Walking alongside subjects (front)



Figure 8. Walking alongside subjects (back)

Among the other elements incorporated into *Fort McMurray* we find documentary segments, during which audiences are not able to perform an action, except to pause the playback and go forward to the next stage. Not all documentary segments can be regarded as a scene, as some of them occur in more than one location, but they may be considered as a sequence since they are related to a certain character. This element has an informative function (i.e., it mainly offers information about places, lives and conditions) and an argumentative function (i.e. it presents topics advocated in a particular situation).

Most documentary segments begin with establishing shots, introducing the viewer to the place inhabited by the character. Subsequently, the audience follows the character in an everyday-life situation, such as walking or driving a car. The character is filmed mostly in a medium sized shot, creating the sense that we are close enough to have a chat with them, while we listen to a voice-over relating the subject's story of their life experience at Fort McMurray. David Dufresne presents several medium shots from different angles (front, side and mainly back) filmed with a handheld camera to follow the subject's journey (Figure 7 and 8). Audiences have the feeling of walking alongside the subjects while they talk, and thus the sense of a shared experience and moment. Sound combines the character's interview as voice-over, diegetic direct sound and background music in order to give the audience a more immersive experience. When we accompany a character who travels by car, traveling images frequently show the landscape outside.



Figure 9. Fort McMurray's icy landscape



Figure 10. Still frame from *Fargo*

In fact, landscapes are of major significance in the documentary's narrative, whether they are natural scenarios or images of an urban highway in the city's downtown. There are several moments when we behold Fort McMurray's surroundings through establishing shots, extreme long shots and traveling shots from the car's point of view, both in documentary video segments and in some videos that transport us between places or levels. The more we move away from the city and go towards its outskirts, the wider the shots become; this technique reinforces the feeling of how cold and inhospitable the region is. Some of the shots remind us of images from *Fargo* (Coen and Coen 1996), with its icy landscapes and deserted roads (Figures 9 and 10). The petrochemical plant itself is filmed in extreme wide shots to underscore the largeness and mightiness of the oil company, imposing a sense of distance and detachment on the viewer.

When the viewer encounters institutional representatives (mayor, minister, doctor, environmental activist), they are able to choose the questions that will be answered by the subjects. However, options are constrained to three topics predetermined by the director and could eventually be deepened in a more elaborate way if the viewer wishes. Regardless of whether the interview takes place at the City Hall, a council building or at a coffee shop, they have a very formal approach, with the interviewee filmed in a close up or in a middle-sized shot, as if talking to a news reporter (Figure 11). Few documentary segments, on the other hand, take place during the night. Nevertheless, these moments create a closer and more intimate relationship with the characters, as well as simulating different times of day in order to provide the impression of the passage of time. At the end of each documentary segment, the narrator provides audiences with instructions about their subsequent options. From time to time, the voice reminds the viewers that 'your choice will affect your experience', in order to provide a sense of empowerment and make the audience aware of the ultimate goal.

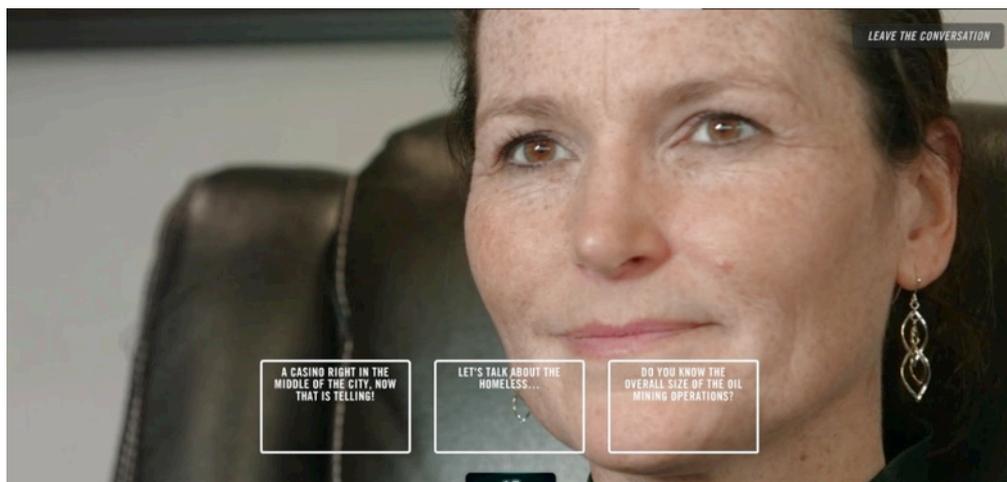


Figure 11. Interview with the City Mayor

As regards the interface, audiences are able to move forward in the story and build their own narrative through 'interactive signs' (Andersen 1997), since they can be directly manipulated by users. Interactive signs trigger actions in response to user interaction, as a means of providing feedback to the actions performed by users, by clicking on the characters or additional signs on the screen. In general, these signs change transient appearance and become other signs; i.e., each time the viewer clicks on a button (even if it does not have the appearance of a button), something happens to show them that their decision is ongoing. This behavior is critical in providing feedback on the user's action while it is being carried out. The sign button has the handling characteristics illustrated by the user's action of clicking on it and, as a result, triggering an action in the narrative.

Due to the great significance of the interactive documentary's structure, we have adapted the social semiotic model for multimodal meaning analysis, presented by Martinec and van Leeuwen (2009), in order to transform *Fort McMoney* into a diagram with a semantic structure. With this approach, we imply that the interactive documentary's different modalities (film, interface, still image, sound, text) can be converted into a meaningful whole. As noted by Martinec and van Leeuwen (2009) the choice of a non-linear model is motivated by the designer's goal and strategy.

In analyzing *Fort McMoney*'s navigational structure, which was designed by David Dufresne himself (Figure 12), we find a complex combination of nodes and connections aimed at creating a range of communication paths. The diagram drawn from the different navigation possibilities can be considered as a networked non-linear model (Martinec and van Leeuwen 2009), consisting of non-hierarchical and non-centralized information, as well as plenty of transitions between the documentary segments and the different levels. Therefore, as Jewitt argues 'there is no internal grammar to be broken — there is no essential "wrong order" because there is no prior reading path' (2004: 187). Such an argument coincides with Lev Manovich's perspective, who considers that 'new media objects do not tell stories; they don't have a beginning or an end; in fact, they don't have any development, thematically, formally or otherwise which would organize their elements into a sequence' (Manovich 2001: 218). He also argues that while cinema privileges narrative as the key form of cultural expression of the modern age, the computer age introduces the database through which the user can perform various operations: view, navigate, search.

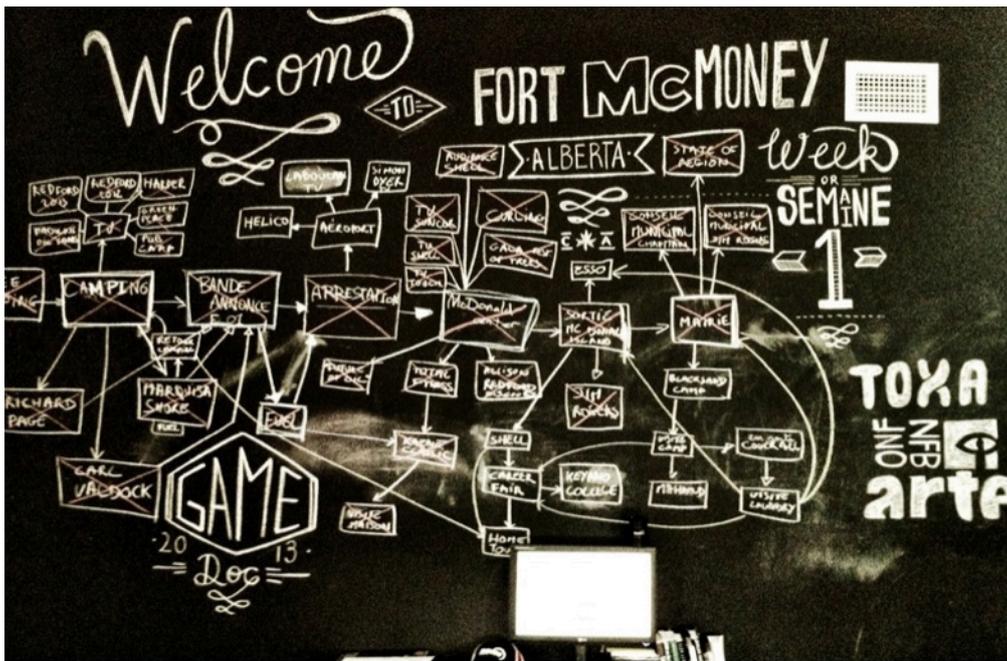


Figure 12. Fort McMoney's navigation structure designed by David Dufresne

In the case of these new digital artifacts we must make a distinction between the content (video, audio, texts, graphics, etc.) and the narrative, which represents the virtual path followed by audiences to access the content (Manovich 2001). Every interactive documentary contains, therefore, a significant amount of content which is not necessarily accessed. The viewer is allowed to navigate randomly through the content and chose specific information, selecting and appropriating the narrative which eventually interests them most. As regards *Fort McMoney*, the audience is given information about events, characters and the location/ environment, providing the audience with the context for their actions. Hence, the narrative establishes the viewers' position within it and the actions they are expected to take as a result. The most interesting aspect of this dynamic

content organization is the potential it creates to explore this virtual world as much as possible. Multiple storylines may be followed, leading the audience to a wide variety of content organization.

There are, however, certain steps that the user must follow in order to achieve the ultimate goal, which is still predetermined by the documentary director. In this sense, there are certain patterns to be found in the navigation structure. First, each interface level may be considered a node, connected to different documentary segments in order to allow audiences to develop their personalized paths. Moreover, some documentary segments have several connections to both nodes and other documentary segments. Second, the connections are designed to diversify the semantic values of each connection as much as possible — i.e., documentary segments are organized within patterns (public/private place; ordinary citizen/ institutional spokesman; urban/ rural landscapes) which are presented to audiences in an interlaced way with the purpose of creating a feeling of randomness. Third, and finally, there are certain predetermined landmarks, which must be revealed in order to accomplish the ultimate goal.

We must not expect *Fort McMoney*'s narrative to be structured in terms of a narrative arc or climax. The interactive documentary's structure is designed to offer audience a series of multiple climaxes that culminate in the documentary's conclusion. All the elements in *Fort McMoney*'s story lead audiences to an ultimate goal, whose accomplishment presupposes that viewers use everything they have learned and felt in the process.

Final Considerations

Fort McMoney is designed to be a journey, a roadmap through the city, presenting the viewer with several arguments to help them make informed decisions. It consists, primarily, in a non- linear narrative that progresses dynamically throughout the viewing experience. Its characteristic interactivity opens up the possibility of exploring several narrative paths that may occur simultaneously, in parallel or dynamically. At the same time, it operates as a matrix combination that enables choices and perspectives limited only by the existing database. Despite the viewers' progression towards a goal, defined by the documentary's director, each is free to find his or her own path through the process.

The interactive documentary provides viewers with narrative control and the possibility of choosing certain aspects of the environment — above all, the power to imagine an alternative Fort McMurray. This strategy provides audiences with a *sense of control* over the narrative's construction and, ultimately, the city's future. Through their actions and interactions they produce, transform, and continuously develop heterogeneous and interlinked spaces. The non- linear narrative of *Fort McMoney* may create a feeling of roaming around aimlessly. The interactive format demands from the viewer a certain degree of mental mapping to keep track of space both in Fort McMurray and within the documentary's structure. *Fort McMoney*'s indexical relation to reality provides audiences with the feeling of physically visiting the place and traveling around Fort McMurray, providing audiences with a *sense of place*.

This specific digital artifact is filmed in such a way as to place audiences in the role of the leading character. Despite all the different shot sizes, camera angles and movements, the camera always takes a first-person point of view, which encourages the identification of the audience with an active role in the documentary, and cultivates the feeling that the camera embodies the viewer's exploring gaze. Point of view shots permit a strong identification with the other characters on the screen, as well, in what Metz (1982) considers to be the process of 'spectatorial identification'. Such an approach offers the illusion of personal power and control over the world on the screen. *Fort McMoney* encourages such identification by inviting viewers to identify directly with the interactive documentary's protagonist, since they are actually in control and able to influence the documentary's leading character. The tasks performed by the audiences in the documentary reflect the development of their knowledge and skills, and contribute to their ego as a reward for their commitment.

Allowing the audience member a chance to act heroically, behave admirably and achieve the desired outcome may be the keystone in providing them with a positive *sense of self*.

Alternatively, we may consider the possibility of an incentive for the ego in seeking to perform better in comparison with others, in creating social bonds as affiliation and solidarity and pursuing social recognition. *Fort McMoney* uses a collaborative strategy to engage the audience's participation, and offers users the opportunity of constructing the city's future collectively. Audience members influence *Fort McMoney*'s virtual destiny but they must work together, and the final result may be considered as a shared construction of a virtual space of signification, which each user attempts to shape according to his social and political views. David Dufresne (2013) says that *Fort McMoney* is 'a platform for direct democracy', what Pierre Lévy (1997) would consider the result of a 'collective intelligence', as 'a form of universally distributed intelligence, constantly enhanced, coordinated in real time, and resulting in the effective mobilization of skills' (Lévy 1997: 13). Therefore, we may conclude that *Fort McMoney* strengthens community feeling and provides users with a *sense of belonging*. Furthermore, as Jewitt states, 'the potential of the medium to link texts via visual hyperlinks enables the reader to move between the entity character in the "fictional domain" of the novel and the entity character in a "factual domain" beyond the novel' (Jewitt 2004: 185). As such, the form strengthens the bonds between the interactive documentary and the audience. All these choices, however, are made within a closed database of footage, archive material and pre-selected arguments that are made available to the public. Although audiences are free to choose and create their own path through the contents, their choices are compromised by contents (in the documentary database), by how they are presented (via the interface) and by their own social and personal perspectives.

We conclude that reality is perhaps one of the best raw materials for interactivity and that 'true stories may be the crucial "content" that makes for a compelling new media experience' (Whitelaw 2002). Interactivity adds complexity to the documentary perspective and narrative, and fosters a new relation between producer, film and audience. We must be aware, however, that we are dealing with a novel kind of narratives, constructed and delivered through a new medium, which engage the audience in new, simultaneously pre-arranged yet also radically unpredictable ways. The investigation of these innovative and still relatively uncharted artifacts is a challenge that needs to be addressed at all the multiple levels of their construction and reception.

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