

Business Innovation and New Media Practices in Documentary Film Production and Distribution: Conceptual Framework and Review of Evidence

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Abstract

Documentaries, an important genre that is situated “somewhere between art, entertainment, and journalism,” serve the audience’s need for factual information, informed learning, and entertainment. But documentary production is a risky business for small filmmakers and it is difficult to establish sufficient cash flow to sustain a business. Producers often must work with low budgets and small licence fees, reliance on limited government support, increased pressure from broadcasters to give away multi-platform rights, and the prohibitive costs of satisfying copyright requirements. The “documentarist’s skill and magic” are no longer enough to secure producers with sufficient resources, creative freedom, access to the right set of skills and knowledge, and the infrastructure to go about their work. Innovation, or the creation of substantial new value for the public, is the key to future viability for documentary filmmakers. Our central question in this paper is: how might business innovation provide growth opportunities to documentary film producers? We are interested in innovation that exploits production for digital and interactive media, as well as on-demand and multiplatform consumption of digital content. We focus on the four domains of business innovation (offerings, customers, process, and presence) to organize our enquiry into documentary filmmaking and the ways it can create value for viewers. We discuss documentaries as experience goods, the need for better understanding of audiences, and production and distribution of documentaries based on new media business practices and models.

Key words

Documentary film, audiences, innovation, technology, digitization, new media, interactivity, multiplatform distribution, digital content, business system, media industries

1. Introduction

Documentaries are an important media genre, situated “somewhere between art, entertainment, and journalism.” Documentaries serve the audience’s need for information, learning, factual programming, and entertainment, and also raise serious issues for public consideration and action (Aufderheide, 2005). The decline in investigative journalism in many countries makes the documentary an increasingly visible and important genre. But documentary production is a risky business for small filmmakers because documentaries are usually relatively small-budget, one-off productions. Independent producers of documentaries often must work within major constraints: low budgets and small licence fees, reliance on limited government support or philanthropic sponsorship, increased pressure from broadcasters to give away multi-platform rights, and prohibitive costs to satisfy copyright requirements. It is therefore a challenge to establish enough of a cash flow to sustain a production business based on documentaries.

Over the past decade, documentaries have been enjoying a renaissance. However, the documentary industry has yet to vigorously approach the search for innovation in business practices, to exploit opportunities that are offered by content digitization, interactive media, on-demand and multiplatform distribution models, use of broadband, or re-engineering of the value chain. Innovation is the key to development of viable business models and practices for documentary producers. The development of business models that return revenue to content producers is a central issue in the new media environment (Berman et al., 2007), and business models that may offer rewarding opportunities to documentary filmmakers are emerging.

In this paper we review ways in which business innovation has been adopted to create and deliver value for documentary audiences, and we envisage ways in which innovation might take place to put the documentary production industry on a firmer business footing. We focus on the four principal domains of business innovation: offerings, customers, process, and presence (Sawhney, Walcott, and Arroniz, 2006).

2. Current context of documentary production

Documentaries are increasingly regarded as “chic” to watch and to produce (Goodale, 1998), and have undergone an extended renaissance over the past decade (Whitney, 2005). Titles such as *Fahrenheit 9/11*, *An Inconvenient Truth*, and *March of the Penguins* have enjoyed “unprecedented commercial success and critical acclaim” and confirm the revival of the documentary film in theatres around the world (DOC, 2007: 47). An increasing number of documentaries make it to the big screen, and specialized screenings continue to be successful (Hardie, 2002). Major documentary film festivals are finding success in cities such as Toronto, Amsterdam, and Sheffield. For example, the Hot Docs International Documentary Festival held in Toronto each year, Canada’s largest documentary film festival, increased its annual screening attendance between 1998 and 2007 from 4,000 to 68,000 (DOC, 2007). It is extremely difficult

to locate a source that indicates the size of the documentary market worldwide. Hogarth uses a report produced for RAI (the Italian public broadcaster) in 2000, where it is being suggested that in 2000 the worldwide documentary programming broadcast around the world surpassed 900,000 hours. North America and Europe accounted together for 57% of the hours produced and acquired, and for 75% of the global market¹ (Hogarth, 2006: 25).

Several interrelated factors create this favorable new context for documentaries. On the demand side, the increasing fragmentation of television audiences, the emergence of pay-per-view and digital specialty channels, and the decreasing costs of distribution technology have resulted in an explosion of outlets on cable, satellite, broadcast TV, and the Internet (Aufderheide, 2005; Whitney, 2005; Hardie, 2002). These outlets need documentaries to fill their programming, and suddenly, documentary is no longer “Hollywood’s stepchild” (Goodale, 1998).

Most important, audiences are becoming increasingly frustrated and bored by the narrow scope of mainstream television and entertainment cinema. End consumers are looking for high quality production values on the screen (Hardie, 2002; 2007). With its ways of engaging in storytelling about real people and real events, the documentary film is able to address the need of the theatrical marketplace that “has become ravenously hungry for films that scream authenticity” (Aufderheide, 2005: 25).

On the supply side, the development of digital, low cost production and exhibition equipment is giving more filmmakers a stronger presence in the marketplace (Aufderheide, 2005; Whitney, 2005; Goodale, 1998; Hardie, 2002; Kilborn, 2004). Those with a passion for filmmaking now enjoy the opportunity to produce, edit, and present their creations at professional standards thanks to available and accessible digital technologies.

However, by 2008 the documentary boom had flooded the market with documentary products great and small. The theatrical market for documentaries had collapsed (Ansen, 2008), heightening the importance of non-theatrical distribution channels for documentary films. Today the “documentarist’s skill and magic” (Hardie, 2002) are a necessary but no longer sufficient condition to secure producers with sufficient resources, creative freedom, access to the right set of skills and knowledge, and infrastructure to succeed in their work. In a marketplace transformed by the digital lifestyle of audiences, and with such a vast choices of entertainment experiences available, documentary filmmakers need to innovate by creatively changing one or more dimensions of the business system to produce new value for viewers. Innovation, or the creation of substantial new value for the customer, becomes the key to future growth or even survival.

3. Business innovation in documentaries: a conceptual framework

¹ The source is “The Documentary Market Worldwide” produced for RAI by Vista Advisers in 2001, where the global market for documentary programming broadcast has been estimated at 400 million Dollars.

The central question of this paper is how business innovation can provide growth opportunities to documentary producers, with special reference to business innovation that exploits production for digital and interactive media, and on-demand and multiplatform consumption of digital content. To answer this question, we need to understand how innovation creates value for specific kinds of viewers, such as people who turn their living rooms into mini-theatres, people who are passionate about social, political, or environmental causes, people who wish to watch short factual video programs while commuting to work, or people who might consume documentaries in not-for-profit educational situations. What are the key audience segments for documentary film? How to reach them? What are the steps in the buying process and what are the elements of an informative and entertaining experience when purchasing and viewing documentaries? Where are the bottlenecks in performing online transactions? What kinds of strategies are feasible for independent documentary producers to build new revenue streams? What services can be offered around the digital production and distribution of documentary film? What information can be provided to help consumers make decisions about which documentaries they will choose to watch? What are the features, the look and feel elements of websites that offer an appealing, entertaining experience during transactions and related interactions with visitors? What technologies, digital content formats, hardware and software solutions for video production and distribution are proven and work with the existing communication infrastructure?

In this paper we investigate ways to nurture new customer segments and new value propositions for viewers of documentaries. We adopt a comprehensive perspective on the documentary viewing experience by considering not only the moment when audiences are watching a documentary film, but the complete set of interactions that take place between the consumers and the providers of documentaries throughout the transaction cycle. By transaction cycle we mean the process of communication between consumer and service provider before the transaction, the enablement of the transaction itself, and the possible complementary services that surround the transaction and the post-transaction, services that consumers may appreciate. Therefore, we do not focus primarily on innovation in documentary content, style, and form. Instead, we look at innovation in regards to business models and practices that lead to and facilitate transactions. We have employed the “innovation radar” (Sawhney, Walcott, and Arroniz, 2006) as a conceptual framework for organizing our enquiry into documentary filmmaking and the ways it creates value for the documentary viewers. The innovation radar framework was developed to explain patterns of business innovation in global corporations and large private firms that have complex activities, including R&D. We explore its applicability to small to medium-sized firms in cultural industries - documentary film production firms in particular.

The “innovation radar” suggests twelve different dimensions of innovation and value creation, grouped under four “business anchors:” offerings, customers, processes, and presence (Sawhney, Wolcott, and Arroniz, 2006: 77):

1. *Offerings* include the firm's goods, services, and brands, as well as the set of common components, assembly methods, and technologies that can be used to create a portfolio of products and solutions that solve customer problems;
2. *Customers* refers to buyers, their needs and what they value, their experiences created while interacting with a company at all moments, and the mechanisms a firm uses to recapture the value it creates with its offering (e.g. revenue stream, pricing);
3. *Processes* refers to business activities that are used to conduct internal operations and to move goods, services, and information along the supply chain, activities conducted by employees in the firm's organization, or by outside partners; and
4. Points of *Presence* consist of firm's channels of distribution, including the business network that connects with the buyers, and the places where the firm's offerings can be bought or used by those who consume goods, services, or information.

With this conceptual framework we address the significant lack of relevant literature about innovation in creative or "experience" industries. In the remainder of the paper we suggest ways in which business innovation can be adopted, or is presently being used, to create and deliver value for documentary audiences. We follow the "innovation radar" framework and focus on the documentary film offered as an experience good, the search for understanding about audiences, and production and distribution processes based on new media business practices and models.

4. Offerings: documentaries as an experience good

Innovation in documentaries has mainly involved stylistic innovation, often in response to new media technologies (Hight 2008). Deliberate business model innovation in documentaries is secondary. Now documentaries are transitioning toward digital production, delivery, and presentation formats, opening up opportunities for business model innovation. The challenge is to create value for audiences and address their increased appetite for authenticity and "serious" entertainment by offering configurations of goods and services that include digital, interactive, and multiplatform solutions.

The documentary film originated in cinema, became established in television, and was revitalized as feature film in theatrical releases. New kinds of documentaries are now appearing; they can be "epic" and "cinematic", and therefore more appealing to a wider audience. Some have garnered critical acclaim and achieved commercial success through theatrical distribution. Such documentary film can be marketed as an entertainment product to consumers looking for entertainment experiences:

Theatrical release drives DVD sales, and increasingly people are choosing documentaries for screenings with friends and family. This expectation will probably inspire more filmmakers to discover highly entertaining themes and subjects for documentaries. (Aufderheide, 2005: 26)

The term “documentary” was coined by John Grierson in 1926, when he referred to the film *Moana*, produced by the American John Flaherty, as having a “documentary value” (Kilborn and Izod, 1997: 12). For Peter Steven (1993) the documentary is about “films and tapes that most viewers recognize as being based largely on footage of actual persons and events: works preoccupied with the actually existing world”. Hogarth (2006) suggests that documentary’s definition evolved from traditional views as factual film and later on as public service, to the “televisualised” documentary. Kilborn and Izod (1997) also acknowledge the evolution of the genre and therefore of its definitions, due to new characteristics of documentaries that add to the attributes of the “documentary artifact”. Consequently the term documentary “has become a portmanteau word with multiple points of reference” (Kilborn and Izod, 1997: 13). Documentaries can be called reality cinema, real life dramas, reportages, factual programmes, or shockumentaries, depending on the source and the many possible approaches to the topic (Hardie, 2002). Parodies and satire in the form of documentaries are mockumentaries. Documentaries have also become a commodity in a global market, generating “mutants” such as reality television. Many networks are trying to define the genre as broadly as possible to include some of their reality fare. Documentarians need to remember that commercial entertainment means profit pressure, which in the past has “lowered standards in news production and raised the ante for shock, sex, and violence in mainstream television and film” (Aufderheide, 2005: 26).

Storytelling, craft, and aesthetic vision are still essential to a well-made documentary, even when the intention of the director is political. Much innovation in documentary involves content, style, and form, themes that fall outside the scope of this paper. Various definitions of ‘documentary’ retain the distinction between fiction and non-fiction filmmaking, the suggestion about specific kind of conventions on how information and evidence are gathered and incorporated in programming, or the stipulation that documentary be serious, sober, and deserving of audience attention (Kilborn and Izod, 1997: 14)². A global approach to documentaries should involve a “flexible definition of documentary to suit the social, cultural, economic, and technological circumstance in which it now operates” (Hogarth, 2006:14). Documentarians who experiment with these and who aspire to commercial success are, or should be, aware of the need for “artful entertainment”, a high-end market developing for the documentary genre (Aufderheide, 2005).

Documentary film, as product, is in the same economic category as movies, music, publishing, video games, or software; they are all experience goods with important commonalities (Chellappa and Shivendu, 2005; Lobbecke and Falkenberg, 2002; Neelamegham and Dipak, 1999):

- 1) the business models (and the value chain) for these products are transforming due to ongoing technological changes, as well as due to the dramatic changes in audiences

² It is an ongoing and perhaps insurmountable challenge to clearly distinguish documentaries from fiction (see Plantinga, 2005). Digital technologies and the features they enable – interactivity, virtuality, immersion, personalization, etc. – will not make this task any easier.

lifestyle and consumption of entertainment; 2) they are in transition from physical to digital formats, and once digitized would have negligible marginal cost of production; 3) some product information is bundled with the product itself and is revealed only upon consumption; and 4) they are subjected to a particularly disturbing trend of piracy due to increasing ease of duplication and availability of illegal copies (Chellappa and Shivendu, 2005: 400-413).

For experience goods, several new technologies and platforms are now being tested to produce solutions for digital lifestyles and the changing expectations and behaviour of the consuming public. The “interactive narrative” is one of these: “a time-based representation of character and action in which a reader can affect, choose or change the plot” (Meadows, 2003). Ben-Shaul (2004) deals with the “narrative interactive cinema”, an area of research and tool development, of intense experimentation at the intersection of creativity and technology. When interactivity is provided the right way, it may offer superior consumer experience, and good experiences can be entertaining. Enchantment with technology, i.e. “being carried away by the power behind technology” and having a positive user experience with the technology (McCarthy et al., 2006), may be enhanced through “wearable cinema” (Sparacino, 2004) and the “museum wearable” (Sparacino, 2008):

The museum wearable is a wearable computer which orchestrates an audiovisual narration as a function of the visitor’s interests gathered from his/her physical path in the museum and length of stops. It offers a new type of entertaining and informative museum experience, more similar to mobile immersive cinema than to the traditional museum experience (Sparacino, 2008: 320).

This is an innovative solution to display documentaries during a visit to a museum exhibition, in the context of “narrative spaces” (Sparacino, 2008), or “mediascapes” that creates new user experience while walking through the physical world and triggering digital media which has been situated in that place for a particular reason by the mediascape designer (Reid et al., 2005).

3D documentary is another platform where several technologies are assembled to enhance the audience’s experience and to enchant. Cook and Wang (2004) suggest how technology can enhance the viewing experience in both conventional theatre and home cinema. They bring into the discussion 3D computer graphic imagery, perceptual simulations, networking environments and storage technology, memory cards like those in digital cameras to replace DVDs and DVD-Rs, and portable devices like laptop and PDAs with large capacity and fast-access storage that are able to store feature films. At the extreme, virtual reality (VR) provides high media richness and interactivity. Media richness has to do with the quality of the content offered through sensory channels, and the number of these channels that are stimulated (e.g. 3D image versus 2D static image). Interactivity has to do with the degree to which users can manipulate the form and content of a mediated environment in real time. VR offers a high level of control over computer-mediated environments, both in terms of user abilities to adjust the information according to their individual interests and concerns, and, in general, their

ability to be active, rather than passive, in their engagement with the information. Ultimately, through high media richness and interactivity, the audience can have the perceptual illusion of being present and highly engaged in a mediated environment, immersed or involved with the content presented, while they are in reality physically present in another place (Suh and Lee, 2005).

High-speed Internet is a platform where audiences expect enhanced interactivity and increased control of what they see, do, or buy. Choudrie and Dwivedi (2006) discuss adoption and use of broadband at the household level, addressing demographics, attitudes, and control factors. Their research suggests that entertainment is a hedonic factor that has a positive impact on broadband adoption and use. When the right hardware and software infrastructure is in place, the interactions occurring before, during, and after commercial exchanges can make use of innovative online services. Consumer behaviour and online impulse purchases for both informational and recreational products (CDs, DVDs, books) can be influenced by stimuli such as images, banner, advertisements, price, and special offers, or by a more hedonic element, a “good mood” (Madhavaram and Laverie, 2004). The Virtual Direct Experience (VDE) model is another approach that can be tested to stimulate goods/services consumption in an online environment for “experiential goods” (Griffith and Qimei, 2004). Finally, offline and online services such as film expert reviews (Neelamegham and Jain, 1999; Reinstein and Snyderz, 2005) and product recommendation agents (Xiao and Benbasat, 2007) can contribute to a positive experience and outcome of the transaction process.

In summary, new technological capabilities are being developed to produce, promote and deliver content in profitable ways, and they may serve to strengthen documentary filmmakers’ position in the marketplace as they allow access to previously untapped audiences (DOC, 2006). These are appealing avenues that may be explored for documentaries in the future, although they need to be approached in realistic terms for now. Commercial applications are currently hard to find even for feature films, television programs or music, products that are much better established than documentaries and that often have sufficient financial backing to sustain market experimentation. Nevertheless, several potential ways for documentary film to offer “artful” or “serious” entertainment through digital, interactive, and multiplatform solutions are emerging.

5. Customers: the search for understanding about audiences

The search for innovation should begin with the buyer’s needs and wants, with what individuals or organizations value in the documentary genre. There is no point talking about new and innovative configurations of products and services, about innovation along other dimensions such as “presence” or “processes”, if (as a panel of experts concluded at the Edinburgh International Film Festival in 2000) the characteristics of the documentary audiences are not known. Insiders in the documentary community agree that

“we have no idea who loves documentaries and why these people are coming to cinema, what they are looking for and what do they get from it”, says Kees Ryninks, Documentary Officer at Dutch Film Fund (Hardie, 2002: 16).

Producers and distributors of documentaries can nurture an audience that is ready to be entertained and informed with the support of digital and interactive media, and on-demand and multiplatform communication technologies. The challenge is to learn about changes in expectations, lifestyle and behaviour, and better understand who the audiences are and what they value.

People place high value on enjoyable and satisfying experiences, and expect such experiences when they act as consumers and interact with a business or any other organization. Having a positive experience goes beyond the consumption of the particular product/service, and extends to the interactions taking place before and after consumption. Concepts such as “consumer experience”, “transaction cycle”, and “buyer behaviour” are established in businesses literature and practices, especially in work around marketing, customer relationship management, and customer service (Swift, 2001; Seybold, 1998, 2001). They can help to describe the purchase and consumption of cultural goods (e.g. film, music) and can offer new insights about innovative configurations of goods, services, and information to offer.

Audience perspectives on screen documentary remain significantly under-researched (Austin, 2005). He suggested a series of “key vectors of inquiry”, such as: generic assumptions about documentary; issues of veracity and trust; distinctions between notions of the ‘authentic’ and the inauthentic, the ‘sincere’ and the contrived, the choice of film, cinema and, ultimately audience insights into the cultural tastes and practices of the ‘professional middle class’, including Francophilia (Austin, 2005: 1). To date, few of the numerous reports and scholarly papers produced by industry and professional associations, consultants, government agencies, and researchers provide actionable information, relevant knowledge, and useful understanding of documentary audiences and their experiences. Most available information takes the form of audience measurement, especially demographic information:

most of what we know about filmgoers falls in the category of demographic information. Little has been done to explore who these people are in a more behavioral way. There is extensive research on audiences for the traditional arts such as symphony, opera, fine arts, ballet, and theatre. Film audiences have been a neglected area of research. Research for the art film audience has received even less attention (Watson, 2006: 326).

Only a few studies have produced original, qualitative research on documentary audiences. For example Docuzone, commissioned by Kees Ryninks, Documentary Officer at Dutch Film Fund, and Docspace, undertaken in 2002 during the Sheffield Documentary Touring Festival. The latter survey revealed interesting trends about the festival’s audiences: filmgoers averaged around 30 years old, were watching less than the average amount of television, 95% had University level education, and they selected a film for its subject matter (Balfour, 2002; Hardie,

2002; 2007). These findings describe a population segment that is very active online, spending significant amounts of time for information gathering, entertainment, or education. It is good news that documentaries appeal to an under-served, theatre-going, and tech-savvy audience, a segment that independent producers can tap into with their creations (DOC, 2004).

Documentary filmmakers need an innovative mindset to identify such new markets, learn about their public, and then create new productions with appealing services.

The adoption of a digital lifestyle triggers the need for innovation in the way film producers, movie studios, record labels, broadcasters, and distributors create and distribute products and services to their audiences. Documentary producers can therefore look into the lessons learned by the record labels and music distributors and retailers. For music websites, digital and interactive media and multiplatform communication technologies offer new ways to acquire information about consumers and products, to collect detailed user information, and ultimately to make targeted offers to users. Help is also available from relevant research in film and television. Watson (2006) splits film audiences into four groups, based on a film preference scale: independent, crossover, mainstream and no film. These groups are compared on a number of quantitative measures such as “cultural capital”, “sensation seeking” and “communication behavior”. The study finds a difference among the groups

with respect to their level of “cultural capital”, with the independent group having higher cultural capital than each of the other groups in the study. This fact may begin to account for the differing viewing habits for the three groups when looking at the relationship of independent film to Hollywood film as that of High Art to Popular Art (Watson, 2006: 326).

McRae (2006) contributes another interesting piece of qualitative research, putting together the television viewing habits and the nature of the viewers’ desires shaped by the Internet. The results suggest that broadcast television “lacks a sense of control, interactivity, community, and truth.” IBM researchers segment TV audiences are segmented into “massive passive,” “gadgetiers,” and “cool kids,” suggesting a six-step strategy to deal with these categories of audiences and their changing demands for television programming (IBM, 2006). These are the kind of meaningful media and audience research studies that need to be replicated for documentaries.

Existing evidence indicates that the public is poised to accept and embrace new forms of content, delivered through new distribution channels, and supported by new business models (Hodder, 2006: 40). Online distribution, webcasting and podcasting, mobile broadcasting to connected audiences, or Web 3D, e-cinema and d-cinema are becoming the media of choice for consumption of audiovisual content. In addition, a consuming public who used to be a passive audience is now familiar with the use of the digital camera. People are increasingly comfortable with software applications and nonlinear editing, and there is enthusiasm to produce and contribute with original creations; user-generated content is widely available. Producers of documentary film can embrace paradigm shifts triggered by the dramatic changes in the way humans are consuming news or entertainment today. There is no other way but to

acknowledge, accept, and wisely capitalize on the impact of digital technologies, pervasive communication devices, ubiquitous networked interactions, and the “creative destruction” power of the Internet. The search for understanding about audiences should be an immediate priority for documentary stakeholders, and they need to adopt innovative media research practices to be able to identify and nurture the right public for documentary products and services.

6. Processes: new media practices and business models

Digitization of content is affecting the way documentary film is being made. Post-production plays a central role in documentary production. Versioning impacts the ways that content is created and packaged for future distribution and pricing (Barry, 2006; Chang, Lee and Lee, 2004; Cook and Wang, 2004). Digitization is also lowering the exhibition cost and changing distribution processes. Producers and distributors can monetize these opportunities, but the challenge is to establish the right business practices and assemble solutions for each market. Social media offer new possibilities to producers of documentaries to locate talent and partners, assemble them in unique project teams, and locate and communicate with viewers, creating superior consumer experiences during online and offline interactions.

Digitization creates opportunities for significant cost reductions during production. Digitization and Internet-based transmissions are reinforcing the multi-locational structure of motion picture production, allowing producer(s) and studio executives to more easily monitor the progress of, and intervene in shooting in distant locations. Dailies are now regularly digitized and sent back via the Internet (Currah, 2003). A film project can become “a real-time circuit of knowledge exchange, sustained by the creative inputs of firms in different places”. Independent producers across the world are now “exchanging scripts, advice, filmmaking techniques and work-in-progress via the Internet, which in turn is leading to the emergence of novel, transculturated films” (Currah, 2003). In a different area there is GLAMOUR, “an automatic cinematography system capable of organizing collections of annotated images and facts from a knowledge base to produce documentary films, about two minutes long each” (Callaway et al., 2005). GLAMOUR is implemented in Java (Text Planning), Lisp (Text Generation and Video Planning), C (Festival Lite TTS) and Macromedia Flash (Video Player) and runs on a 1 GHz Pentium. Such working practices not only illustrate the radical transformation of the value chain, but also translate into significant gains in time and monetary savings for the producers.

On another note, an often-discussed trend is the participation of audiences in the production of documentaries. Audiences spend less time passively consuming and “demand possibilities for interaction, to control their own programming, or act as producers of content” (Hoem, 2004). Several systems are being tested to support varying degrees of audience participation: dynamic browsing of story material, re-sequencing of existing footage, addition of textual comments, of disparate sounds, and incorporation of new content clips. Beattie (2008) experiments with the “narrative of the non-linear kind” and “near random access”; the aim is to enhance the

audience's experience. Computer-based media induce interactivity, involve clicking icons, choosing links, creating pathways through the website. Consequently, the sequence and duration of images is determined at the time of presentation rather than fixed in the production process by film-makers. Nardon, Pianesi and Zancanaro (2003) test flexible sequences of screenshots with an aim to increase the involvement of the audience (user) with the film during the consumption stage. Burke (2005) and several projects developed earlier by Davenport et al. (1993; 1997; 2004) and Zsombori et al. (2008) experimented with various ways of combining "traditional narrative with visual art and interactivity":

the goal of an interactive narrative is not to author the narrative, but to provide a context and an environment in which the narrative can be discovered or built by the readers of the story. In this way designers and authors of interactive narrative are far more like architects than writers (Meadows [2003] in Burke, 2005: 141).

Computing power, storage media, and database technologies are of use to design "flexible media", i.e. fresh ways for creative "conceiving, producing and delivering media" (Thomas and Lohse, 2004). The significant shift in paradigm is illustrated by the concept of "collective documentary" (Hoem, 2004; Kellilher, Mazalik and Davenport, 2003). A collective documentary should facilitate a collaborative environment for the creators and enhanced interactivity with audiences throughout the entire production cycle. Kellilher, Mazalik and Davenport (2003) suggest "a set of digital tools – a tangible storytelling system, an online video weblog, and a content annotation tool" to engage audiences in a collaborative storytelling. Videoblogs represent another example where the consumer of media are no longer passive viewers and are taking on the opportunity "to control their own programming or act as producers of content" (Davenport et al., 2004; Hoem, 2004). Blogs become

a non-fiction, media rich practice that provides a viable model for network specific documentary practice. In this model it is apparent that existing work flows of preproduction, production, exhibition and distribution are irrelevant. In networked writing and production, the distance between creating or doing the work and its dissemination is radically diminished. Additionally, the problem of distribution and exhibition shifts from one of where to exhibit, to one of ensuring sufficient bandwidth to support possible audiences. The idea of audience now changes. These documentary blogs would now be constituted by small parts that can be interconnected, generally by other practitioners (Miles, 2005: 69).

There is also the "mindful documentary" (Barry, 2004; Davenport et al., 2004), designed to support a richer story offered to viewers with the "help" of the "mindful", digital camera:

the camera uses commonsense knowledge and reasoning to expand annotations of captured video clips, suggests shots to the videographer and track story patterns in the information track of a video collection. The capture process leverages videographer's observations during capture to increase the narrative possibility of their video collections (Barry, 2004: 1).

Of interest are the business models supported by digitization and the transformations they bring to the value chain. Commercial distributors for online digital products, like their public and not-for-profit sector counterparts, continue to experiment with different models to generate revenues. For digital products created and distributed by cultural and heritage organizations, the current models include government funding (for operations and/or project funding); partnership arrangements (cost sharing and/or content access); corporate/private sponsorship; product sales and licence fees; and access/subscription fees (Wall Communications, 2002: 45). Universities that are digitizing and offering documentaries online for their students and faculty have adopted two approaches: either free access for private and educational use, or for a one-time fee (Carlson, 2005).

The commercial models currently available in the marketplace include subscription-based, content licensing, usage fee (e.g. transaction based usage charges), advertising, sponsorships, and online goods/services sales (Lobbecke and Falkenberg, 2002; Sauer, 2004; Wall Communications, 2002). For online distribution of documentaries, one common model is that the right holder will retain a percentage of what is left from the retail price, after the cost of the transaction has been deduced. Such commercial models may provide documentary producers a significant opportunity to tap into a growing market. For example, TV episodes on iTunes return \$1.44 to the rights holder, out of a \$1.99 retail price (Hodder, 2006). Other online documentary sites³, such as SnagFilms (www.snagfilms.com), HungryFlix (<http://www.hungryflix.com>), or B-Side (www.bside.com), offer a revenue split ranging from 50/50, to 60/40, to 70/30 respectively⁴. iTunes, Netflix, Zip.ca, Movielink, and Amazon's Unbox are more popular solutions that seem to work for both online distributors and right holders.

The audiences do not necessarily embrace such models on a level that would satisfy commercial expectations. In December 2007, Hewlett Packard discontinued technological support for its video download service, leading to Wal-Mart's decision to close its retail download service for movies, although keeping one for music (Hesseldahl, 2007). Telcos are aggressively positioning themselves in media distribution and increasing their share in content revenues up to 30%-50%, for example, by offering video on demand through their networks, or capitalizing on the widespread and extensive use of mobile phones with video features. Also, online portals like YouTube can get up to 100% of the revenues from monetization of the user generated content (Berman et al., 2007: 9).

For documentary producers, two innovative business models are worth testing. The YouTube model, based in user generated content and open distribution platforms, will continue to remain extremely popular and attract masses of viewers. Independent producers are already using this "platform aggregation" model (Berman et al., 2007) to test their productions, to promote their names, to attract viewers to other outlets where they hope to monetize their

³ See also the compilation by Kirsner, Scott, at: <http://www.scottkirsner.com/webvid/gettingpaid.htm> (retrieved October 10, 2008)

⁴ For example, 70/30 indicates that 70% of the revenues go to the right holder (e.g. film publisher, artist).

creations, and to widely distribute works that are not intended to be monetized. The second option is the “content hyper-syndication” model, where professionally produced films are available on open channels, without the need for dedicated access devices (Berman et al., 2007). This is a more selective and professional alternative in which filmmakers can agree on a revenue sharing model based on number of downloads, hits, or advertising clips inserted in the film. Broadcasters with strong online presence and public mandate to promote local productions seem to be open to such experiments (e.g. CBC in Canada and BBC, or Channel 4 in United Kingdom).

Finally, documentaries are moving along the value chain towards the audiences through rights management: acquisitions, pre-sales, and co-productions. Television used to be the traditional home for documentaries and continues to be the main distribution channel, so any transformation in the broadcasting sector impacts the ways docs are produced and distributed. TV broadcasting remains profitable, but television is moving from a broadcasting model to one shaped by interactivity with audiences, mobility, Internet protocols, and digital convergence (McRae, 2006). As a result, documentary filmmakers need to follow with great attention the establishment of new practices for management of intellectual property and rights trading in order to both stimulate and reward creativity and avoid alienating the audiences.

7. Presence: digitization and commercial distribution

Digitization is changing distribution, the ways audiences find documentaries. Documentary film is available in a range of markets through festivals, television, and theaters, and now enjoys commercial distribution through DVD packaging and releases, or via pay per view, video on demand, satellite, and d-cinema projections:

Documentarians have long seen their major mass-media outlet in TV, and have usually languished in the public eye thereafter. For many years, documentarians have depended on the non theatrical aftermarket, in which educators and librarians pay high, institutional prices for videos. Those videos might be seen by students but would rarely be sought out by film buffs. Suddenly, film lovers are buying and renting docs, and they expect them to be packaged like feature-length fiction films. Sales of documentaries on DVD tripled between 2001 and 2004, according to Docurama, to nearly \$4 million. Netflix, says Vice President Ted Sarandos, actually blundered into an entire subculture of documentary renters, and had to play catch-up to serve their customers' interests (Aufderheide, 2005; 26).

Traditional outlets are film festivals, specialist screenings, permanent screening venues, theatres and community cinemas, archives, university circuits, and film circuits. Innovation does not imply abandoning these, but establishing new outlets and new business practices, to develop new solutions for each distribution channel and serve specific consumer markets. Digital and interactive media, and on-demand and multiplatform communication technologies facilitate the re-engineering of the value chain (Cook and Wang, 2004; Currah, 2003; Irwin,

2004; Silver and Alpert, 2003; Zhu, 2001). Digital movies can be delivered via broadband, video-on-demand (VOD), or over the Internet, and digital film delivery may displace physical films, videos and DVDs, thus threatening the long-term survival of video rental stores and other middle layers in the value chain (Zhu, 2001; Currah, 2003). Drivers for such transformations in motion pictures include: a) broadband Internet connection; b) digital file compression; c) streaming media; and d) encryption. These technologies allow video files to be digitized, stored and transmitted via digital networks and broadband.

Large scale use of broadband opens the door for fundamental change in business practices, especially in distribution, as video-on-demand over the Internet becomes possible (Silver and Alpert, 2003; Zhu, 2001). The disruptive power of VOD technology threatens Hollywood's theatre-based business model. In theatres audiences are passive consumers, but with VOD, the viewer can recover control and enjoy the convenience and comfort from home. One can choose from a database of movies located on a video server and have control over playing the movie. At home, movies can be watched on a PC while surfing or doing other computing work, or using the digital home theater technology and plasma-screen flat panel (Zhu, 2001). Hollywood currently uses theatrical releases as a marketing event and captures revenues from windowing. Box office success will positively impact revenues from subsequent release windows, typically in the following order: video rental stores, sell through videos, pay-per-view television, premium channels, and basic cable/network/syndicated television (Zhu, 2001: 275).

Chang, Lee and Lee (2004) propose a useful framework to think about innovation in promotion and distribution practices that can be adopted by documentary film, practices based on four economic properties of video products:

1. Video as experience good: practices would include preview/browsing (e.g. sampling, see Chellappa and Shivendu, 2005), reviews (e.g. user evaluations, see Xiao and Benbasat, 2007), and reputation (e.g. celebrity endorsement and critical reviews, see Reinstein and Snyderz, 2005);
2. Video enjoys returns to scale and non-rivalry: practices include price-quality discrimination (e.g. windowing, versioning, see Barry, 2006) and bundling (Chang, Lee and Lee, 2004).
3. Video is public/nonexcludable good: technological innovations (e.g. DRM technologies) and legal tactics (Peitz and Waelbroeck, 2005).
4. Video can exploit the interdependency of willingness to pay: practices include personalization (e.g. Amazon.com recommends books and music, can be used for VOD), and privilege (e.g. VIP special premieres before releasing the movie).

"E-" and "d-cinema" are innovations⁵ in distribution and projection that are quite suitable for documentary genre and its specific audience (Vickery and Hawkins, 2007; Husak, 2004; Irwin,

⁵ E-cinema refers to the digital or electronic projection of films or events. It includes d-cinema, which refers to the digital projection of films or live broadcast of events at levels of visual resolution on par with 35 mm analog projection systems (DOC, 2004). What makes an "e-cinema" a better business model is that: (1) it eliminates the

2004; Silver and Alpert, 2003). Annual distribution costs for Hollywood, based on film as the medium, are estimated at \$1.2 billion. Digital delivery will mean savings of \$2,000 on every print of the film, plus the shipping costs to the theaters of around \$300 for each individual print; all together around \$700 to \$800 million, or around \$1 billion (Culkin & Randle, 2003; Silver and Alpert, 2003). This is yet another example of a technological innovation within the feature film value chain that will cause players at every stage of the production and distribution to re-examine their business models (DOC, 2004). To the extent that shooting, post-production, distribution, and transmission will be done digitally, the “e/d-cinema” allows then a film to be distributed to theatres by physical DVD, satellite, or other broadband data transmission.

With broadband transmission to the cinemas, a filmmaker can do a personal introduction to the film and even participate in a question and answer session with audiences after the screening (DOC, 2004: 34).

Husak (2004) predicts the emergence of two businesses within the theatrical community: “traditional feature film release is known as Digital Cinema while non-traditional content is known as Alternative Content”. The “d-cinema” business model sounds compelling, but it still requires a significant investment in the installation of the digital projector. Despite these costs, worldwide screens equipped with d-cinema grade totaled 2,866 at year’s end in 2006. D-cinema screens however, make up less than 3% of the estimated 100,000 targeted for conversion worldwide, thus, a full commercial d-cinema rollout is still some time away (DOC, 2007: 60).

Another type of outlet that is going through radical transformation is the archive. In a race against time, holders of content that can be digitized, including documentary film archives, are spending enormous resources to have their valuable assets available to the public online and in digital format. The challenges are significant: the pressure to move fast because the threat of deterioration as time goes by, the huge volumes of content of all types in various formats, lack of standards for digitization and for content organization and management (Carlson, 2005). Copyright restrictions also apply. The experience of setting up the online video archive at British Pathé is an excellent example of the shifts in practices for digital documentaries and the right starting point for those who need to learn how to plan and manage projects that include

cost of enlarging a documentary from video or 16 mm to 35 mm; (2) it reduces the cost of creating prints; and (3) it allows a film to benefit from simultaneous widespread promotion). E-Cinema allows the filmmaker to record the final print to DVD, computer file, or magnetic tape. This process eliminates the cost of converting the film from video or 16 mm to 35 mm; this can save as much as \$50,000. The process also saves the \$2,000 to \$2,500 cost of creating each print, and the \$500 to \$750 cost of shipping each print. E-Cinema also facilitates short-run films because it does not involve the time required (approximately one week) to set up a 35 mm film in an analog theatre projector (that includes also conversion from 16 to 35 mm, making and duplicating prints and shipping) (DOC, 2004; 33).

film transfer on digital support, choosing the digital formats to satisfy archival quality and Internet preview, designing the archive to maximise the workflow efficiency, and solve all details of content distribution via the website and offers (Blake, 2005: 201).

For documentary production and distribution, the examples presented here are of major interest because they suggest multiple potential opportunities for growth. Perhaps the most important lesson is that digital, interactive, and on-demand, multiplatform solutions together with the right set of business practices to develop and exploit such solutions can offer an unprecedented latitude to “indie” producers. Not only would they be able to distribute their films over the Internet to a global audience, but they can possibly capture opportunities from activities farther down the value chain that today are captured by others – in distribution (video, cable, TV) and in retail (merchandising, music soundtracks, books, computer games, theme parks) (Currah, 2003).

8. Concluding comments

Digital video media is an unsettled and volatile business area, with many unproven business models and many experimental initiatives currently underway. The scope for innovation in business practices and business models in documentary film seems to be considerable, but this sort of innovation has not yet become widespread in the documentary production industry. Documentary filmmaking practices have embraced digital content production and editing. Documentary filmmakers already use digital shooting and the related technologies for the production stage (e.g. digital camera, PC and professional editing software). Distribution is the area where innovation will occur next in documentaries. Online distribution, D-cinema and DVD packaging and releases offer promising prospects for wider distribution and additional revenues for documentary producers. However, with very few exceptions, the Internet and the Web are not currently priorities for independent producers of documentary film.

Documentary film still relies on traditional business models based on licence fees and government support. Online solutions with clear commercial viability are currently unavailable for documentary producers and more broadly for other producers of digital video products. However, documentary producers can learn from experiments in business models and business practices in the music and motion picture industry. Online distribution and d-cinema will be easily adapted for documentary genre and adopted by producers and distributors, and new partnerships (networks) to distribute content to end consumers will include documentary productions and distributors. Learning about audiences for documentaries should be a priority.

Future research needs to assess firm-level capabilities that support innovation and growth in independent documentary producers and other small media production firms (Davis, Vladica and Berkowitz, 2008). It is necessary to understand how such business capabilities are acquired or developed by growth-oriented, independent documentary production firms. We will continue this line of work to assess the adoption and use of business innovation and new media

practices among documentary production firms and producers of other genres in the Canadian context.

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