Evaluating Interactive Documentaries:
Audience, Impact and Innovation in Public Interest Media

by

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University of Southern California, 2013

Submitted to the Program in Comparative Media Studies/Writing
in partial fulfillment of the requirements for the degree of

Master of Science in Comparative Media Studies
at the
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

September 2015

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Abstract

Public interest media organizations are increasingly interested in experimenting with interactive and participatory approaches to documentary storytelling enabled by digital technologies. However, due to the experimental nature of these interactive documentaries, it is not yet clear whether the more active user engagements they require translate into outcomes like sustained attention, greater narrative comprehension, enhanced learning, empathy or civic engagement – never mind larger societal impacts like improved public discourse, behavior change or policy change. The shifting definitions and measures of complex, multi-dimensional concepts like "engagement" and "impact" is a challenge for public interest media organizations migrating to digital platforms – particularly at a time when audience activities have become far more transparent and funders place greater emphasis on "data-driven" impact measurement.

This thesis explores the "theories of change" that inform institutional investments in documentary and examines how three public interest media organizations – the National Film Board of Canada, POV and the *New York Times* – are approaching interactive documentary production, attempting to define what constitutes success or impact – and how to measure it. I argue that we need new theories of change and evaluation frameworks that expand definitions of "impact" and "engagement," balancing public service mission with the strategic goals of audience development and the circuitous processes of artistic and technological innovation. This means looking beyond quantitative mass media era metrics, which fail to account for important qualitative dimensions of the user experience. I propose a new set of qualitative and quantitative measures that might better reflect the social and artistic aspirations of the interactive documentary, test assumptions in ways that can inform project design, and embrace the potentials of technology to transform the methods, ethics and process of documentary storytelling in the digital age.

Thesis Supervisors
William Uricchio, Professor, Comparative Media Studies
Ethan Zuckerman, Director, Center for Civic Media

Acknowledgements

I am profoundly grateful to have had the opportunity to work on this thesis with the mentorship, guidance and support of two brilliant advisors, William Uricchio and Ethan Zuckerman, who consistently challenged me to ask deeper and better questions and craft more compelling, forceful arguments.

Thank you to the many practitioners I interviewed at the National Film Board of Canada, POV, the *New York Times* and elsewhere, whose insights helped give form and clarity to my understanding of a field that is still in formation itself. I'm particularly indebted to Kat Cizek, Adnaan Wasey and Tom Perlmutter for generously sharing their time, and to Sarah Wolozin for creating countless opportunities to connect with artists and scholars at the forefront of the field.

There are so many others who provided the support – in big ways and small – that allowed me to begin this journey. I only have space to name a few, but I want to thank Beth Murphy and Kevin Belli for my first adventures in documentary filmmaking, AnnieLaurie Erickson for your strength and support, Jesse Shapins for your enthusiasm and advice, and the Fulbright Program and Michael Renov for opening the doors to continuing my education at times when I worried they might be closed.

The most rich and rewarding part of my MIT experience was undoubtedly becoming part of a diverse community of creative and critical thinkers. The friendship and camaraderie I found in the OpenDocLab Fellows and in my fellow 15ers – Heather, Chelsea, Desi, Liam, Suruchi, Ainsley, Erik, Jesse and Yu – constantly inspired me and kept me going through the many ups and downs of graduate school.

By the same token, I am grateful to my dear friends and colleagues Ben Fowlie and Caroline von Kuhn for giving me the space and flexibility to continue doing a job that I love while juggling the responsibilities of school.

Thank you to my parents, who have always given me the freedom to pursue my dreams and ambitions, even when they have taken me in unconventional directions.

And most of all, thank you to Jess. Your sense of humor, your critical insights, your unfailing optimism and your fierce love sustained me through every moment of self-doubt and allowed me to see this process as an opportunity to find my voice and become a better version of myself. I can't thank you enough for being my person.

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INTRODUCTION:
Documentary in the Digital Age

"Documentary is a clumsy term, but let it stand."
–John Grierson, "First Principles of Documentary" (1933)

"The internet *is* a documentary."
–Kat Cizek, Webby acceptance speech (2008)

Nearly nine decades have passed since John Grierson famously coined the term "documentary" in his 1926 review of Robert Flaherty's nonfiction film *Moana*. As a mode or genre of film, the word remains as clumsy and imprecise today as it was in Grierson's time, a fact borne out by the endless critical debates over documentary's claim to represent "reality" or "truth."[1] Yet the term has come to signify not just a genre or mode of filmmaking but also a century-old *tradition* of socially engaged storytelling, produced and distributed across a wide variety of media – from cinema and television screens to print, radio and gallery walls. Borrowing from the artistic language of cinema, the investigative practices of journalism and advertisers' strategies for achieving social influence, documentary has always been a hybrid, alternative media form with a wide range of aesthetic and rhetorical functions.[2] Although it has rarely found large audiences, financial profit or a stable institutional home, the documentary tradition has persisted for nearly a century, sustained by generations of practitioners, funders, critics and audiences

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[1] Winston, *Claiming the Real*.
[2] Renov, *Theorizing Documentary*, 21.

who believe in its distinct social and artistic value. For Grierson and generations of filmmakers who have joined the tradition he helped to establish, documentary has represented an attempt to expand the artistic boundaries and political possibilities of cinema by recording lived experience, creatively shaping it into narrative form, and offering perspectives on the world that help audiences become more informed, engaged and compassionate citizens.

The fluidity of the documentary form has become particularly evident in an era defined by tectonic shifts in the media environment. During the past two decades, networked digital media technologies – from the Web to social media to smartphones – have enabled an exponential growth in the amount of nonfiction media content being produced and the number of channels through which it is distributed. The rise of a "participatory culture"[3] has fundamentally transformed the relationships between professional media producers and their audiences, a distinction that some have argued has lost some of its relevance as media users play increasingly active roles in both producing and circulating content. Among legacy media organizations, this fragmentation of the media landscape and growing "audience autonomy"[4] has produced uncertainty about the ability of their productions to attract and influence digital audiences in a competitive marketplace where attention is an increasingly scarce resource.[5] Organizations committed to public service, which have typically provided the institutional support for much

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[3] Clinton et al., "Confronting the Challenges of Participatory Culture."
[4] Napoli, *Audience Evolution*.
[5] Simon, "Designing Organizations for an Information-Rich World"; Davenport and Beck, *The Attention Economy*; Webster, *The Marketplace of Attention: How Audiences Take Shape in a Digital Age*.

documentary production, face the added challenge of proving the social value of

their work in a vast and fragmented media landscape no longer defined by the

"spectrum scarcity" that led to the public interest standard in the early days of

commercial broadcasting.[6]

Against this backdrop, we have witnessed the emergence of a new generation

of documentaries that attempt to take advantage of this transformed media

environment – and the networked digital technologies that underpin it – to present

nonfiction stories in more interactive, participatory, nonlinear and immersive ways.

Though these experimental forms have historical precedents in the hypercard

stacks and multimedia CD-ROMs of the 1990s, they have become both common

enough and distinct enough in recent years to warrant their own genre: the

"interactive documentary." This nebulous term is now used to describe a wide

variety of experimental media projects that identify with the label "documentary"

but bear little resemblance to conventional forms: multimedia websites, mobile

apps, documentary games, virtual reality films, interactive installations and multi-

platform "story worlds" – to name a few.

Aston and Gaudenzi define the interactive documentary broadly as "any

project that starts with the intention to document the 'real' and that uses digital

interactive technology to realize this intention."[7] Their definition foregrounds digital

technologies as a key differentiator between interactive documentaries and their

linear antecedents. Indeed, the majority of interactive documentaries are made

possible by what Janet Murray described as the four "unique properties of digital

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[6] "Charting the Digital Broadcasting Future."
[7] Aston and Gaudenzi, "Interactive Documentary," 125.

media environments" – they are innately *procedural*, *participatory*, *spatial* and *encyclopedic*.[8] Murray predicted that these computational affordances of digital media platforms would enable radically different storytelling forms to be invented by a "new kind of storyteller, one who is half hacker, half bard."[9] Though Murray spent much of her time discussing the possibilities of interactive fiction, it has been the traditions of nonfiction storytelling – including both documentary and journalism – that have been among the first to grapple with the narrative potentials of networked digital media.

Much like other media forms in their infancy, the collective expectations facing the interactive documentary genre has been shaped by an almost-utopian sense of the promise of new media technologies. Over the past decade, a period of time marked by the exhilaration and anxiety of technological disruptions in the media landscape, new storytelling forms made possible by these technologies have been the subject of a growing number of conferences, museum exhibits and film festival programs dedicated to exploring the "future of storytelling." Tom Perlmutter, former commissioner of the National Film Board of Canada, writes that interactive documentaries should not be considered merely an extension of linear filmmaking, but rather they represent the "birth of an entirely new art form, the first such in over a century."[10]

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[8] Murray, *Hamlet on the Holodeck*, 71.
[9] Ibid., 9.
[10] Perlmutter, "The Interactive Documentary."

By giving voice and greater agency to the "people formerly known as audiences"[11] and the "people formerly known as subjects,"[12] interactive documentaries are seen as emancipating storytellers and audiences alike from some of the limitations inherent to linear formats. Instead of paring down raw material into a single, static media text – leaving countless hours on the "editing room floor" – documentarians can now design open-ended databases and dynamic interfaces that allows users to freely explore these archives. Rather than act as the sole arbiter of a social issue, they can open up a participatory process that invites subjects and communities to shape their own narrative representations. Instead of representing the world within a rectangular two-dimensional frame, they can tell stories that unfold in immersive 360-degree virtual reality environments. As each successive generation of digital technologies becomes more integrated into our bodies and our everyday experience, Perlmutter argues, interactive documentary provides an artistic response to a "pronounced epistemological transformation of how we perceive and understand the world."[13]

Such attempts to reconfigure the conventional relationships between documentary producer, subject and audience long predate technologies like social media networks and smartphones, as evidenced by participatory initiatives like the National Film Board's *Challenge for Change* (which will be explored further in Chapter 1) and Glorianna Davenport's groundbreaking interactive media

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[11] Rosen, *The People Formerly Known as the Audience*.
[12] "The New Digital Storytelling Series."
[13] Perlmutter, "The Interactive Documentary."

experiments at the MIT Media Lab in the 1980s.[14] Only within the past five years, however, have public interest media organizations known for producing linear documentary films begun to invest seriously in the production of interactive documentaries. Rather than approach the Web simply as a platform for marketing and distributing what are now increasingly described as "traditional" films, digital-oriented producers working within these institutional contexts are experimenting with the creative and technological possibilities of interactivity and participation, often as strategies for developing audiences on digital platforms.

It is often assumed that these strategies will encourage audiences to become more deeply "engaged" with documentary stories and ultimately generate greater social impact. However, the field still lacks basic understanding about whether the more active user engagements required by interactive documentaries translate into desired outcomes like sustained attention, greater narrative comprehension, enhanced learning, empathy or civic engagement – never mind larger societal impacts like improved public discourse, behavior change or policy change. Some critics have even questioned the ability of interactive documentaries to attract a significant audience in the first place. A 2013 article in the independent film publication *Indiewire* summed up this skepticism with the provocative headline: "Transmedia Documentaries are Sexy, But Who's Watching?"[15]

Though linear documentary films have rarely found mass audiences, distribution channels like public television still predictably deliver audiences that

[14] Mackay and Davenport, "Virtual Video Editing in Interactive Multimedia Applications."
[15] Kaufman, "Transmedia Documentaries Are Sexy, But Who's Watching?".

can reach into the low millions. On the other hand, according to an informal survey

conducted by Storycode, audiences for immersive media projects typically number

in the 10-20,000 range, while more well-financed productions with marketing

budgets may reach 100,000 to 1 million people. While these are not insignificant

audiences, perhaps more troubling for some documentary producers and their

institutional backers is Storycode's finding that users spend on average 5 minutes

with these projects and consume only 20% of available content within them.

Interactive documentaries not only lack broadcast television's reliable access

to audiences, but they also introduce unfamiliar conventions of user experience. In

her discussion of this experiential dimension of interactive documentaries, Kate

Nash articulates the skepticism surrounding audience engagement with these novel

forms:

> It is widely assumed for instance, that interactive documentary
> audiences are more active and engaged than film and television
> documentary audiences. While widely proclaimed, such a view has no
> empirical foundation. It is just as likely that the interactive experience
> - the need to click, decide or move - might detract from narrative
> engagement.[16]

Therefore, from the perspective of public interest media organizations and funders

allocating scarce resources to interactive documentary production in a competitive

"attention economy,"[17] the important question is not only *who* is viewing interactive

documentaries, but *how* are users engaging with these experimental projects and

what impacts these new engagements will have.

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[16] Nash, Hight, and Summerhayes, *New Documentary Ecologies*, 57.
[17] Davenport and Beck, *The Attention Economy*.

Although the Internet is purported to be "the most precisely measurable medium in history,"[18] these questions are surprisingly difficult to answer. Both the commercial and public interest media sectors share a desire to reach and influence audiences, whether they are selling a product or a social issue. In the early days of broadcast, the need to better understand this influence led to the development of "metrics regimes," such as the Nielsen rating, which treated exposure to a piece of media as an assumed proxy for impact. Digital media technologies have complicated these assumptions by making audience activities vastly more transparent, giving rise to more sophisticated "audience information systems" in which a confusing array of "engagement" metrics that monitor variables like social sharing and comments become important indicators (if not always reliable predictors) of value or impact.[19]

In contrast to commercial media industries, in which success can ultimately be defined by financial returns, organizations producing documentaries face the added challenge of convincing funders or executives that their productions deliver *social value* in addition to (or in some cases, instead of) economic value. Yet in the public interest media sector, the lack of shared definitions or standardized measures of multidimensional concepts like "engagement" and "impact" is still a challenge for organizations investing resources in interactive documentary production and trying to make the case for its social value.

This thesis will examine how three public interest media organizations – the National Film Board of Canada, POV, and the *New York Times* – are undergoing a

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[18] Graves, Kelly, and Gluck, "Confusion Online."
[19] Napoli, *Audience Evolution*, 8.

process of a digital adaptation, experimenting with the interactive documentary form while simultaneously attempting to define what constitutes success or impact – and how to measure it. Within each organization, I will explore how assumptions about the social value of interactive documentary, frameworks for understanding social impact, audience metrics and other indicators of success shape content strategy, project design and future investment in these innovative but still unfamiliar forms. With each case study, I will attempt to answer three basic research questions:

1. Why are organizations producing interactive documentaries?
2. How are they determining the success of these investments?
3. How are these metrics informing future investments in interactive production?

By addressing these questions, I hope to describe the emerging political economy of interactive documentary and speculate about how these forces are influencing both the aesthetic and social potentials of documentary on digital platforms.

In Chapter 1, I attempt to place contemporary developments in the interactive documentary field within an historical context by describing two broad "theories of change" that have shaped the institutional production and funding of documentaries at two different moments: the early 1930s, when John Grierson helped lay the institutional foundations for English-language documentary film by convincing the British government and corporations that it could be a tool for educating the masses and consolidating national identity; and the late 1960s, when a new generation of Leftist filmmakers embraced new media technologies like video

and 8mm film cameras as tools for decentralizing the means of documentary production and democratizing the medium of television.

The distinct "theories of change" that these cases illustrate are each embedded with a set of value assumptions – about the relationship between producer and audience, the potential "top down" or "bottom up" social impacts of documentary, and the creative applications of new media technologies – that represent cross currents shaping the development of the interactive documentary field today. With these theories in mind, I will review the recent spate of research on media impact assessment, exploring how ambiguous concepts like "engagement" and "impact" are defined by new frameworks and tools, as well as the prescriptions they offer for public interest media producers and the ongoing debates over their appropriateness. Finally, I will speculate about how these frameworks might guide public interest media organizations investing in innovative forms of storytelling like interactive documentaries.

Chapter 2 will look at the impetus behind the establishment of two interactive studios within the National Film Board of Canada (NFB), an organization that has become widely recognized as a leading innovator in digital storytelling. As a public producer funded entirely by the Canadian government, the NFB's mission emphasizes taking creative risks in areas of "market failure" by producing "public goods that enrich the country and provide cultural leadership."[20] As a result, the organization has been able to develop greater capacity for research and development in this space – as well as a greater tolerance for experimentation and

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[20] "NFB Strategic Plan 2008-2009 to 2012-2013."

failure – than most public interest media organizations. Using Katerina Cizek's participatory web documentaries *Filmmaker in Residence* and *Highrise* and other prominent interactive productions as case studies, I will explore how evolving – and sometimes divergent – ideas about audience engagement and impact have informed the NFB's digital strategy and how these impacts are evaluated.

Chapter 3 will examine American public television series POV, which has long used the web to engage audiences in dialogue around broadcasts of independently produced documentary films, but only recently began approaching it as a platform for standalone interactive productions. Both "engagement" and "impact" have long been central to POV's mission and the organization has a legacy of generating social value around documentary films by encouraging active public discourse through grassroots screening campaigns, educational distribution and ancillary content online. However, the organization has been slower than the NFB to build capacity for interactive productions that are not tied to its broadcasts, in part due to its more limited budget and a less developed ecosystem of support in the U.S. for independently produced interactive documentaries. Within this environment, the POV Digital department is taking incremental steps towards funding and co-producing more ambitious interactive documentaries, experimenting with a series of hackathons, hiring an in-house software developer and distributing a series of "interactive shorts." I will discuss how these early-stage efforts are being evaluated and how they are informing POV's digital strategy.

Chapter 4 will explore how interactive storytelling techniques are being adopted by the *New York Times*. In contrast to the National Film Board and POV, the *Times* is

a for-profit business driven by advertising and subscriptions, and as such its relationship to that audience and its process of digital innovation are shaped by the need for financial sustainability. The challenges of the company's digital transition were highlighted by its leaked Innovation Report, which emphasized developing "new ways to reach readers"[21] and better tools for interactive production, but also advocated for a cultural shift in the use of metrics and challenged the traditional separation of "church and state." Using two prominent interactive features as case studies, *Snow Fall* and *A Short History of the Highrise*, I will illustrate contrasts between institutional relationships to the interactive documentary audience in the public media and journalism sectors.

In the conclusion, I will discuss the limitations of using currently available audience metrics and frameworks for impact measurement as guides for institutional investment in nascent media forms like interactive documentaries. Both conventional digital analytics and the new wave of impact measurement tools paint an incomplete picture that tells us relatively little about the individual user's experience with these projects and how they fit into existing habits or digital media usage patterns. More research is needed to understand the psychological and emotional dimensions of interactivity in documentaries before we can draw strong conclusions about broader impacts like shifts in public discourse. Some other blind spots of current "metrics regimes" include more subtle dimensions of social change – like the long-term impacts of a participatory media making *process* rather than the final media *product* – as well as a variety of hard-to-measure institutional impacts,

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[21] "NYT Innovation Report 2014," 31.

such as innovations in artistic forms or organizational process. By acknowledging these alternative forms of success, we can better understand the social value of interactive documentaries, including both its current shortcomings and future potential.

Better methods for evaluating interactive documentaries are needed not so much to retrospectively measure the impact of specific projects and separate "successes" from "failures" – but to better understand the full spectrum of outcomes from experimentation with a new storytelling form, to test assumptions during the creative process, and ideally, to crystallize the social and artistic aspirations of the interactive documentary field. That said, it is important to acknowledge that our modes of engagement with digital media are constantly in flux. Patterns of interaction and participation that are challenging to users today may become the standard conventions of tomorrow. Public interest media organizations experimenting with interactive documentaries should embrace open, flexible frameworks and definitions for what constitutes impact, as well as methods and tools for measurement that are better suited to the evolving modes of active engagement required by interactive documentaries. Otherwise, there is a risk that interactive documentary practices with the greatest potential social impacts may not align with conventional metrics that privilege audience reach or narrow definitions of "engagement" – and therefore fail to find sustainable funding or audiences. In this sense, the domains of institutional production, funding and evaluation are crucial to shaping the language of documentary in the digital age.

CHAPTER 1
Theories of Change

The desire to use storytelling as an instrument of social change has long been one of the primary impulses in the documentary tradition.[22] By representing reality, many documentary makers also hope to influence it in a variety of ways. Documentaries may raise awareness or initiate debate about an important social issue, as *An Inconvenient Truth* did with climate change. They may attempt to shape public opinion, as Michael Moore does in films like *Fahrenheit 9/11*, or alter audience behaviors, as Morgan Spurlock attempted to do in *Supersize Me*. Or they may even pursue more concrete impacts like building social movements or changing public policy, as *The Invisible War* did when it helped change the military's sexual assault policies. These popular examples of social justice documentaries are not necessarily representative the full spectrum of documentaries produced today, and social change is by no means the only reason for making documentaries. As Renov's taxonomy of documentary's "rhetorical/aesthetic functions" outlines, filmmakers have long pursued documentary with a wide range of other motives, ranging from historical preservation to artistic expression.[23] Nevertheless, for the government agencies, foundations, nonprofits and corporate sponsors that have historically

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[22] Whiteman, "Out of the Theaters and into the Streets"; Aitken, *Film and Reform*; Lesage, "Feminist Documentary"; Waugh, *Show Us Life*; Winston, *Claiming the Real*; Zimmermann, *States of Emergency*.
[23] Renov, *Theorizing Documentary*, 21.

invested in the production and distribution of documentaries, the form's potential to produce various forms of "social impact" has been one of its key value propositions.

Though the word "impact" is now evoked with increasing frequency in public interest media, it can mean very different things within different institutional contexts and different traditions of nonfiction storytelling, such as documentary film or journalism. Broadly defined, it refers to "changes among individuals, groups, organizations, systems, and social or physical conditions"[24] that media productions may help advance. Generally these changes are assumed to be positive, generating some form of social value by "improving the well-being of individuals and communities across a wide range of dimensions that are central goals of most public interest media initiatives."[25] In this thesis, however, I will argue for a definition of impact that goes beyond the social, looking at the various ways that the process of making documentaries – particularly emerging genres of interactive documentary – can contribute to long-term processes of institutional transformation and the development of new artistic forms. These impacts have less to do with the capacities of media to influence the individual human subject or the larger public sphere, but they often represent important stepping stones for institutions transitioning from a relationship to audiences based on the paradigms of mass media to one defined by networked digital media.

Despite the long tradition of treating documentaries as a catalyst for social change, the extent to which they really influence their audiences, what form that influence takes, and how it can be measured remains a subject of ongoing research

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[24] Learning for Action, "Deepening Engagement for Lasting Impact," 29.
[25] Napoli, "Measuring Media Impact," 6.

and debate. To better understand how these questions might shape the development of the interactive documentary field, this chapter will examine two distinct "theories of change" that have shaped the documentary tradition. I will focus primarily on how institutional supporters have conceived and evaluated documentary's social impact, but also point out the ways in which experiments with the documentary form have had important long-term "institutional impacts."

First, I will explore the emergence of the British documentary movement of the 1930s, in which John Grierson and his colleagues helped lay the foundations for institutional funding of documentary films – still a nascent cinematic form that they promoted as a nationalist alternative to Hollywood and a vehicle for public education. Second, I will describe the radical experiments in the late 1960s and early 70s, in which a generation of young progressive filmmakers responded to a crisis of faith in political and cultural institutions by developing an alternative vision of a decentralized media system built around new technologies that allowed them to make films *with* people rather than *about* them.

Finally, I will describe how the unstable conditions in the current digital media environment have given rise to two strategic priorities for institutions producing documentaries and other forms of public interest media. On one hand, there is growing pressure to demonstrate the impact of social justice-themed documentary films and related outreach campaigns, but a lack of consensus about how to define and measure ambiguous concepts like "impact" and "engagement." On the other hand, there is a widespread pressure to experiment with the affordances of interactive, digital platforms for reaching and engaging audiences in new ways. I

conclude the chapter by assessing the strengths and limitations of existing "theories of change" and speculate about how impact measurement frameworks might guide public interest media organizations investing in innovative forms of storytelling like interactive documentaries.

Grierson's Pulpit

The English-language documentary tradition began, in many ways, with a theory. Its early development – and particularly its relationship to audiences – was fueled by an institutional desire to use media as a tool for shaping the public sphere. "The idea of documentary," wrote John Grierson in 1943, "came originally not from the film people at all, but from the Political Science school in Chicago University round about the early twenties."[26] As a young Scottish student in moral philosophy, Grierson had spent three years there on a Rockefeller Research Fellowship beginning in 1924. He arrived in Chicago preoccupied with the "problem of making large-scale democracy work" and spent his time studying emerging mass media such as the press, the cinema, advertising and other "instruments affecting public opinion."[27]

Walter Lippman's *Public Opinion*, published in 1922, proved to be a formative influence, with its theory that the complexity of modern mass society demanded a new form of public education in order to make democracy succeed. At a time of great social upheavals – including waves of immigration and the rapid growth of

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[26] Ellis, *John Grierson*, 22.
[27] Grierson, *Grierson on Documentary*, 15.

cities – Lippman argued that ordinary citizens "could not be expected to amass enough ever-changing information to make intelligent decisions."[28] As Jack Ellis points out, Grierson was particularly fascinated by the role he saw the yellow press playing in the assimilation of first-generation immigrants into American culture:

> Grierson noted that, with their headlines and photos, their simplifications and dramatizations, these papers served as informal but nonetheless compelling means of leading young Lithuanians and Poles, Germans and Italians, Irish and Czechs away from their parents and the old country and into Americanization of one sort or another. The news report of the European press had been shaped into the news story. The active verb was the key: something does something to something; someone does something to someone. This approach seemed to him to reflect the way the American mind worked, and the documentary film, as it would develop, came in part out of his understanding of this dramatic, active strategy.[29]

Drama and narrative were central to Grierson's understanding of the emerging mass media's power to "command the sentiments and loyalties of the people" and establish "a common pattern of thought and feeling" across an increasingly heterogeneous public sphere.[30] They provided a way to translate Lippman's ideas into action by educating citizens about public affairs and shaping their worldview on an emotional rather than intellectual level. "The dramatic level of apprehension," Grierson wrote, "is the only one that relates a man to his Maker, his neighbor or himself. I set it over against the informational level on which the

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[28] Ellis, *John Grierson*, 21.
[29] Ibid.
[30] Grierson, *Grierson on Documentary*, 15.

poor liberal theory of education had been humourlessly insisting for half a century."[31]

Following Lippman's suggestion, Grierson turned his attention from the press to the movies during his time in the States. He began analyzing the box office records of Hollywood films for relationships between form, content and popular appeal, inferring their ability to influence the public: "By romanticizing and dramatizing the issues of life, even by choosing the issues it will dramatize, [Hollywood] creates or crystallizes the loyalties on which people make their decisions. This, in turn, has a great deal to do with public opinions."[32] These reflections mirrored those of Edward Bernays, the pioneer of the modern public relations industry, who called the Hollywood film "the greatest unconscious carrier of propaganda in the world today."[33] Film thus seemed to be an ideal medium for reaching the masses, framing social issues, and providing the kind of emotionally exciting public education Grierson imagined. Yet he also argued forcefully that a purposive and persuasive approach to filmmaking needed to be cultivated outside Hollywood, independent from the profit motives of commercial media industries, which he felt "wasted opportunities to elevate the emotions and consciousness of their audiences."[34]

The documentary film, at least as Grierson formulated it, would leverage mass media's powers in service of the public, helping ordinary people understand

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[31] Ellis, *John Grierson*, 35.
[32] Ibid., 67.
[33] Swann, *The British Documentary Film Movement, 1926-1946*, 22.
[34] Ibid., 176.

the "stubborn raw material of our modern citizenship and wake the heart and the will to their mastery."[35] While his rhetoric emphasized a need to empower audiences to become better, more informed citizens, Grierson's theory of documentary also reflected an elitist desire for centralized coordination of public opinion – what Lippman famously called the "manufacture of consent"[36] – that seemed to grow out of a perceived erosion of the influence of traditional social institutions. As Paul Rotha, one of Grierson's early protégés, describes it: "the power to tap the springs of action had slipped away from the schools and churches and had come to reside in the popular media, the movies, the press, the new instrument of radio, and all the forms of advertising and propaganda."[37] The growing sophistication and perceived influence of commercial media industries put pressure on governments to apply these same techniques of persuasion to "inform and educate those over whom they held 'stewardship.'"[38] Documentary's earliest theory of change, therefore, was built upon assumptions about cinema's ability to "tap the springs of action" and the potential for government institutions to harness this power in the name of public service.

When he returned to Britain in 1927, Grierson found his first major ally in a British government bureaucrat, Stephen Tallents, then secretary of the Empire Marketing Board (EMB). Tallents initially hired Grierson to produce a series of reports on the prospects for British film production and distribution at a time when

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[35] Aitken, *The Documentary Film Movement*, 106.
[36] Morris, "Re-Thinking Grierson."
[37] Grierson, *Grierson on Documentary*, 15.
[38] Swann, *The British Documentary Film Movement, 1926-1946*, 5.

95% of films shown in Britain were produced in Hollywood. Established in 1926 to

promote trade throughout the British Empire as a substitute for the "decaying

military and political ties of empire,"[39] the EMB's mission, according to Tallents, was

to "bring the Empire alive to the mind of its citizens, and in doing so to substitute for

talk and theories about it a vivid and exciting representation of its infinitely various

lives and occupations."[40] As the first government body to engage in the still nascent

field of publicity, the EMB was quick to recognize the value of state-supported film

as an instrument for the expansion of markets, since it could help educate the

diverse publics of far flung territories about British culture, values and products.

Two years after he joined the EMB, Grierson had the opportunity make his

first and only film as a director, *The Drifters*. A film about fishermen in the North Sea,

it was intended primarily to advertise the herring industry.[41] The film received

critical acclaim and earned a profit within a year of distribution, giving Grierson

leverage to launch the EMB Film Unit in 1930 and begin hiring a group of young

protégés that would form the core of the British documentary movement.[42]

In its first two years, the Film Unit produced more than 100 films, but none

were able to duplicate the success of *The Drifters*.[43] Theater owners generally

resisted showing documentaries, either because they didn't trust government-

funded propaganda or because the EMB's short silent films couldn't compete with

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[39] Ellis, *John Grierson*, 33.
[40] Ibid., 34.
[41] Swann, *The British Documentary Film Movement, 1926-1946*, 30.
[42] Ibid., 34.
[43] Ibid., 43.

the production value of well-financed sound films from Hollywood.[44] As a result,

Grierson was forced throughout the 1930s to develop circuits of nontheatrical

distribution, showing films in schools, churches, factories and trade unions.[45] Of the

roughly half million people that were estimated to have seen EMB films in its first

year, three quarters of these were schoolchildren.[46]

The disparity between the critical and commercial success of *The Drifters* and

the relatively small audiences for other early EMB films would be repeated

throughout the 1930s in other institutional contexts such as the General Post Office

Film Unit and the Shell Film Unit. Out of the hundreds of films produced by

Grierson's followers during this time, the vast majority were relatively low-budget

educational or instructional films.[47] By the end of the decade, the movement shifted

away from public education, adopting a more targeted strategy of "aiming films at

elites and decision makers, rather than broadcasting them to general audiences."[48]

These early years of the documentary movement demonstrated how

Grierson's intellectual ideals about the use of film for civic education bumped up

against the realities of the marketplace and the constraints of institutional support.

Schoolchildren and elites may not have been the mass audiences Grierson had in

mind when he first articulated the potential of documentary film to raise political

consciousness and shape public opinion. If its impacts were evaluated based solely

on the number of films it produced or the size of its audiences, Paul Swann admits

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[44] Ibid., 42.

[45] Ellis, *John Grierson*, 363.

[46] Swann, *The British Documentary Film Movement, 1926-1946*, 44.

[47] Ibid.

[48] Ibid., 178.

that "even the most generous of assessments for either of these figures tends to chasten statements about the influence of the documentary movement's output."[49]

However, as I will attempt to demonstrate throughout this thesis, it is also important to acknowledge long-term impacts that extend beyond a simple measure of the size of British Documentary Movement's audiences or the influence that documentary films had on them. The institutional support Grierson found in the Empire Film Board facilitated the development of a community of practitioners that was able to develop a new cinematic language - one that continues to evolve to this day. The EMB Film Unit also created a stronger precedent for state-supported documentary film programs in other countries, such as the U.S. Farm Security Administration and the National Film Board of Canada. The challenges of reaching audiences in commercial theaters forced Grierson and his colleagues to develop alternative networks of nontheatrical distribution, which Ellis contends ultimately laid the foundations for the alternative media that followed a generation later in the form of public television, community access channels and video activism.[50] In these ways, the movement had important institutional impacts since it created infrastructures that supported the development of a cinematic language outside of Hollywood and helped rebalance, to a small extent, the distribution of media power.

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[49] Ibid., 177.
[50] Ellis, *John Grierson*, 359.

The Participatory Turn

In the Fall of 1971, just a few months before his death, John Grierson invited Canadian filmmaker Colin Low to speak to his class at McGill University and screen some films. Low had recently spent three years working with the National Film Board of Canada on Challenge for Change/Societé Nouvelle, ambitious multi-year initiative established to experiment with documentary filmmaking to tool for directly affecting social change.[51] Low had shot a series of films on Fogo Island, a small fishing community off the northeast coast of Newfoundland that was struggling with unemployment, declining fisheries, and possible government relocation. According to Low, the project's purpose was to use film "as a catalyst to generate local debate - to give local people a voice and even editorial control - and to provide those people with access to people in power, via film."[52]

The films that Low showed to the class were mundane and at times inaccessible. They lacked the context, narrative structure, and issue-based commentary that were standard for documentaries of the time. One 18-minute film, *Billy Crane Moves Away*, depicted a fisherman packing up his equipment while casually talking (in a thick regional accent) about leaving the island to seek more stable employment. There was no exposition, no plot and relatively little editing.

Grierson appeared unimpressed. In front of his students, he pressed Low: "What was the value of the film off Fogo Island? Was it good for television? Mass

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[51] Low, "Grierson and Challenge for Change," 17.
[52] Ibid.

media? What did it say to Canada? What did it say to the world?"[53] While

acknowledging that the Fogo films generally lacked popular appeal, Low countered

that their primary purpose was not to reach a broad audience, but to create a

"communication loop" both within the Fogo community and between citizens and

government stakeholders.[54] Throughout the process of production, the films were

screened for residents and their editorial input was solicited, sparking a sustained

public dialogue about the development issues facing the island. This community-

based model of documentary filmmaking became known as the "Fogo Process."[55]

The classroom exchange between Grierson and Low highlighted the tensions

between two contrasting ideals of documentary's methods for achieving social

impact and its relationship to audiences. For Grierson, cinema was a hammer – a

tool wielded by the elite to educate the masses, to consolidate national identity and

to foster new forms of democratic citizenship. Low, on the other hand, was

interested in using cinema as a mirror, a communications medium made accessible

to the general public that could be used to create social change through a more

tactical, bottom-up process of mediation and dialogue.

The Fogo Project would become an iconic example of a new generation of

activist filmmakers who saw emerging technologies like 8mm cameras, video and

cable television as opportunities to overthrow the hegemony of broadcast television

and democratize the medium by giving formerly marginalized communities a public

voice. In contrast to the British Documentary Movement's dramatic, polemical

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[53] Ibid., 19.
[54] Ibid., 17.
[55] Wiesner, "Media for the People: The Canadian Experiments with Film and Video in Community Development," 73.

documentaries aimed at general audiences, the Fogo project, along with many of the

Challenge for Change projects it inspired, placed a priority on collaborative rather

than professional authorship, on addressing local rather than global audiences, and

on social process rather than cinematic "product."

Officially launched in 1967, the National Film Board's Challenge for

Change/Societe Nouvelle program was born into a very different political and

cultural climate.[56] The 1960s were a decade in which documentary filmmakers

began to employ handheld 16mm cameras and sync sound recording systems to

make more intimate, personal and observational films about social realities under

the banners of "direct cinema" and "cinema vérité." According to Nichols, these

developments enabled a "far more participatory cinema" (in the sense that they

allowed filmmakers to participate more directly in unfolding events) and the new

modes "signaled a radical break with dominant documentary styles from the 1930s

to the 1950s."[57] The latter half of the decade was marked by a growing sense of

rebellion against powerful institutions of the political and cultural establishment,

among them the "mass media" and its perceived ideological control. The

development of relatively inexpensive image-making technologies like 8mm film

and lightweight Portapak video recorders offered the prospect of decentralizing the

means of production and the opportunity to reimagine documentary film's social

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[56] Waugh, Winton, and Baker, *Challenge for Change: Activist Documentary at the National Film Board of Canada*, 4.
[57] Nichols, *Introduction to Documentary*, chap. 1.

function and its relationship to the public sphere as articulated by Grierson a

generation before.[58]

Against this backdrop, Challenge for Change brought together "the unlikely

partners of government bureaucrats, documentary filmmakers, community activists,

and 'ordinary' citizens" around the common goal of "addressing poverty in Canada

through the production and dissemination of documentary cinema."[59] A group of

young idealists within the NFB saw an opportunity to not only make films about

people struggling with poverty, but to train them to make their own films, thereby

freeing them from dependence upon "liberal strangers who wandered into their

lives and then out again once the documentary had been made."[60]

Similar experiments with documentary's methods of representation and its

relationship to the subject were happening in parallel around the world: Sol Worth's

1966 participatory ethnographic film series, *Navajo Film Themselves*[61]; the SLON

collective, in which Chris Marker and others collaborated with striking workers in

Paris to make their own films[62]; the growing "guerrilla television" movement in New

York City[63]; and Jean Rouch's notion of "shared anthropology," in which the

ethnographic filmmaker shares his work and enables subjects to have greater input

into the representations made of them.[64] Each of these groups shared the goal of

[58] Boyle, *Subject to Change.*
[59] Waugh, Winton, and Baker, *Challenge for Change: Activist Documentary at the National Film Board of Canada*, 4.
[60] Boyle, *Subject to Change.*
[61] Pack, "Indigenous Media Then and Now."
[62] van Wert, "Chris Marker."
[63] Boyle, *Subject to Change.*
[64] Rouch, "The Camera and Man," 96.

decentralizing the process or means of production as a strategy for overcoming the institutional hegemony associated with both mass media and academic research.

The Fogo Island project became one of the Challenge for Change initiative's first major undertakings. It paired Colin Low with Donald Snowden, a community organizer based at the nearby Memorial University in Newfoundland.[65] Given the complex challenges faced by the islanders, the two men wanted to find a way to stimulate a process of community development rather than document social problems in order to enlighten a general Canadian audience.

Although he was already an accomplished filmmaker and one of the NFB's most respected auteurs, Low "did not want to use the Fogo Islanders to make an artistic statement."[66] Instead, he wanted to "investigate the reactions of a community when its people and problems were filmed in depth and then played back to them for discussion and criticism."[67] This decision laid the foundations for the rest of the project, shaping the relationship between filmmakers and subjects, as well as the aesthetics and utility of the films produced.

Over the course of 3 years, the Fogo Project produced 29 short films that contained scenes of everyday life on the island, interviews with residents, and group discussions about social problems. Low describes these films as being edited "vertically rather than horizontally… [they] were based on personalities incorporating a variety of issues, rather than an issue incorporating a variety of

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[65] Wiesner, "Media for the People: The Canadian Experiments with Film and Video in Community Development," 83.
[66] Ibid., 82.
[67] Druick, "Meeting at the Poverty Line: Government Policy, Social Work and Media Activism in the Challenge for Change Program," 345.

personalities."[68] This emphasis on personalities rather than issues meant that the films spoke more directly to the islanders themselves, but they had less value to a general audience. Because the Fogo films were intended for a local audience that fully understood their context, Low was free to dispense with narrative conventions like exposition, narrative development, and closure. Instead, the footage functions as a collection of disaggregated, open-ended scenes that together provide a cumulative portrait of the island and its problems. A record of screenings held on the island reveals that different orders and combinations of films were shown depending on the location and audience.[69] In this sense, the collection functioned like a database, with multiple configurations and points of access.

The theory of change behind the "Fogo Process" revolved largely around the documentary filmmaker's ethical responsibility to the subject. For Low and the Challenge for Change filmmakers that followed his example, artistic ambitions had to be subverted for the sake of a social process that treated film as a catalyst enabling "ordinary people to explore their own problems and arrive at their own solutions."[70] Filmmakers in the program began to describe their role as "social animators"[71] rather than artists. This was in many ways a radical departure from the Griersonian tradition, which championed films that could speak to the masses and shape public opinion through dramatic storytelling. As Rosenthal points out, this inversion of traditional notions of media-driven social change provoked a new set of critical questions: "What are the responsibilities of the filmmaker in this task?

[68] Low and Nemtin, "Fogo Island Film and Community Development Project," 8.
[69] Low and Nemtin, "Fogo Island Film and Community Development Project."
[70] Boyle, "O, Canada! George Stoney's Challenge," 314.
[71] Dansereau, "Saint-Jérôme: The Experience of a Filmmaker as Social Animator."

Where does one place oneself? Is one's main responsibility to society in general, to the people being filmed, to the network, or to somewhere else entirely?"[72]

Since there was no formal evaluation of the Fogo Project, the impact of the films was communicated primarily through the filmmaker's accounts of the participants' impressions. Low's documentation of the production process and reactions to screenings strongly suggests that the films "aroused community discussion on a very large scale."[73] The islanders ultimately did manage to avoid relocation and take greater control over their livelihoods by forming a fisherman's cooperative. Whether that development can be correlated directly to discussion generated by the films is a harder question to answer. According to the official report,

> No one got up at a screening and proposed a plan and had it unanimously carried into effect. I think what did emerge was a consensus for action. The films seemed to cause a certain tension or impatience to do something, and when the opportunity was provided by the co-operative formation, people turned out in large numbers to support it.[74]

While the project may not have been the sole catalyst for these changes, the films Low produced – and particularly the *process* behind them – seem to have strengthened the work already being done by community organizers like Snowden.

Indeed, evaluation became a perennial issue for the filmmakers and administrators of Challenge for Change. The participatory films produced by the initiative couldn't be held to the same artistic standards as the NFB's traditional film work, nor could they be measured against the traditional metrics of broadcast

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[72] Rosenthal, "You Are on Indian Land: An Interview with George Stoney," 169.
[73] Low and Nemtin, "Fogo Island Film and Community Development Project," 24.
[74] Ibid.

television, theatrical or educational distribution, since they were aimed primarily at small, local audiences. A 1972 article by Dan Driscoll in the CFC newsletter titled "Can We Evaluate Challenge for Change?" attempted to address the issue by asking if social planners could learn from engineers and their "highly developed capacity for self correction."[75] Challenge for Change, he argued, should be viewed "as an instrument designed by political and social professionals for certain defined tasks."[76] Low echoes this point in his report, calling for social scientists to treat projects like Fogo as legitimate objects of study.[77] But it seems that these calls were never answered and no formal studies were done on the projects in situ.

By introducing the possibility of a filmmaking process aimed at a local rather than a mass audience, the Fogo Project films destabilized documentary film's traditional relationship to its audience, which was rooted in a Griersonian ideal about the social influence of mass media. This transition from broadcasting to a more "narrow casting" based strategy marked the emergence of media environment in which visual communication technologies were becoming more accessible, channels for distribution were expanding rapidly and the attention of audiences was become more fragmented into niche communities.

Although experiments like Fogo initially drew widespread attention, it became hard to prove any direct correlation between the media artifacts produced by them and measurable social change. The process depended on the skill of filmmakers as "social animators" and was typically embedded within preexisting

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[75] Driscoll, "Can We Evaluate Challenge for Change? (1972)," 67.
[76] Ibid., 68.
[77] Low and Nemtin, "Fogo Island Film and Community Development Project," 29.

community development efforts. These challenges in evaluation, combined with a changing political climate, made it difficult for the Challenge for Change filmmakers to justify the government's continued investment and the NFB returned its focus to professionally produced documentaries and animated films aimed at larger audiences. Reflecting on his classroom exchange with Grierson, Colin Low summarized his own interpretation of the program's demise:

> Somewhere in the mid-seventies the program slowly expired – after several attempts to revitalize it – for those reasons Dr. Grierson so deftly fingered in his criticism of the program. "Evidence." That's what you must bring to these situations – and what you must carry away from the situation. Government wants evidence. Evidence of change. Cost-benefit analysis. As money became tighter – as the idealistic citizen-participation rhetoric of the sixties did a cross-mix to the rhetoric of energy economics – we saw the emergence of another approach. "Something does something to something," in no uncertain terms. Referendums are won by the merchants of hard sell. The advertising companies do their homework, with statistical evidence. For X dollars you reach Y people with Z impact. They are hard to refute. They have fifty years of advertising theory and practice behind them and a conditioned populace which, if it does not totally believe the message, at least tolerates it.[78]

During the same time period, parallel movements for participatory media also lost momentum, often because their impact couldn't be easily measured and therefore didn't align with existing institutional agendas or funding priorities. Writing about the forces that prevented the American guerilla television movement's "dream from becoming reality", Boyle notes that the lack of audiences played a key role: "Their successes looked small and their reach puny compared to the vast audiences demanded for success in the world of broadcast television."

[78] Low, "Grierson and Challenge for Change," 22.

The methodological innovations enabled by new technologies like 8mm film, video and cable television introduced the potential for a paradigm shift in the relationship between media and the public sphere, one which proponents argued could create more tangible and tactical forms of social impact at the individual and community level. However, the institutional logic of mass media ultimately prevailed, in part because established measurement systems – built around the commercial imperatives of the marketing and broadcasting industries – favored "statistical evidence" of social influence. Even documentary films produced outside the commercial media industries were considered to have impact only insofar as they could attract the attention of a large audience and affect their attitudes or behaviors.

1.4 The "Impact Industry"

During the last decade, the social impact of documentaries has become a renewed focus for filmmakers, public interest media organizations and, in particular, the funders supporting them. As digital platforms have given filmmakers new opportunities and tools to reach audiences and create social action or "audience engagement" campaigns[79], a broad ecosystem of support has emerged for social justice documentaries, including an array of foundations (Ford, MacArthur, BRITDOC, the Fledgling Fund), "double bottom line" production companies (Participant Media, Impact Partners) and nonprofits (Sundance Institute, Tribeca Film Institute). As these funders deepen their investments in the production and

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[79] Karlin and Johnson, "Measuring Impact," 3.

distribution of issue-driven documentaries, they have also facilitated the development of what I call the "Impact Industry" – a small but growing network of professionals involved in producing conferences, pitch sessions, awards, dozens of research reports and case studies, measurement tools, and most importantly, outreach campaigns tied to films and often run by specialized campaign coordinators known as "impact producers."

According to the foundation affinity group Media Impact Funders, questions about what the social impact of documentaries and other forms of public interest media is – and how it should be evaluated – have been tackled in recent years by "a growing array of convenings, reports and research initiatives within the philanthropic sector."[80] Since 2008, no fewer than 20 white papers have been published on the topic, in addition to countless case studies and articles.[81] Most of these reports have proposed conceptual frameworks for defining and measuring the quantitative and qualitative dimensions of media's social impact.

Other initiatives have developed tools for impact measurement that capture the trails of data left behind by digital audiences. For example, ConText – a tool developed by computer scientists at the University of Illinois Urbana-Champaign with support from the Ford Foundation – uses semantic network analysis of media coverage and social media data to construct a model that "represents the public discourse on the main theme(s) addressed in a film" including the networks of stakeholders involved in that issue. The Harmony Institute's StoryPilot offers a user-

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[80] Barrett and Leddy, "Assessing Creative Media's Social Impact," 2.
[81] For a comprehensive list of resources, see Media Impact Funders' website "Assessing the Impact of Media": http://mediaimpactfunders.org/assessing-impact-of-media/

friendly dashboard that parses similar data on a film's reach and the discourse surrounding it – including box office reports, YouTube trailer views, Wikipedia views, social media followers and engagement, "mass media mentions," and mentions by policy makers. Based on these numbers, documentaries are assigned different impact labels such as "Issue Trendsetters" (films that initiate public discourse), "Issue Primers" (films that help get audiences up to speed), and "Social Media Stars" (films that are discussed widely on social platforms). The Participant Index, developed by the University of Southern California and Participant Media with funding from the Knight Foundation and Gates Foundation, attempts to combine quantitative and qualitative methods to "provide insights about what an audience learns (knowledge), feels (attitudes) and does (behaviors and actions)." Like ConText and StoryPilot, it draws on datasets like viewership and social media conversations, but it also tries to integrate audience opinion data gather from surveys, based on the theory that the more emotionally involved audiences are with a film the more likely they will be to take social actions.

Why is there such a growing emphasis on evaluating impact now? The "Impact Industry" has emerged at a moment when a changing media environment is creating both opportunities and existential challenges for documentary film producers and for the public interest media sector as a whole. Digital technologies have dramatically lowered the barriers to entry for media production and distribution, enabling a rapid growth in the number of documentaries being produced that has far outpaced the availability of grant funds, even as the cost of production has come down and crowdfunding platforms provide alternative paths

to funding. Whereas the distribution of documentaries was once limited by a relatively small ecosystem of broadcasters and distributors, the digital environment has introduced "myriad new and untested platforms"[82] that have the potential to reach global audiences that now include more than 3 billion Internet users, but also carry the risk of fragmenting their attention across a virtually unlimited array of media choices.

Perhaps most importantly, the rise of social media networks and the growing ubiquity of camera-equipped smartphones allow audiences to play increasingly active roles in producing and circulating media content. A media environment once dominated by "one-to-many" mass communication is increasingly characterized as a "many-to-many" networked information economy and a "participatory culture" with "low barriers to artistic expression and civic engagement."[83] What Jenkins, Ford and Green call a "reconfiguration of audience power"[84] might also be described as a *redistribution* of power from legacy media institutions to individual media users, as well as new organizational players like digital news startups.

These rapid changes have significantly threatened some legacy media business models. Newspapers have seen print ad revenues drop 65% within the last decade.[85] Public broadcasting continuously faces the threat of budget cuts while being "stretched to the limit by demands to produce content for multiple

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[82] "Funder Perspectives: Assessing Media Investments," 1.
[83] Clinton et al., "Confronting the Challenges of Participatory Culture."
[84] Ford, Green, and Jenkins, *Spreadable Media*, 117.
[85] Shirky, "Last Call: The End of the Printed Newspaper."

platforms."[86] At a time when both their business models and their influence on the

public sphere are being significantly challenged, public interest media organizations

are struggling to simultaneously innovate, adapt and articulate the social value of

their work in the digital age. Studies like *Deeping Engagement for Lasting Impact*,

commissioned by the Knight and Gates Foundations, argue that "demonstrating

impact is key to survival" and "staying relevant in a changing world."[87] The UK-

based BRITDOC Foundation points out on its website that although documentaries

are "increasingly being recognised as a key medium for communicating social justice

issues and inspiring social change," their impact may still be dismissed by cynics if

filmmakers rely solely on "anecdotal evidence or common sense" rather than "hard

evidence" of change.[88]

Foundations have stepped into this fray in an attempt to preserve and

enhance the core public good provided by nonfiction media forms like documentary

film and investigative journalism. Media-related grant making has grown rapidly –

increasing by 21% between 2009 and 2011 alone.[89] Out of 172 digital nonprofit

news outlets identified in a Pew Research Center report, over 70% were founded

since 2008.[90] For funders concerned with the health of the public interest media

sector, alternative producers like nonprofit news startups and independent

documentary filmmakers offer potential antidotes to failing newspapers and a

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[86] Clark and Abrash, "Social Justice Documentary," 6.
[87] Learning for Action, "Deepening Engagement for Lasting Impact," 1.
[88] BRITDOC Foundation, "The Impact Field Guide & Toolkit."
[89] Henry-Sanchez and Koob, "Growth in Foundation Support for Media in the United States," 4.
[90] Keller and Abelson, "NEWSLYNX: A Tool for Newsroom Impact Measurement."

polarized cable news industry, creating "quality content that can be used to engage members of the public as citizens rather than merely media consumers."

However, reliance on "non-market sources like philanthropy and government"[91] comes with strings attached. Since these funders come under greater public scrutiny than private enterprises, they place greater emphasis on accountability and evaluation. Given the sheer quantity of content now being produced and the shifting dynamics of the media environment, funders also face great uncertainty about which projects and organizations to support. As a result, many of them are looking for better frameworks and tools to help them make decisions. According to BRITDOC, documentary funders are increasingly searching for "hard data to show to colleagues, bosses and boards when it comes to media funding decisions. And they need more than just TV ratings, press cuts and awards to prove the real reach, influence and impact of their investment."[92] Over time, BRITDOC argues, better evaluation of impact could "help the documentary sector as a whole to lobby for greater resources and status."[93]

Dimensions of Impact

Much like the practitioners involved in the British Documentary Movement and Challenge for Change, the stakeholders in today's "Impact Industry" operate from a set of assumptions about what forms of social impact documentaries and public interest media can produce, as well as how this process unfolds. Much of the

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[91] "The Reconstruction of American Journalism."
[92] Search, "Beyond the Box Office: New Documentary Valuations," 6.
[93] Ibid., 47.

contemporary literature on media impact mirrors Grierson's ideals about film as a powerful medium for public education. From this standpoint, the social impact of a documentary film rests on its ability to raise awareness and understanding about an important issue, particularly if that issue is "incredibly complex or not well understood."[94] In some cases, awareness can extend beyond the audiences for the film itself, since "certain pieces of media content can have an agenda-setting effect on other media; and as a result individuals, organizations, or institutions can be affected without ever having been exposed to the original content."[95] For many public media and traditional news organizations, the idea of "impact" is strictly limited to these essentially journalistic imperatives of informing audiences and stimulating public discourse or debate. Thus, for many documentary's core social function today remains its ability to draw an audience's attention to an issue, represent it in more comprehensible or humanized terms, and catalyze discourse.

As foundations play a greater role in sustaining the public interest media sector, more emphasis is now placed on impacts that extend beyond the sphere of awareness, understanding and discourse. The Fledgling Fund's seminal report "Assessing Creative Media's Impact" – one of the most cited publications in this genre – is written from a more explicitly activist stance, grounded in the belief that film can be "a catalyst to change minds, encourage viewers to alter entrenched behaviors, and start, inform or re-energize social movements."[96] Much like Grierson, the authors draw a direct connection between commercial media's persuasive

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[94] Barrett and Leddy, "Assessing Creative Media's Social Impact," 14.
[95] Napoli, "Measuring Media Impact"; Nisbet, "Introduction."
[96] Barrett and Leddy, "Assessing Creative Media's Social Impact," 2.

power and documentary's potential influence: "We assume that if ads can sell products, visual imagery linked to a social justice narrative can sell social action, or political conviction."[97] For issues that are widely understood or have available solutions, the authors suggest that a film-based outreach campaign's goals should "shift to something more concrete than simply dialogue."[98] In this model, awareness and understanding ideally lead to changed attitudes, behaviors or "social action."

The word "engagement," which Fledgling defines as "a shift from simply being aware of an issue to acting on this awareness," lies at the crux of most contemporary theories of change. The word has appeared with increasing frequency in the media impact literature and virtually every other sector of the media industries, signaling a widespread shift from an institutional view of audiences as comprised of passive *viewers* or *recipients* to one in which they become *users* with a variety of active relationships or responses to media content.

Much like "impact," the concept of "engagement" can take on a multiplicity of meanings depending on the context in which it used. Philip Napoli outlines 25 different definitions of the terms "audience engagement" used within in advertising industry research, ranging from viewers' involvement or interaction with a marketing communication to their "emotional connection" and loyalty to the brand behind it. In numerous reports discussing engagement, the term is equated with media users' level of attention. For example, Chartbeat's "engaged time" metric, popular among news organizations, measures the amount of time readers spend

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[97] Ibid.
[98] Ibid., 14.

with a single article rather than more generic measures like page views and session duration.[99]

Increasingly, the word "engagement" also refers to various social media activities, such as liking, sharing, commenting on and discussing media texts, and sometimes even contributing content. Given the transparency of social media activities, this dimension of engagement has become a key site of measurement. For example, Twitter has begun marketing itself to the television industry as a "synchronized social soundtrack" for TV programs, and the company now works with research firms like Nielsen to use augment traditional ratings like impressions.

Finally, as the Fledgling Fund report demonstrates, the word engagement is sometimes used to refer to the concrete actions that individuals might take in response to viewing media content. In a marketing context, this usually means buying a product after seeing an advertisement. In the context of public interest media, it might mean participating in civic activities like voting, signing a petition, contacting a representative or joining a protest movement. For both marketers and advocacy-oriented media producers, these kinds of "offline" impacts are often the ultimate goal.

Many impact reports devote significant attention to strategies for building partnerships with activists and community organizations, which can create an infrastructure "that encourages individuals, organizations, and/or communities to act."[100] Partners can help filmmakers plan audience engagement campaigns, host or facilitate grassroots screenings (often in nontheatrical venues like those employed

[99] "Audience Development Whitepaper."
[100] Barrett and Leddy, "Assessing Creative Media's Social Impact," 14.

by Grierson) and, importantly, provide ways in which audiences can get directly involved with an issue. In some cases, partners may even provide input during the production process and help shape the message or framing of a film. David Whiteman identifies this approach as the "coalition model," describing how films that "may never achieve significant distribution, and therefore never enter mainstream public discourse" can still have significant impact by "educating and mobilizing activists outside the mainstream."[101] According to this theory of change, such collaborations can strengthen social movements and contribute to social change over time even if they don't reach large audiences.

Although contemporary models of media impact still are largely rooted in the top down communication dynamics of mass media, the emphasis on social media engagement and the development of alternative distribution networks for documentary indicates a shift toward more participatory dynamics. Grassroots audience engagement campaigns, for instance, have the potential to open up channels of participation that involve communities more directly in the process of communicating social issues and collaboratively defining appropriate responses. In some cases, these campaigns may even involve participatory elements such as soliciting stories from audience members.

A report published by American University's Center for Media and Social Impact (CMSI) titled "Social Issue Documentary: The Evolution of Public Engagement," extends this concept by exploring how digital technologies and a multiplatform media environment are making possible a new breed of public media

[101] Whiteman, "Out of the Theaters and into the Streets," 54.

that is more accessible, participatory and inclusive. What CMSI calls "Public Media 2.0" includes not only public broadcasters but a whole ecosystem of distributors, service organizations, festivals, funders and nonprofit organizations. They argue that new technologies and audience engagement strategies can help these public media producers move beyond its tradition of educating and informing the public by focusing on enabling publics "to recognize and understand the problems they share, to know each other, and to act." Documentaries form a important part of this ecosystem, since they "not only provide trusted information about thorny issues, they tell stories that frame and give human meaning to those issues and provide language for debate across boundaries of difference." While professionally-produced films are still emphasized as the catalysts of social change, reports like CMSI move away from Grierson's paternalistic model by acknowledging the agency of subjects and audiences as producers of knowledge, meaning and value.

The Politics of Evaluation

How should these various dimensions of impact be measured? While digital technologies have opened the floodgates for production and distribution of media content on new platforms, they have also "opened up a range of new analytical opportunities"[102] by making audience activities more transparent than ever. The combination of the pressure to rationalize media's influence and the technical ability to render audiences more visible has given rise to what Phillip Napoli calls

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[102] Napoli, "Measuring Media Impact," 4.

"audience information systems."[103] In the public interest media sector, the same foundations that support the production of documentaries are also funding the development of a suite of new tools for measuring impact. These increasingly sophisticated metrics attempt to go beyond traditional measures of success like "reach" or "exposure" and use the trails of data left by digital media users as indicators of their level of engagement with content.

Fledgling Fund suggests a range of measures specific to each dimension of impact. For instances, a compelling story is validated by acceptance to festivals, broadcast on television, awards and reviews. Awareness is measured by factors such as audience size and diversity. Engagement is reflected in viewers' participation, whether through social networking sites, facilitated dialogues, Take Action campaigns or other forms. Evidence that a film is a creating a stronger movement can be found in the number of organizations utilizing the film, collaboration between partner organizations, screenings with policy makers and mentions in policy discussions. Finally, social change – what Fledgling labels the "Ultimate Goal" of issue-driven documentary – can be measured by looking at factors like policy change, behavioral change and shifts in public dialogue.

The growing emphasis on evaluating impact has been received with some skepticism and debate, even among those filmmakers who count social change as one of their primary goals. In a survey conducted by the True/False Film Festival and the "creative strategy group" Aggregate, 72% of filmmakers believed that their film could create social change, while 66% answered "No" to the question "Do you

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[103] Napoli, *Audience Evolution*, 8.

think there should be metrics to measure the social change created by a film?"[104] A report published by a coalition called Media Impact Funders acknowledges skeptics' concerns that "an excess of evaluation might stifle creativity, needlessly limit funding to those projects whose short-term impact can be conclusively proven, or simply bog grantees down in administrative tasks that require entirely different skills, as well as resources."[105]

In July 2014, the New York Times published an article titled "Participant Index Seeks to Determine Why One Film Spurs Activism, While Others Falter," profiling a new impact metric called The Participant Index, or TPI. Developed by Participant Media and the University of Southern California with funding from the Gates Foundation and the Knight Foundation, TPI combines "insights about what an audience learns (knowledge), feels (attitudes) and does (behaviors and actions)"[106] into a single quantitative measure of a film's impact. The Times article exacerbated concerns that such metrics run the risk, in the words of consultant Patricia Finneran, of "failing to capture the beautiful complexity of storytelling and social change" by reducing a film's impact to a single number or score.[107]

In September 2014, The Fledgling Fund responded to these concerns in an open letter, arguing that new tools like TPI can "help us and our grantees learn" by providing insights that can be used to "shape and strengthen campaigns as they unfold." The letter emphasizes the limits of big data analytics, the importance of

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[104] "Documentary Filmmakers and Social Change: A Survey of True/False 2014 Filmmakers."
[105] "Funder Perspectives: Assessing Media Investments," 1.
[106] "Storytelling Matters: Measuring the Social Impact of Entertainment on Audiences (Key Findings)," 1.
[107] Finneran, "STORY MATTERS."

balancing quantitative and qualitative methods for impact assessment and the need to measure impact against a "project's unique goals, its target audiences and its strategy for change." It also acknowledges that fact that most social changes can't be attributed to a single film, but rather documentaries contribute to the work of "activists, leaders, organizations and coalitions that have laid groundwork long before the films and campaigns were conceived."[108]

While these debates have been conducted within the relative isolation of the documentary film community, they reflect concerns about evaluation's usefulness and scientific validity that have been an undercurrent in the philanthropic sector since the 1960s. Peter Dobkins Hall's excellent history details how evaluation research emerged initially out of policy debates over the regulation of foundation spending and governance, which raised deeper questions about whether, in the words of John D. Rockefeller III, "foundations have advantages over other means for promoting the general welfare."[109] In 1973, around the same time that Colin Low lamented the decline of the "idealistic citizen-participation rhetoric of the sixties" and the rise of "energy economics," the president of the Russell Sage Foundation, the sociologist Orville G. Brim Jr., published an influential article titled "Do We Know What We Are Doing?" In it, he distinguished between "the 'impressionistic evaluative procedures' used by administrators, politicians, and journalists from 'hard-headed' and 'specific' assessments."[110] Bell details the Robert Wood Johnson Foundation's investments in systematic evaluation of its healthcare-related

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[108] Barrett, Leddy, and Verellen, "Fledgling Response to Impact Measurement Debate."
[109] Hall, "A Historical Perspective on Evaluation in Foundations," 31.
[110] Ibid.

programs. While the effort was praised in the philanthropic for generating

"reproducible conclusion[s]" about the success or failure of programs, its huge cost

made it "prohibitive for 99% of the nation's foundations." In an article written on

the occasion of his retirement, the foundation's president David Rogers argued that

the major contribution of outcomes-based evaluation was "allowing a foundation's

staff to agree on its 'major programmatic thrust.'"[111] As Bell summarizes:

> This revealing admission illuminates an aspect of evaluation that few
> evaluation researchers at the time were willing to acknowledge: that
> rather than producing "objective" measurements of the impact of
> foundation interventions, its primary value was to reduce uncertainty
> and disagreement within grantmaking organizations.[112]

Despite these longstanding doubts about the ability of evaluation research to

produce objective measures of social change, the subject has became increasingly

ubiquitous in the nonprofit sector since the 1990s, in part because of a rapid growth

in the number of new foundations (many from the "results-oriented world of high-

tech business"), the "professionalization of nonprofit management" through

business and public administration schools, and the capacity of large foundations to

"to incentivize areas in which they wanted research done" by the scholarly

community.[113]

In recent years, a model of evaluation known as "Theory of Change" has

become more popular across the philanthropic sector. Developed by Carol Weiss,

the approach asks planners of social programs to "describe the set of assumptions

that explain both the ministeps that lead to the long-term goal of interest and the

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[111] Ibid., 39.
[112] Ibid.
[113] Ibid., 43.

connections between program activities and outcomes that occur at each step of the

way."[114] According to a report published by the Aspen Institute Roundtable on

Community Change, which has played a major role in popularizing this model,

> The TOC approach is designed to encourage very clearly defined outcomes at every step of the change process. Users are required to specify a number of details about the nature of the desired change—including specifics about the target population, the amount of change required to signal success, and the time frame over which such change is expected to occur. This attention to detail often helps both funders and grantees reassess the feasibility of reaching goals that may have initially been vaguely defined and, in the end, promotes the development of reasonable long-term outcome targets that are acceptable to all parties.[115]

The last sentence about defining "targets that are acceptable to all parties" confirms

Bell's point about evaluation's basic role as a tool for aligning expectations between

grantmaker and grantee. While the "Theory of Change" framework allows some

flexibility for program planners to determine what kinds of impacts or outcomes

their work will produce, it still starts from the basic assumption that impacts can be

predicted and measured.

Recent initiatives aimed at evaluating media's social impact have inherited

this complicated legacy, yet rarely reflect on it. While the "Theory of Change" model

ostensibly allows public interest media producers to define their own goals and

outcomes, this can be still be hugely challenging since creative works like

documentaries inevitably have unintended, unpredictable and hard-to-measure

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[114] Anderson, "Theory of Change as a Tool for Strategic Planning: A Report on Early Experiences," 2.
[115] Ibid., 4.

impacts – particularly when their understanding of audiences is mediated through the abstraction of audience measurement systems.

Evaluating Interactive Documentaries

In parallel to this growing pressure from funders to evaluate social impact, public interest media organizations have been experimenting with both the types of content they produce and the ways they distribute and present it. Given the role that new technologies has played in the disruptions of the media landscape, these institutions are now looking to creative applications of these same technologies in their search for "deepening engagement" and "lasting impact."[116] In the process, they are expanding their capacity for producing interactive media on the Web, mobile devices and, in some cases, emerging platforms like virtual reality.

To date, the vast majority of media content on the web resembles the forms that came before it: static, linear blocks of text, videos and photographs and audio clips. As broadband access spreads and technologies such as the web browser and mobile devices mature, it is becoming possible to produce more personalized multimedia experiences of nonfiction storytelling that are innately interactive, nonlinear, participatory and/or immersive. In particular, interactivity and participation, two of the defining features of networked digital environments, have been embraced as strategies for building more engaged audiences on the Web.

From an institutional standpoint, however, innovative and unfamiliar media forms like interactive documentaries present several challenges. Many interactive

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[116] Learning for Action, "Deepening Engagement for Lasting Impact."

documentaries attempt to forge new conventions of user engagement with nonfiction narrative, asking users to navigate through archives of footage, participate in constructing a story by contributing user-generated content, or play an immersive first-person "documentary game." Given the experimental nature of this work, it is often unclear whether these strategies allow users to engage more deeply in a story, or whether they present obstacles to engagement for users more familiar with the "lean back" experience of linear storytelling forms.

Furthermore, there are no well-established distribution platforms on which interactive documentaries can reach wide audiences. One of the central challenges of the Web is the fact that it has enabled an exponential growth in amount of media content competing for the attention of audiences. Distribution is no longer question of merely publishing to a given platform, but now requires users to share and discuss that content via their social networks, or discover it via search algorithms. This means that interactive documentaries, like most media content on the Web, have struggled to find audiences comparable to their broadcast counterparts.

Finally, despite the unprecedented transparency of audience activities on digital platforms, there are still few tools available tailored to measuring user behaviors within interactive documentaries. Although contemporary studies on media impact tend to revolve around the idea of "audience engagement," the measures they propose are generally limited to variables like audience size, attention and social media activities – the same metrics used for linear content on the Web. Reflecting the ad-driven media economics of the Web, they construct a narrow view of what Ettema and Whitney call an "institutionally effective audience"

for documentaries on digital platforms, failing to capture many qualitative dimensions of the user's experience in interactive documentaries.

As we transition from linear forms to a wide variety of interactive, participatory, nonlinear and immersive forms of documentary, a new set of questions opens up about how different forms of audience engagement translate into different types of social impact. For example, many interactive documentaries invite audiences to play a more active, participatory roles in the storytelling process or the discourse surrounding an issue. Sandra Gaudenzi has identified a range of different collaborative strategies used by producers, including constructing documentaries around user-generated content, inviting debate and commentary within a project, or, in the tradition of Challenge for Change, collaborating with specific communities in ways that are not always visible to general audiences.

As Kate Nash has pointed out, there are multiple dimensions that can be used to characterize the "interactivity" in interactive documentaries. Perhaps most obvious are the *technological* and *experiential* dimensions, which refer respectively to the technical infrastructure and user's experience of the interactions that enables. Nash contends that interactive documentaries also *relational* dimension, referring to "how users are addressed, how they're invited to participate, and the types of communicative environment" they create. Finally, Nash points out that interactive documentaries have a discursive dimension, asking: "to what extent do user actions have a meaningful impact on the arguments made by the documentary and to what extent therefore do users have agency with respect to discourse?" Each of these collaborative strategies and dimensions of interactivity points to the ways that

interactive documentaries can have a fundamentally different relationship to audiences, as well as different ways of constructing the public sphere through media.

Given this complexity, it is essential for institutions experimenting with these forms to develop a better understanding of how individual users are affected by, for example, the experience of navigating a web documentary, producing media for a participatory documentary or "immersing" themselves in a 360-degree virtual reality film – and how these engagements may or may not lead to forms of impact that fall outside of traditional metrics regimes. As Ettema and Whitney have shown, audiences are "constructed" to serve institutional purposes. Will interactive documentaries attract audiences that serve existing institutional purposes and notions of social impact? Or will they nudge legacy media institutions to adapt their "theories of change" to the dynamics of a networked media environment? The ways in which these legacy media institutions define and measure impact will be a key determinant of how the process of digital adaptation and innovation unfolds, how the language of interactive documentary evolves, and whether or not the interactive documentary ultimately reaches the artistic, social and political potentials that many have ascribed to it.

CHAPTER 2
The National Film Board of Canada

In Chapter 1, I outlined two distinct ways that the social impact of documentary film has been conceptualized, or two "theories of change" that have shaped the documentary tradition at different moments of history. The first, rooted in Grierson's paternalistic vision, emphasizes the ways in which mass media can influence audiences by transmitting knowledge or values – in Grierson's words, creating a "common pattern of thought and feeling" among citizens. The second, reflected in participatory experiments like Challenge for Change, emphasizes the ways in which more localized publics can form and gain agency through a process of media production – particularly when new technologies help lower the barrier for entry. Finally, I looked at the ways in which variations of these theories are expressed in the contemporary literature on social impact measurement – which increasingly stresses the importance of "audience engagement" – and how they might apply to emerging forms of interactive documentary.

In this chapter, I'll explore how recent investments in interactive documentary production at the National Film Board of Canada (NFB) reflect both these "top down" and "bottom up" theories of change and their corresponding notions of social impact. Like many public interest media organizations, the NFB has faced the pressure of shrinking budgets and a need to justify the value of its work while simultaneously adapting to the digital media environment. At the same time, as a "public producer" with a broad mandate, a legacy of innovation, and a single

funding source – the Canadian government – the NFB has had the creative and financial latitude in recent years to transform itself into an R&D lab for the documentary form, launching two interactive studios dedicated to experimenting with a wide variety of new technologies and techniques for interactive digital storytelling. Focusing on some of the National Film Board's most prominent interactive documentaries, I will explore how these different techniques reflect varied notions of what constitutes "impact" – and therefore require different approaches to measuring it.

Much of the NFB's interactive work, produced by two Interactive Studios in Montreal and Vancouver, has experimented with novel user interfaces for multimedia content – including calls for participation – in an attempt to build audiences on the Web and engage those audiences more deeply in a story. The impact of these web documentaries, much like their linear counterparts, is typically evaluated based on their ability to capture the attention of audiences or stimulate some kind of broader discussion online. On the other hand, NFB projects like Katerina Cizek's collaborative documentaries *Filmmaker in Residence* and *Highrise* grow out of the participatory tradition of Challenge for Change, approaching new technologies as an opportunity to work closely with local communities and rethink the methods and ethics of documentary storytelling. Like Challenge for Change, this community-based process blurs the lines between media making and social work. Therefore it doesn't always translate into large audiences, but it arguably allows Cizek to make a more direct and qualitatively measurable impacts on the lives of her subjects.

Further complicating these divergent notions of impact are what I call "institutional impacts": the various ways that digital experimentation is seen as benefiting the organization itself. The NFB's evolving public interest mission has largely focused on its ability to differentiate itself from other media organizations producing documentaries. From this standpoint, the institutional impacts of the NFB's interactive documentaries include the ways in which they allow the organization to demonstrate "cultural leadership" by developing new artistic forms, working in "areas of market failure," and building capacity for interactive media production that extends well beyond what most other public interest media organizations can afford.

While these outcomes may not be considered *social* impacts in the traditional sense, they are highly valued by the key stakeholders within the organization and key to the development of interactive documentary as an art form. Regardless of their impacts on audiences, the National Film Board's interactive documentaries have strongly influenced the development of a nascent field, bringing greater visibility and prestige to the organization and helping make the case for its continued existence as a "public producer" of documentaries in the digital age. Looking forward, however, these impacts may not be enough to justify continued experimentation if interactive documentaries can't draw consistent audiences or demonstrate social impact in other ways.

Redefining the Public Sphere

The National Film Board of Canada is an organization that has both documentary and innovation in its DNA. During its 75-year history, the NFB has produced over 13,000 films that have garnered over 5,000 awards.[117] Mostly of these have been documentaries, although the organization also has a studio that produces experimental animation. During the 1960s, NFB filmmakers helped pioneer the observational techniques of cinema vérité and new technologies like IMAX cinema.[118] As we saw in the previous chapter, the organization was also responsible for bold experiments in participatory filmmaking and video activism through its Challenge for Change initiative. This legacy of experimentation has been made possible by its unusual funding model and mandate. Funded entirely by the Canadian government, the NFB has historically enjoyed, according to historian Gary Evans, an "atmosphere relatively unfettered by the political masters who paid the bills."[119] Nevertheless, the NFB's approach to its public service mission has evolved continuously in response to changing political contexts and media environments.

The roots of the National Film Board lie in the British Documentary Movement's model of using documentary film as a tool for state-sponsored public education. In 1938, John Grierson was invited to study the filmmaking activities of the Canadian Government Motion Picture Bureau, which for two decades had been producing low-budget educational films "designed to promote specific ideas, or a

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[117] Government of Canada, "Our Collection - National Film Board of Canada."
[118] Evans, *In the National Interest*.
[119] Ibid., xi.

sense of belonging among the citizenry."[120] His findings that the Motion Picture

Bureau lacked adequate resources and a "governing direction" led to the passage of

the Film Act the following year, which Grierson helped to draft. The new legislation

established the National Film Board as a "public producer" with a mandate to "make

and distribute films designed to help Canadians in all parts of Canada to understand

the ways of living and the problems of Canadians in other parts."[121] In the same way

that the EMB Film Unit was set up to "bring the Empire alive to the mind of its

citizens,"[122] the National Film Board approached the production and distribution of

documentary films as a way to construct a public sphere across Canada.

Today, although its focus has broadened to audiences outside Canada, the

National Film Board's core mission remains largely the same: "to provide new

perspectives on Canada and the world from Canadian points of view, perspectives

that are not provided by anyone else and that serve Canadian and global

audiences."[123] In the Griersonian tradition, its documentary productions are still

described as serving the public interest by "creating common democratic, civil

values" and explaining the "the changing cultural and social realities of Canada."[124]

During the past decade, however, the organization has undertaken an ambitious

digital transformation, perhaps best illustrated by a shift in how the NFB describes

its creative output. Whereas it once used the word "film" almost exclusively, the

organization now refers to its productions as "innovative and distinctive audiovisual

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[120] "Our History."
[121] Evans, *In the National Interest*, 17.
[122] Ellis, *John Grierson*, 34.
[123] Government of Canada, "Mission and Highlights - National Film Board of Canada."
[124] "NFB Strategic Plan 2008-2009 to 2012-2013," 5.

works and immersive experiences"[125] – a broad description that encompasses linear films, productions in other media, and a growing body of interactive documentaries made for the web, mobile devices, festival exhibitions and even installations in public spaces.

One of the drivers of this transformation was Tom Perlmutter, who joined the NFB in 2002 as Head of English Programming before becoming Commissioner in 2007. When he started the job, Perlmutter was concerned that the organization had lost sight of what made a "public producer" distinct and necessary in the digital age, particularly at a time when commercial broadcasters (as well as public media organizations like the Canadian Broadcasting Corporation) were also creating a broad range of documentaries for Canadian television audiences:

> I was thinking through [the NFB's] necessity. On what basis do we argue for a public institution? It was a real question. I didn't come in assuming we need public institutions. Everything was on the table for me... Why do you need a public producer to produce television? There was a very dynamic private sector – they were doing really well. A whole range of so-called important Canadian topics were being covered by a whole range of things with all the specialty channels and cable channels that had come along since the mid-80s, whether it was history or lifestyle, or science or technology, it was being done. On what basis then do you argue for having this public producer make television?[126]

At its founding, the NFB was the only organization with the resources to professionally produce and distribute documentary films to the Canadian public. In the intervening decades, however, documentary production and distribution had expanded dramatically. Perlmutter recognized that, despite historically strong

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[125] "Imagine, Engage, Transform: A Vision; A Plan; A Manifesto (2013-2018)," 5.
[126] Perlmutter, interview.

support from the Canadian public, the NFB needed to transform in order to justify its existence in the digital era.

The NFB's 2008-2013 and 2013-2018 Strategic Plans are the best expressions of the philosophy behind this digital transformation. Written by Perlmutter, the documents outline a bold manifesto that emphasizes the NFB's legacy and reaffirms its original raison d'etre: producing artistic works that take creative risks and serve the public interest in ways that the commercial media industries cannot. For the NFB, it is necessary not only to differentiate itself from other media producers, but also to push the envelope, providing "cultural leadership both domestically and internationally" and creating public goods in what they call "areas of market failures."[127] This articulation of the NFB's mission rests on two assumptions: the current media landscape inadequately addresses the needs of the Canadian public; and artistic experimentation can help address these failures.

One of the first major steps towards differentiating the NFB was an effort to develop audiences on digital platforms, first by digitizing the NFB's entire film collection and building a web-based "Screening Room" that made titles accessible for free to audiences both inside Canada and abroad. This ambitious initiative was undertaken without any additional funding, and thus required significant restructuring of the organization and the development of entirely new technical infrastructures. As a result, it was met with some resistance from within the NFB itself. Many filmmakers initially objected to offering their content for free online, but Perlmutter insisted that the portal would be a step towards building a deeper

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[127] "NFB Strategic Plan 2008-2009 to 2012-2013," 5.

connection with the audience – "creating engaged, authentic relationships" – and ultimately a more sustainable funding model.[128]

This desire for a "deeper connection" reflects another institutional anxiety facing the NFB and many other legacy media organizations. New technologies have allowed audiences, in Perlmutter's words, to "bypass the gatekeeping constraints imposed by movie houses or television" and "set their own parameters for engagement with content."[129] This shift in power, he argues, "can be profoundly disturbing for creators, who have always operated in environments that allowed them to control their work and its relation to audiences."[130] Though the NFB's articulation of its core mission has remained relatively stable through these digital transitions, it also seems to recognize the need to fundamentally reconsider the institution's relationship to audiences and the public it was established to serve.

An example of this is the bold suggestion in the 2013 Strategic Plan that the NFB's work can help "redefine the nature and purpose of the public sphere for the 21st Century."[131] The document proposes that the NFB fulfill its public interest mission not only by informing and educating audiences, but also by using digital technologies to produce documentaries that are "creative, dialectical and open-ended about who speaks, who creates, about what, for whom and to what end."[132] According to Perlmutter, "we must confront a very different idea of audience," one that moves beyond a conception of audiences as passive receivers to one in which

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128 Perlmutter, interview.
129 Perlmutter, "The Interactive Documentary."
130 Ibid.
131 "NFB Strategic Plan 2008-2009 to 2012-2013."
132 "Imagine, Engage, Transform: A Vision; A Plan; A Manifesto (2013-2018)," 12.

they are "co-creators, citizens, activists, teachers, learners, collaborators, fans and so on."[133] He argues that, in the digital era, the relationship of a public cultural organization to its audience needs to be "embedded in some notion of empowerment, some notion of connection, and to make oneself truly part of these communities, in whatever ways we can."[134]

From this perspective, the role of the NFB begins to shift from the Griersonian tradition of documentary – "creating common democratic, civil values" and explaining "changing cultural and social realities" – to one in which documentaries become "new forms of public space"[135] for creative expression and discourse. These emerging notions of impact have roots in earlier experiments like Challenge for Change, but they also reflect a newfound sense of the artistic and political potentials of audiences' more active engagements with digital media in what Yochai Benkler called the "networked public sphere."[136] At the same time, these aspirational goals reflect an underlying anxiety about the NFB's need to differentiate itself and justify its necessity in the digital age. The challenge implicit in the Strategic Plans, then, is to translate rhetoric of "empowerment" and "connection" into "innovative and distinctive audiovisual works and immersive experiences" that both help rebrand the NFB while also meaningfully fulfilling its social purpose.

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[133] Perlmutter, "The Interactive Documentary."
[134] Perlmutter, interview.
[135] "Imagine, Engage, Transform: A Vision; A Plan; A Manifesto (2013-2018)," 17.
[136] Benkler, *The Wealth of Networks.*

Reinventing Challenge for Change

In 2005, the National Film Board commissioned a 50-page research report about the possibilities for a documentary film about St. Michael's Hospital in inner city Toronto. Though it indicated several strong possibilities for feature-length documentary subjects, Perlmutter wanted to approach the subject in a "radically different way."[137] NFB producer Peter Starr sent the report to the documentary director Katerina Cizek and requested a meeting. Cizek, who had co-directed *Seeing is Believing*, a film about activists around the world using digital video to advocate for human rights issues, was initially skeptical that her background and interests were a good match for an "emergency room documentary." She took the meeting anyway, and was surprised when the conversation turned quickly to Challenge for Change and the possibilities of reinventing the initiative in the context of the digital age. Cizek's skepticism turned quickly to excitement:

> What was so brilliant about [Challenge for Change], I thought, was the scope of it and the successes and the failures. The fact that it was just so experimental and the mandate was not about even creating finished films. The mandate was to see how these technologies and these methodologies might impact communities and policy and government-citizen relations. I just thought that was absolutely revolutionary and fascinating. I felt really invigorated by that possibility, to be working in an environment where those are the things that matter rather than some of the standard barometers of success when you fund something, in a TV business model for example.[138]

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[137] Perlmutter, interview.
[138] Cizek, interview.

With rise of social media networks and a growing number of camera-enabled cellphones, it seemed like an ideal moment to revive a model that was built around the idea of making films *with* people rather than *about* them.

When *Filmmaker in Residence* was officially launched later that year, Cizek and her main collaborator, NFB producer Gerry Flahive, decided not to begin the project with the final goal of making a linear documentary. Instead, they started with a focus on process, thinking creatively about how a documentary filmmaker might collaborate with various communities within the hospital. To ground this process in the needs of communities, Cizek spent months meeting doctors, nurses, patients and administrators at St. Michael's before filming anything.[139]

One of the first initiatives to get off the ground was "Young Parents with No Fixed Address," a participatory photography program involving pregnant teen mothers who were homeless. Taking inspiration from the "Photovoice" method, Cizek trained the young women to create photo blogs of their lives and asked them reflect on their experiences in regular meetings. Cizek worked with a suicide prevention support group to create animated films that reflected their experiences while protecting their privacy. Yet another initiative established a "video bridge" between nurses and patients, which involved filming interviews with each group, screening them for the other and inviting responses. Much like the Fogo Process, which established channels of communication between the islanders and government officials, the purpose of this initiative was to improve communication

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[139] Ibid.

between patients and caregivers by exposing stereotypes and assumptions on both sides of the healthcare system.[140]

Cizek describes these various methodologies as "interventionist media," borrowing from the methods of interventionist research and participatory action research, which attempt to produce knowledge and understanding while simultaneously improving the social conditions being studied. According to Cizek, "We have to think about the resources, the expertise that we bring as documentary makers. How can it help to build and sustain the things that may sorely be lacking in the communities that we work in… it's looking at the methodology as a way to transform social relationships."[141]

This approach represented an inversion of the standard documentary model, in which filmmakers get "access" to a community in order to film it for a period of weeks or months, and then months or years later release an edited film that is screened for a general audience. While this traditional relationship between filmmaker and subject can be deeply collaborative in certain contexts, Cizek's approach begins with an ethical shift that places the needs and goals of the subjects before the needs of the film or the audience.

The central objective of *Filmmaker in Residence*, according to Cizek, was to "affect real, tangible, social and political change" by collaborating with her subjects to produce "media that could be used as a tool to advance, enhance and achieve their distinct goals."[142] In the case of the "Young Parents with No Fixed Address"

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[140] Ibid.
[141] Ibid.
[142] Cizek, "Manifesto for Interventionist Media - Because Art Is a Hammer."

media workshops, a more specific goal was providing women with opportunities to develop media literacies that build self-esteem, creative expression and ability to communicate their needs to healthcare providers, while producing media that may serve as a "a catalyst for future initiatives which influence housing and health policies."[143] In the case of the video bridge, impact might be determined by the project's ability to improve communication between nurses and patients, which in turn might lead to improved healthcare outcomes.

However, as we saw in Grierson's critique of the Fogo Project, this approach can introduce a fundamental tension between serving the tangible needs of local subjects and producing media that can speak to general audiences, particularly within an institution whose default is the latter. An example of this tension is the fact that Cizek wanted to guarantee privacy and anonymity to the young teen mothers that participated in her media workshops. "Meanwhile," she explains, "it's funded by the National Film Board of Canada, essentially a media organization. If it's funded by taxpayers, what do we say? Do we say we did this great participatory workshop, but you can't see it?"[144] Regardless of the impacts the workshops may have produced on the ground, it was still important for the NFB that Cizek produce media about her work that could be shared with a general audience.

Cizek and Flahive decided to address this challenge by creating a multimedia website that would tell the story of her time at St. Michael's and the impact her work created. To produce the piece, they hired Rob McLaughlin and Loc Dao, who had worked together in an innovative digital unit run by the Canadian Broadcasting

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[143] Cizek, "Filmmaker in Residence - I WAS HERE Research Proposal."
[144] Cizek, interview.

Company's Radio3 before starting their own interactive agency, Subject Matter.[145]

The website launched in 2008 and was marketed as the "first online feature-length

documentary" – or what is now more commonly called a "web documentary." It

featured ambient sound design, full screen video and an interactive Flash-based

interface that gave users control over how they advanced through the story. It

received critical acclaim and went on to win a Webby Award and a Rockie Award at

the Banff Television Festival, which helped draw greater industry attention to the

NFB's fledgling digital experiments.

In 2010, inspired by the success of *Filmmaker in Residence*, Cizek and the NFB

launched another ambitious multi-year collaborative documentary called *Highrise*,

building on the same iterative, community-based process to tell the stories of people

living in residential high-rise buildings around the world. Like its predecessor,

Highrise was broken up into multiple chapters and initiatives with outputs on a

wide range of platforms, including linear films, photo exhibits, live events,

installations, radio broadcasts, workshops, academic research and interactive web

documentaries – each of which reached different audiences with different impacts.

One of its most successful chapters was *Highrise: One Millionth Tower*, which was

conceived originally as a short documentary film about a participatory urban

planning workshop held between architects and residents of a high rise building on

the outskirts of Toronto. As the project evolved, it ultimately became an immersive

web documentary that documented both the process itself and the residents' vision

of urban renewal. The team used WebGL, a novel technology that allowed users to

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[145] McLaughlin, interview.

explore a 3D world within the browser. By partnering with Mozilla and Wired on the launch, the project was able to attract a broad audience, many of whom were technologists interested in the novel use of WebGL. According to Cizek, this global attention also helped amplify impacts locally:

> Because of the technology we used, because of the way we told the story, it became something that audiences around the world were inspired by. It became symbolic. It worked on many, many levels. That project had really specific ramifications within the community, both at the high rise itself, but also within Toronto in really profound ways. It got to the provincial level of government, It affected white papers at the municipal level. It really had an impact, and it had a profile, both I think logistically and politically.[146]

Some of the indirect impacts of making *Highrise: One Millionth Tower* included the building of a new playground, the formation of a tenant's association, improved resident-landlord relations, and United Way's commitment to make the community a demonstration site for its $1 million Tower Neighborhood Renewal Project. On a broader level, the web documentary helped convince the provincial government's Minister of Transportation and Infrastructure to commit to the tower renewal process.[147]

Like *Filmmaker in Residence*, the success of *Highrise: One Millionth Tower* demonstrated the possibility of a documentary practice that balanced between engaging subjects in a participatory media-making process that had tangible local impacts and translating that experience into a story that could still reach and affect general audiences. The open-ended, collaborative and multiplatform nature of the

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[146] Cizek, interview.
[147] Ibid.

two projects enabled them to integrate these seemingly divergent theories of change. On the local level, one set of impacts is driven by the methodological innovation of working collaboratively with communities to identify needs and potential solutions through a hands-on process of media making. On a more global level, the web documentaries that resulted from this process introduced artistic and technological innovations – such as the use of ambient sound design or WebGL 3D interface to create a more immersive user experience – that helped draw attention to stories that might have reached a smaller audience if presented in more conventional formats. In addition to these social impacts, both projects had important institutional impacts. The awards and critical acclaim they garnered helped bring the National Film Board greater industry recognition, while also building capacity for more experimentation with the artistic and social potentials of documentary storytelling native to the Web.

Yet this wide range of impacts also raises questions about how to evaluate them – and which impacts matter most from an institutional standpoint. Since Cizek's "interventionist media" approach allows her to deeply understand the context and her initial "audience" is relatively small and local (usually her subjects themselves), the impact of such projects – at least in the short term – can be observed directly by the facilitators through interviews, discussions, skills assessments and other qualitative measures that might used in related forms of social work. What's generally more difficult to track is whether or not these programs produce long-term impacts, such as the young women continuing to produce media or becoming better advocates for themselves or others.

On the other hand, the impact on audiences reached by the two web documentaries can only be interpreted via more abstract measures like the number of unique visitors, time on site, press coverage and social media activity – the same metrics used by the television and advertising industries. As a publicly funded organization with a mandate to "reflect Canada to Canadians," the National Film Board's default might be to privilege the latter set of attention-based metrics, which are easier to capture and report, as well as the institutional impacts of awards and prestige. These are the kinds of impacts typically expected from media projects, making them easier to summarize and communicate, particularly in political settings that tend to favor quantitative data. Furthermore, impact metrics based on attention and prestige make different projects more *comparable*, which is critical for an organization that releases hundreds of documentaries each year. This kind of institutional bias makes it easier to scale up work like web documentary production and more difficult to scale up community-based work that has more qualitative impacts.

Interactive Studios

A year after the publication of the 2008-2013 Strategic Plan, the NFB continued its experimentation with the Web as a medium for interactive storytelling. Collaborating with an interactive agency, Jam3, they produced *Waterlife*, a web documentary that served as a companion site to a film about environmental issues in the Great Lakes region. Much like the *Filmmaker in Residence* web documentary, *Waterlife* is built around an elegant Flash interface and

uses cinematic techniques like ambient sound design to create a more immersive experience. Users are given a simple prompt – "Water is…" – followed by a list of keywords like Fishing, Poison, Bottled, Power, Healing and Musical. Clicking on each of these words launches a corresponding multimedia vignette that combines video, narration and text to explore various historical, ecological, political and economic dimensions of the Great Lakes.

This kind of interactive, nonlinear approach to narrative – what Hart Cohen calls a "database documentary"[148] – presumably allows users to approach these intersecting issues based on their individual interests and consume as much or as little of the available content as they would like. This enables individual users to have a far greater range of experiences than a "one size fits all" linear documentary film produced for broadcast television. *Waterlife* was hailed as a major success, achieving critical acclaim and attracting more than 2.1 million page views from 450,000 unique visitors.[149] It seemed as though the NFB had found a new formula for reaching and engaging audiences on the Web with dramatic visual storytelling.

In 2010, the NFB began a more aggressive expansion into interactive documentary production. Rob McLaughlin and Loc Dao were hired to set up a dedicated Interactive Studio in Vancouver. A second French language Interactive Studio was established in Montreal, led by Hugues Sweeney. To make this possible, the NFB redirected money away from the production of linear documentaries,

[148] Cohen, "Database Documentary."
[149] "Waterlife."

devoting approximately 20% of its total production budget to interactive

documentaries.[150]

In the five years since the launch of *Waterlife*, the two Interactive Studios

have released approximately 50 interactive documentaries, each of which is built

around different interfaces, technologies and logics of audience engagement. Many

of the NFB's interactive documentaries follow the "database documentary" model,

using an interactive, nonlinear structure that gives users some degree of control

over the order in which they experience content, the amount of time they spend

with it, or the depth with which they explore a given topic.

One prominent example of this approach is *Welcome to Pine Point*. Produced

by Paul Shoebridge and Michael Simons – a creative team also known as The

Goggles – the project tells the story of a now-abandoned mining town in Canada's

Northwest Territories, weaving together first-person narratives, archival

photographs and video, and an ambient soundtrack into a nostalgia-tinged

multimedia scrapbook. Although the core narrative structure is essentially linear,

Pine Point's interface allows users to advance at their own pace and pause to take a

"deeper dive" on certain details – for example, by flipping through a virtual photo

album. A more nonlinear example of this strategy is found in *Seven Digital Deadly*

Sins, an NFB co-production with The Guardian that explores the downsides of users'

online habits through short films and surveys that can be accessed in any order.

Another set of techniques used by these new NFB documentaries include an

effort to tap the participatory potentials of the Web, asking users to contribute their

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[150] Perlmutter, interview; McLaughlin, interview.

own content to a documentary. *Journal of Insomnia*, for example, invited users to make a late night appointment to access a web portal that allowed them to submit videos, drawings and written accounts of insomnia, as well as explore the stories of others. *Primal* is another project from the Montreal studio that invites users to "contribute to the making of an infinite scream" by uploading a video of themselves screaming, which are then overlaid with filters and stitched together into an ever-expanding user-generated montage.

A third major technique in the NFB's interactive documentaries is personalization – projects that adapt to the user's context or background in an attempt to make content more relevant or resonant. Usually these projects follow a more linear structure and require less user input or choice than nonlinear interactive documentaries. For example, *Bear 71*, one of the NFB's most popular interactive documentaries, is constructed around an eighteen-minute audio story about a grizzly bear being collared and tracked in Banff National Park. As this story plays, the project inserts a live image from the user's webcam into an abstract, interactive grid of data points that represents the various ways the park's animal life is surveilled by humans using digital technology. Two more recent examples of personalization include *In Limbo*, a 30 minute film about Big Data that overlays data pulled from the user's social media feeds, and *Do Not Track*, an episodic web series about privacy and the web economy that periodically prompts users to answer questions about their digital media habits and tracks their behavior over time.

One of the NFB's most ambitious interactive documentaries, *Fort McMoney*, combines elements from each of these interactive strategies and add the additional

dimensions of gameplay and simulation. Directed by David Dufresne, this "documentary game" allows users to navigate through the oil boomtown of Fort McMurray, Alberta, interview residents and vote on referenda that influence a virtual simulation of the real-life city. The first person game mechanic allows users to explore the environment, characters and other story elements in a nonlinear way based on their own interest. The game's dashboard, which features referenda and open debates on key social and environmental issues, invites users to participate in the story by contributing their own perspective. The episodic structure requires that users register accounts and return periodically to play the entire game, allowing the game to capture a user's history and address them in a personalized way.

In addition to these strategies, one element that sets *Fort McMoney* apart from other NFB interactive documentaries is its attempt to simulate possible futures for the city – and give players to the ability to directly shape those futures. In order to create this simulation, the team worked with an economist to develop a spreadsheet that modeled the environmental, social and economic factors influencing the development of Fort McMurray and the ways that these dimensions are interrelated. This model allowed them to speculate, for instance, about how a policy change like nationalizing the oil industry might alter the environmental impact on Fort McMurray and the surrounding area. Over the course of *Fort McMoney*'s four episodes, which were released at monthly intervals, players were able to debate and vote on a series of referendums that over time influenced the balance between the social, economic and environmental health of the virtual city. For Dufresne, this combination of interactive techniques is meant to overcome what

he saw as "green fatigue" – the idea that the public had started to tune out books, movies or journalistic articles about environmental issues – by involving users directly in the story and enabling them to develop a more holistic understanding of the systems involved.[151]

Evaluating Impact

In just five years, the NFB's interactive productions have helped define the interactive documentary field by experimenting with a wide range of interactive storytelling techniques – including nonlinear narrative structure, prompts for user participation, personalization of content and simulation of complex systems – in addition to the methodological innovations underlying Katerina Cizek's community-based documentaries. Given the range of institutional goals behind the National Film Board of Canada's investment in interactive documentaries, there is no single, straightforward way to measure the impacts of this work or evaluate its success. On one level, the NFB's strategic shift to digital platforms has been motivated by a need to differentiate itself from other organizations, building and demonstrating its capacity for innovation and "cultural leadership." On another level, the organization is seeking to develop more "engaged, authentic relationships" with audiences and produce creative works that – in Perlmutter's words – are "embedded in some notion of empowerment, some notion of connection."[152]

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[151] Dufresne, interview.
[152] Perlmutter, interview.

Without a doubt, the NFB's interactive documentary work has consistently

pushed the artistic boundaries of new technologies, winning awards, critical acclaim

and industry recognition at film festivals and conferences around the world.

However, there is less certainty about the ability of these interactive documentaries

to meaningfully connect with audiences. In contrast to Cizek's community-based

"interventionist media" projects, which begin with a focus on the subject, most of

the work produced by the NFB's Interactive Studios has been designed primarily to

reach general audiences. As such, they are still partly rooted in the Griersonian

tradition of documentary, in which informing and entertaining audiences is

paramount. At the same time, each of them experiments with giving the audience a

greater degree of control over the narrative experience than they would have with a

linear film, and many create spaces for participation and public discourse that

reflect a theory of change in which active engagement is critical.

A fundamental assumption behind this work – perhaps rooted in early

successes with web documentaries like *Filmmaker in Residence* and *Waterlife* – is

that these new forms of engagement can help both attract audiences and enhance

their experience of the story. Yet, as most legacy media organizations have

discovered, building loyal audiences on digital platforms can be far more

challenging, both because of the virtually unlimited supply of content competing for

users' attention and the ways that intermediaries like Facebook and Google now

direct that attention in unpredictable ways. Although producing documentaries

native to the Web has allowed the NFB to distinguish itself and bypass the

gatekeepers of broadcast television, it has also meant building audiences from

scratch with each new interactive work. According to Jean Sebastien Defoy, until recently a Marketing Director at the NFB, interactive documentaries are "not driving the audience as we want it to. We haven't figured out how to get people to go from one to another to another."[153] This suggests an underlying tension between the organization's goal of fostering artistic and technological innovation, which adds prestige to the NFB brand, and its goal of developing authentic, engaged relationships with the Canadian public.

Rob McLaughlin, who left the NFB to work for the newspaper publisher Post Media, points out that the organization's relationship with audiences has always been complicated. The NFB's animation unit, for instance, has long produced experimental films that have won awards and helped advance the technology of animation, but they reach relatively small niche audiences. McLaughlin sees parallels between this legacy, in which technological and artistic innovation are privileged over audience reach, and the work being incubated in the Interactive Studios:

> Arguably that's the core debate about the Film Board. Why is it that the Film Board supports auteur animation when no one else does? [Animation] doesn't have a big audience reach. It doesn't carry social issues and yet it's this unique application of technology – specific technology that the Film Board takes great pride in, especially with the Oscars, where we had a nomination. They take great pride in this, yet no one watches it. It only works for a very tiny amount of people. In some ways, there are a lot of similarities to the interactive work that we do. It hasn't been, to date, hugely mainstream. It hasn't reached mass audiences, but it is loved by many for its unique and artistic take on social issues.[154]

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153 Defoy, interview.
154 McLaughlin, interview.

His observation points not only to the NFB's precedent of producing experimental work for niche audiences, but also the ways in which institutional impacts like the prestige of awards can help justify continued investment even in the absence of mainstream audiences.

What about the audiences that interactive documentaries *are* reaching? Perlmutter believes that innovation requires getting out of ahead of audiences in order to "deliver something that they'll want, when they connect with it, but they can't tell you they want it because it doesn't exist."[155] However, since interactive documentaries generally demand more from a user than traditional formats, there is a danger that they become less accessible, even for the audiences that discover them via social media or the NFB's website. Or conversely, they may be better at attracting audiences specifically interested in the form and technology, such as web developers, designers and filmmakers.

Despite their critical acclaim and influence on other creators, Perlmutter's theory that audiences will want more interactive documentaries once they connect with them remains largely untested. Asked about measuring audiences for interactive documentaries, Hugues Sweeney – head of the Interactive Studio in Montreal – acknowledges that "We're just bad at it. We're just bad at setting the goals straight from the beginning. We use Google Analytics. Each time we release a project, we spend 5 days glued on the screen and just looking at the real time view." For projects that rely on user-generated content, the NFB will look at metrics such as the percentage of total users that were motivated to contribute content, in

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[155] Perlmutter, interview.

addition to standard analytics like unique visitors and session duration. Sweeney

would like to see the organization "be a little bit better at building expectations into

the projects" by realistically matching metrics to each project's goals.

Perlmutter acknowledges that these metrics for interactive documentaries

are generally insufficient and that "a great deal of work still needs to be done on the

cognitive, emotive, psychological and physical forces at work in the interactive

experience."[156] Defoy, who was responsible for marketing the NFB's interactive

documentaries – saw his job as "not just about getting someone to see our work, it's

understanding *how* they see it."[157] However, he felt that conventional analytics like

page views, visitors and session duration were unable to provide this kind of insight

into the user experience:

> With linear content you expect people to go until the end… but with a
> project like this where at every turn of the road there is a decision and
> people can drop out, I would love to be able to have full analytics of
> how people are behaving, and what makes them tick? Is it the content
> itself? Is it the navigation? Sometimes the content is only half of what
> we're trying to bring out. The medium, the navigation, the aesthetic,
> the environment – this is also what we're trying to do, and this is
> much more difficult to measure.[158]

The lack of understanding about how individual users experience interactive

documentaries makes it difficult to effectively evaluate their overall impact,

particularly since users can have a much wider range of experiences with the same

project. This suggest a need to deploy tools that better track a user's movement

through a site, but perhaps more importantly the need for qualitative research to

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[156] Perlmutter, "The Interactive Documentary."
[157] Defoy, interview.
[158] Ibid.

better understand not only how interactive and participatory engagements affect the experience of a documentary story, and by extension how they might translate into social impacts like learning, empathy or other forms of civic engagement.

These questions about the relationship between user experience, audience development and social impact will become even more important as the NFB faces the pressure of steadily shrinking budgets. Since the release of *Filmmaker in Residence* in 2007, the organization's production budget has shrunk from $54 million to an estimated $38 million in 2014-15. During the same time period, the interactive documentary field has expanded and matured, as many other organizations have begun experimenting with the same technologies and techniques. For Defoy, 2014 was a tipping point year that demonstrated "how quickly people have caught up" with the NFB's interactive productions. "We see it because we used to be the de facto winners every time," he says, referring to the various awards for innovation in interactive storytelling. "And now we have very serious competition."[159] McLaughlin sees this as a significant challenge for the NFB's Interactive Studios:

> When you've got Google and Samsung and places like that playing in the media space, and seeing value in demonstrating innovation, then I think the Film Board is going to be in a much more challenging place going forward... because innovation for innovation's sake is not the game that they should be in.[160]

As other institutional players begin doing R&D in interactive media, it will become harder for the NFB to use interactive documentaries to differentiate itself.

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[159] Ibid.
[160] McLaughlin, interview.

If the NFB wants to make the case that its interactive documentary productions serve the public interest and strengthen the public sphere, it needs better ways of testing and articulating the social value of this work without constraining the "imaginative exploration" it represents. Defoy believes the combination of shrinking budgets and growing competition will force the NFB to confront the tradeoffs between experimenting with the form and reaching audiences, particularly in terms of how interactive documentaries are evaluated and how budgets are allocated:

> What I see happening is more questions being asked with more rigor. I think that when you're in the exploration phase, the discovery phase, you need to be allowed to fail... because you're trying to develop a new genre. But now the interactive world has matured. It doesn't mean that we're going to spend less, but we're probably going to be more rigorous as to how we spend it. And serious questions are going to be asked about the equilibrium between discovery and audiences. We need to more and more combine the two because we're not making projects for groups of 25 people.[161]

However, if the NFB shifts its strategic focus from formal innovation to audience development, there is a danger that it will emphasize those impacts that are most familiar, measurable and predictable – unique visitors, page views, social media activity – while losing sight of social impacts that fall outside both of these categories.

As Cizek's work highlights, the potentials of a networked digital media environment can be found not only in ability to create interactive interfaces with documentary content, but in the possibility of reimagining the methodological

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[161] Defoy, interview.

foundations of documentary storytelling. In her words, we can "drive forward in old methods with new technologies" or treat technologies like the Internet and mobile phones in the same way the activist filmmakers of the 1960s and 70s treated video and 8mm – as challenges to "rethink ethics, rethink our relationship with the subject, rethink some of the core principles of journalism and documentary."[162] This radical vision requires going beyond the mass media's statistical measurement of audiences – as Low put it, "For X dollars you reach Y people with Z impact" – and continuing to experiment with ways that interactive documentary might be used to more fundamentally reshape "the nature and purpose of the public sphere."

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[162] Cizek, interview.

CHAPTER 3
POV

In this chapter, I will describe the nascent digital experiments happening at POV, an award-winning series on PBS that has become American television's longest running showcase for independent documentaries. Founded by producer Marc Weiss in 1988, the series is produced by a New York-based nonprofit, American Documentary Inc., although the industry routinely refers to the organization itself as "POV."[163] As a public media organization devoted to documentary film, POV shares many of the same goals and objectives as the National Film Board, providing artistic or personal perspectives on social issues that help stimulate public discourse without driving a particular political agenda. Whereas the NFB has historically identified as a "public producer," with much of its production happening in-house, POV functions more as a public broadcaster, curating an annual lineup of roughly a dozen independently produced documentaries that air weekly on PBS affiliate stations, helping the films reach a national audience of 3-5 million viewers.[164]

Although this broadcast audience is central to POV's understanding of its social impact, the organization also has a strong legacy of engaging audiences in public discourse through alternative channels, such as community outreach campaigns, educational distribution and online forums. POV was one of the first

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[163] "POV: Fifteen Years of Documentary Television."
[164] Ibid.

public media organizations to view the Internet as a platform for engaging audiences in conversations about social issues after a documentary's broadcast. As a result, the organization's "theory of change" reflects both the central importance of broadcast's audience reach – raising awareness about a social issue on a large scale – and the added value of deeper engagements through grassroots screenings, strategic partnerships and online forums for public discourse.

In the past three years, however, POV has begun focusing more resources on research, production and distribution of "standalone" interactive documentaries – that is, interactive features that are not connected to a broadcast film. Although most of POV's digital content has treated the Web as a platform for discourse around the broadcast of linear films, these investments in interactive documentary represent a recognition of the Web (and emerging digital platforms like virtual reality) as an opportunity to present documentary stories in new ways, reach new audiences and experiment with new technologies and modes of engagement.

Compared to the National Film Board, however, POV has been slower to build capacity for interactive production, in part because its budget is significantly smaller and its funding sources are more diverse. Roughly half of POV's annual budget of $3-4 million comes from a PBS broadcast license. The rest comes primarily from foundations.[165] The MacArthur Foundation has long provide operating support and POV's outreach campaigns and educational distribution have been supported by funders such as the Corporation for Public Broadcasting, the Educational

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[165] Licht, interview.

Foundation of America and the Fledgling Fund.[166] Despite these constraints, the POV

Digital department recently launched a series of hackathons in 2011 designed to

encourage independent filmmakers to experiment with interactive media and

collaborate with technologists and designers. In 2014, with a grant from the Knight

Foundation, POV also hired a Technology Fellow – the organization's first in-house

software developer – and began co-producing and distributing its first series of

"interactive shorts."

To date, these initiatives have been evaluated primarily in terms of their

institutional impacts – helping POV develop resources for independent creators and

build capacity for more ambitious interactive productions that will help prepare the

organization for a future in which the majority of its audiences are on digital

platforms. With a growing number of people streaming documentaries online, POV

may be in a position to use its visibility to help independent producers of interactive

documentaries reach wider audiences and generate public discourse in the same

way that its broadcast documentaries do.

High Impact Television

On December 18, 2014, the station serving public television's largest market,

WNET in New York, announced plans to move two independent documentary series

– *POV* and *Independent Lens* – from their regular Monday night primetime slot to a

secondary channel with smaller coverage area, replacing them with reruns of

popular arts programs that drives fundraising. The move immediate sparked an

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[166] Ibid.

outcry from the documentary film community.[167] More than 3,000 people signed an online petition to reverse the decision.[168] Television writer Norman Lear and other prominent critics accused the Public Broadcasting System (PBS) of neglecting its mission by chasing ratings with dramas like "Downton Abbey" at the expense of documentaries that represent the "heart of its public mission." By taking on critical, often overlooked social issues, Lear argued, the independent films airing on *POV* and *Independent Lens* help expand "freedom of expression for people whose voices are not easily heard in American media."[169] Furthermore, the scheduling move would create ripple effects, encouraging other stations to reprogram the shows and undercutting funding of independent documentaries from foundations, for whom "a robust distribution platform is crucial."[170]

In response, the station delayed implementation of the plan and scheduled a nationwide "listening tour" to meet with documentary filmmakers in several key cities. Four months later, public television executives committed to keep the shows in their existing time slots, along with an increase in their marketing support.[171] This political battle highlighted the often-precarious relationship between independent documentary filmmakers and the American public broadcasting system. It also underscored the growing importance of building audiences on the Web, where small organizations like POV can connect directly with audiences and distribution costs are lower.

[167] Sefton, "New York's WNET to Pull Documentary Showcases from Monday Nights on Main Channel."
[168] "Paula Kerger."
[169] Lear, "Is PBS Neglecting Its Mission?".
[170] Ibid.
[171] "WNET And PBS Agreement Keeps 'POV,' 'Independent Lens' in Primetime."

In fact, this precarious relationship was a major reason that POV was created in the first place. In the mid 1980s, founder Marc Weiss was inspired by the "bold, independent, point-of-view documentary storytelling" he saw appearing at film festivals at the time, but disappointed that these films weren't reaching wider audiences, largely because of the challenges of working within the fragmented public broadcasting system.[172] Writing in a booklet celebrating the 15th anniversary of the series, he notes,

> Although public television was the only place independent work had even a shot at a national broadcast, the public TV system didn't make it easy… With all of their skills and passions, independent filmmakers were not necessarily the best candidates to navigate the multiple bureaucracies of public television.[173]

After a series of conversations with FRONTLINE's David Fanning, Weiss became convinced that these films could find a sustainable home on public television and began setting up meetings with producers and public TV representatives. The organization got off the ground with support from the MacArthur Foundation, the Corporation for Public Broadcasting and a PBS distribution contract that ensured the independent documentaries acquired by the series would be broadcast on affiliate stations nationwide.[174] Although initially focused on acquisitions of finished films, POV would later begin to co-produce and offer editorial support for documentaries still in production.

POV prides itself on showcasing films that are both artistic and socially relevant, and that would otherwise be unlikely to find a large broadcast audience. Its

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[172] "POV: Fifteen Years of Documentary Television."
[173] Ibid., 3.
[174] "POV History Timeline."

organizational identity – much like the NFB's – is based largely on the distinction

between the independent documentaries it broadcasts and the more conventional

documentaries offered by "mainstream media" outlets. Weiss makes it a point to

contrast POV films with the journalistic documentaries that are more common on

both public and commercial television:

> While traditional journalism calls for 'objectivity' (a debatable
> concept), the most interesting indie docs are often the opposite:
> intensely subjective, made to represent a perspective that the
> filmmaker feels is missing or distorted in the mainstream media.[175]

In Weiss's view, independent documentaries could address these blind spots in the

mainstream media – what the NFB might have called a "market failure" – by

enlarging and enriching the public sphere with more diverse perspectives.

Indeed, since its founding, POV has made efforts to not only insert its films

into a larger media discourse via broadcast, but also to invite audience members

themselves to contribute to that discourse. Throughout the 1990s, POV's Ellen

Schneider helped pioneer a model of outreach and community engagement

campaigns known as "High Impact Television" that remains one of the central

aspects of the organization's work today. The model involves a systematic approach

to developing partnerships with grassroots organizations and creating resources

that connect "films to issues and issues to people."[176] POV's staff produces

discussion guides that partner organizations can use to facilitate dialogue with

grassroots screenings in relevant communities. They also create lesson plans for

educators that want to use POV documentaries in the classroom. While these

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[175] "POV: Fifteen Years of Documentary Television," 4.
[176] Ibid., 13.

grassroots and educational screenings reach fewer people than broadcasts, they are often more targeted audiences, including those directly affected by a particular social issue or those that have the ability to make a direct impact on it. For example, POV has conducted numerous screenings on Capitol Hill targeted at policymakers.[177] Over the long term, this has helped POV "create an audience that understands and uses independent media strategically and effectively."[178]

Despite the fact that POV distributes independent documentaries that are "intensely subjective," the organization is careful to distance itself from taking an explicitly activist stance on an issue, since much of its funding comes federal government sources that prohibit advocacy, including its PBS contract and grants from the Corporation for Public Broadcasting. This means that the materials POV produces to generate discussion attempt to take a neutral position by providing information, resources and references to organizations that both support and counterbalance the filmmaker's strong point of view. "A lot of it is really awareness," says Eliza Licht, POV's Vice Present of Content Strategy and Engagement. "Action is very exciting and we do have Take Action sections [in discussion guides] but really I think we've always seen ourselves as just helping to move those conversations along as much as we can."[179] For Simon Kilmurry, who served as POV's Executive Director from 2006 – 2015, this "neutral" position reflects a respect for the autonomy and intelligence of audiences as much as it does the imperatives of federal funding:

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[177] Licht, interview.
[178] "POV: Fifteen Years of Documentary Television," 13.
[179] Licht, interview.

> Just from my own instinct as an audience member, I don't want to be
> told what to do. I want to be able to process the information and then
> I'll come to my own conclusions. So we try and have respect for the
> audience in allowing them to process the information, to process the
> experience and then draw their own conclusions on what they want to
> do next.[180]

While POV avoids taking an explicit position on issues or driving towards a specific

outcome, the "High Impact Television" model is designed to create, on one hand, a

breadth of awareness at a national level (helping to raise an issue, reframe it or even

influence the agenda of other media outlets) and facilitating discussions and deeper

engagements with these issues, often by connecting local audiences to a range of

organizations working on a given issue.

In many ways, this twin strategy combines both Grierson's vision of

documentary as a tool for public education and the Colin Low's interest in using

media to bring together local communities and stimulate dialogue about issues

important to them. (One distinction worth noting, however, is that POV's campaigns

still focus on the *exhibition* of documentary films rather than a community-based

methodology for media *production* like Fogo Process or Cizek's interventionist

media.) POV's audience engagement strategies have greatly influenced the

development of the "Impact Industry" I described in Chapter 1, particularly as

foundations like the Fledgling Fund began to recognize the potential in what

Whiteman describes as the "coalition model" – filmmakers working with community

organizations to form alternative networks of distribution for documentaries that

can be linked more directly to action. Many of these campaigns became more

explicitly activist than POV's model, attempting to influence viewers' attitudes and

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[180] Kilmurry, interview.

behaviors or pushing a specific policy change. As Fledgling Fund's first impact put it, "We assume that if ads can sell products, visual imagery linked to a social justice narrative can sell social action, or political conviction."[181] POV's notion of impact has remained grounded in the idea of using film to open up a "public space" and discourse in which diverse perspectives can be voiced and heard.

Talking Back

In addition to pioneering the modern-day documentary outreach campaign, POV was one of the first public media organizations to build a presence in "cyberspace," experimenting with digital technologies to create a forum for audiences to discuss issues raised by broadcast of films. In a typewritten letter to POV's Online Advisory Group, written in 1993, Marc Weiss expressed his excitement about the democratizing potential of the Internet, writing: "Finally, the technology is available to start a real dialogue with TV."[182] When POV Online, the precursor to POV Digital, officially launched in the Summer of 1994, viewers were invited to send email comments at the end of broadcasts and participate in hour-long forums held in AOL's "Center Stage" chat room. According to an assessment report published later that year, the purpose of the program was "to test the potential of computer networking to encourage viewers to rise up from their couches and talk back to their television sets."[183]

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[181] Barrett and Leddy, "Assessing Creative Media's Social Impact," 2.
[182] "POV History Timeline."
[183] Adams and Goldbard, "The P.O.V. Online Experiment," 4.

That same year, POV launched a related initiative called "Talking Back."

Taking advantage of the growing ubiquity of home video cameras, POV allowed

viewers to send "video letters" in response to documentaries, which were edited

and included at the end of future broadcasts. In 1995, it expanded on this concept,

producing an entire "user-generated" program called "Two-Way TV" after receiving

1,000 responses to *Leona's Sister Gerri*, a film about an abortion-related death.[184]

"Talking Back" emerged alongside similar experiments with broadcasting amateur

video on national television, like BBC's Video Nation.[185] Much like the experiments

in participatory media of the 1960s and 1970s, these initiatives saw more accessible

media technologies as an opportunity to bring new voices into the public sphere,

granting more agency to audiences and subjects.

As the Web's popularity grew, POV began to use the medium as a tool to

promote broadcasts and offer ancillary content around films, in addition to inviting

discussion about the issues they raised. The organization's first companion website

was produced in 1996 for the film *Just For The Ride*.[186] These sites would generally

include articles, short video clips, interview transcripts and links to additional

resources – based on the premise that these materials could help interested

audiences engage more deeply in the story or issue represented in the film.

Television was still privileged as the primary medium for conveying the story itself,

while the Web was seen as a way to engage viewers before and after a film's

broadcast.

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[184] "POV History Timeline."
[185] Carpentier, "The BBC's Video Nation as a Participatory Media Practice Signifying Everyday Life, Cultural Diversity and Participation in an Online Community."
[186] "POV History Timeline."

POV also continued to experiment with web-based channels for audience participation, such as *Re: Vietnam*, a companion website for the film *Maya Lin: A Strong Clear Vision* that invited veterans to submit testimonies about how the war had shaped them.[187] Remarkably, according to Kilmurry, the project remained one of POV's most visited sites for almost a decade – "even in its very old, almost quaint format."[188] This success points to the potential "long tail" impacts of sites that effectively target niche communities. Similar to "Talking Back," it also marks a subtle shift from treating audience perspectives as "commentary" around films to featuring them as the content itself.

In 2002, POV launched *Borders*, a three-part multimedia series that represented its first experiment in interactive storytelling produced exclusively for the Web. The program combined user interaction with participatory elements in an attempt to "pioneer a new form of public dialogue."[189] It marked the first time POV approached the Web as a storytelling medium unto itself rather than a place to promote broadcasts and generate discussion. Although it garnered POV its first Webby Award, *Borders* proved to be expensive to produce and attracted relatively small audiences.[190] After the third episode was released in 2006, POV ceased to produce interactive documentaries and refocused its digital efforts on building companion sites and streaming films online.

POV's early digital experiments were intended to deepen audience engagement and public discourse, usually in a way that supplemented the

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[187] Ibid.
[188] Kilmurry, interview.
[189] "POV History Timeline."
[190] Kilmurry, interview.

experience of viewing films on broadcast. However, the challenge of building audiences for standalone interactive projects like *Borders* only underscored the importance of the broadcast audience as the foundation for this discourse and the basis for POV's understanding of its impact.

Pasteur's Quadrant

In 2011, Adnaan Wasey became the Executive Director of POV Digital. The department consisted of only two people (out of a staff of roughly 30) and its primary responsibility was to maintain the series' website and manage online streaming of its films. In the five years since the last episode of *Borders* was released in 2006, the Internet had transformed dramatically. Broadband access became more common. Two billion more people became internet users. Social networking sites like Facebook and video distribution platforms like YouTube helped quickly usher in an era that Tim O'Reilly dubbed "Web 2.0."[191] Particular for younger internet users in Western countries, interactive screens like laptops and mobile phones began to occupy a growing portion of everyday media engagements and draw attention and financial resources away from traditional media like broadcast television and newspapers. For POV, this initially meant that online discussion around films began to shift from comment sections on their own companion sites to social networking sites like Facebook and Twitter, which had become default spaces for public discourse.[192] However, the organization had remained focused on broadcast films

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[191] O'Reilly, "What Is Web 2.0."
[192] Licht, interview.

and audience engagement campaigns, rather than continue experiments like *Borders* that used the Web as a medium for new forms of storytelling.

Coming to the organization with a background in software development and business, Wasey realized that POV had "a massive opportunity to engage people in the format of the Web, but we weren't doing anything about it."[193] The ancillary content offered on companion sites, he says, was "no longer having resonance" with audiences, so he turned his attention to the growing creative potentials of the Web. As Wasey developed a strategy for the department, he was focused on how a small organization like POV could compete with Silicon Valley's enormous influence:

> How do we do play the game of the Web when we're competing against massive budgets and giant staffs and lots of history of innovation, and also do it in a way that's right for public media? Because we don't need to duplicate what someone else is doing. We just need to do it in the right way that's serving the public in the best way possible.[194]

Around the same time, independent documentary filmmakers were becoming increasingly interested in producing interactive work, often as extensions of linear documentary projects. This work was supported by a small but growing ecosystem of public media funders and labs, including the Bay Area Video Coalition's Producers Institute, the Independent Television System's Project 360, and the Tribeca Film Institute's New Media Fund. Wasey wanted to support this kind of experimentation in a way that was consistent with POV's mission. He started by asking himself how POV Digital could "do the things that POV has done in the past and translate it into

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[193] Wasey, interview.
[194] Ibid.

digital experiences."[195] This meant creating what he calls "content for

conversations" – storytelling that helps stimulate an active discourse, both online

and offline, among media outlets and the general public. He also wanted to revive

the legacy of POV Online's earliest experiments by "using technology in ways that

have never been used before for storytelling." There was a sense that POV – and

public media in general – had fallen behind Silicon Valley in terms of its ability to

facilitate public discourse. Yet, as Web technologies matured and more independent

filmmakers began to experiment with it, Wasey saw an opportunity to "bring POV's

mojo back."[196]

One of the biggest challenges to fostering more digital innovation at POV was

finding a way to do it within the organization's limited budget. When he started the

job, Wasey made a long list of digital experiments that POV might undertake. He

then ranked them by cost and impact and focused on those options with the lowest

cost and highest potential impact. The first of these initiatives was a series of

"hackathons" – events that bring together filmmakers, technologists and designers

to prototype interactive media projects over the course of a weekend. Wasey was

particularly interested in the potentials of interactive video and wanted to use the

hackathons to explore "what we could do with it, what we could inspire people to do

with it, what we could learn from it, what we could potentially build off of and other

people we could work with."[197] These events were designed to help independent

filmmakers and other media makers find inspiration and learn more about

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[195] Ibid.
[196] Ibid.
[197] Ibid.

interactive production while developing new collaborations, storytelling techniques and in some cases larger projects. To date, POV has organized 7 of these events and roughly half of the prototypes created during them have been developed into completed projects.

For Wasey, the creative process that unfolds at the POV Hackathons is analogous what scientists call "Pasteur's Quadrant" – the place where basic science overlaps with applied science and engineering. The former is focused on understanding nature (for example, by mixing different chemicals to see how they react), whereas the latter is about finding specific uses and applications of that knowledge (for example, by developing plastics). Interactive documentary, as he sees it, is a field that exists at this juncture: technologists are like basic researchers, experimenting with the building blocks of the Web, while filmmakers are like engineers, attempting to develop new ways to tell stories on the Web that resonate with audiences. The success of the hackathons offer an illustration of the productive tension between these two approaches to technology. Both groups can accomplish great things on their own, Wasey says, "but you have to put them together in order to have this magical thing."[198] Though POV didn't yet have the budget to commission interactive documentaries, these events created an opportunity to inexpensively facilitate this creative process and use its reputation to help develop the field, while also expanding beyond its existing network of independent filmmakers by working with software developers and designers.

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[198] Ibid.

In February 2014, POV Digital was awarded a $250,000 grant from the Knight Foundation to help the organization extend "beyond television into the digital space."[199] Part of the money went towards funding a yearlong Knight Technology Fellowship. Despite having been nominated for seven Webby Awards and winning one, POV had never had a software developer on staff. Brian Chirls, a developer who had extensive experience working with independent filmmakers, became the first.

During his year at POV, Chirls used his broad mandate – "develop[ing] digital and mobile tools for nonfiction media makers"[200] – to work on software experiments in "problem areas" he saw in interactive media, while blogging his findings regularly and publishing open source code to Github. One of the problem areas he identified was the lack of flexible, creative tools for interactive documentary makers. "In non-interactive media, you have tools that are very powerful for aesthetic expression," he says, referring to post-production tools like color grading and graphics software. "I wanted to see how I could grant that same expressive power to a dynamic interactive piece."[201] Along these lines, Chirls expanded on a Seriously.js, a Javascript library that allows for dynamic filters to be applied to a web video by the viewer, and he created a "virtual camera" for

[199] Sherry, "American Documentary to Develop New Innovations in Digital Storytelling through Its Award-Winning PBS Series, POV."
[200] Ibid.
[201] Chirls, interview.

interactive documentaries and data visualizations, inspired by side-scrolling video games.[202]

Another area that Chirls explored was using interactive media to "meet the audience on their turf" in a media environment where filmmakers and broadcaster have less control. "Early cinema was successful because people didn't have a lot to do on Friday night," Chirls points out. "It doesn't work that way now because people have other options. You have to work a lot harder to get audience's attention."[203]

`Some of these projects were applicable to linear documentaries – for example, an adaptive cropping tool that allows filmmakers to publish video that can be automatically adjusted to screens of any size or aspect ratio. Other experiments explored the frontiers of interactive storytelling, such as the WebVR Toolkit, a code library that allows media makers with little or no software experience to create basic 3D environments that can be experienced with virtual reality headsets.[204] For Wasey, it was important that Chirls's experiments were always conducted with an eye towards their relevance to public media. In the case of the WebVR Toolkit, that meant pushing technological boundaries, but also starting a public conversation about how VR can be made more accessible, both to audiences and creators.

Money from the Knight grant was also allocated to help POV distribute six "interactive shorts," all produced by independent filmmakers and launched on the

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[202] Chirls, "A Virtual Camera for Interactive Documentaries, Inspired by Side-Scrolling Video Games | POV Films Blog | POV Blog | PBS."
[203] Chirls, interview.
[204] Chirls, "How Anyone Can Create A Virtual Reality Experience With One Line of Code."

POV website in September 2014.[205] When curating the series, Wasey was looking for

"bold and innovative" work, projects that "push the technological bounds at the

same time that have the storytelling within them."[206] Theo Rigby's *Immigrant Nation*

combines character-driven short films, data visualization and user-generated

content to tell the stories of different "waves" of immigration to the United States.

This allows users to get a broad quantitative view of the history of immigration

while also discovering the stories of individuals and contributing their own. *Living*

Los Sures, produced by the Brooklyn-based UnionDocs Collaborative, is a

community-based participatory documentary that uses a 1984 documentary about

Williamsburg as a starting point for a collaborative exploration of gentrification in

that neighborhood. *The Whiteness Project*, directed by Whitney Dow, is a

provocative web documentary that features a database of interviews with white

people speaking about their views on race issues in America. Much like POV's film

program, each of the projects represent different visual styles, approaches to

interactivity, and strategies for audience engagement.

Evaluating Impact

As POV expands its focus beyond linear films for broadcast television and

begins to support the production to interactive documentaries for the Web and

other digital platforms, the key questions facing the organization are whether or not

it can create "digital experiences" that serve the same purposes – and how to gauge

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[205] "POV Delivers a Revolutionary Approach to Storytelling with Six New Interactive Documentary Shorts."
[206] Wasey, interview.

the success of these early stage experiments. These questions are complicated by a number of factors, the first of which is paradox of audience development on the Web. On one hand, Wasey sees the ubiquity of the Web as creating an opportunity for POV and public media in general to reach new and existing audiences:

> We're just staying really focused on where's the audience. What are the tools they are using? Right now the reason why the Web is so exciting is because everyone has the Web. The same way everyone had (and has) TV, they now have the Web. So we can use this [to build audiences], essentially the same way that broadcast television has done, but also engage at the same time.[207]

Indeed, POV's online audience is growing faster than its broadcast audience, although it remains significantly smaller, with 7 million page views in 2014 compared to 25 million viewers on broadcast.[208] This audience is also younger than POV's broadcast viewers, since "people who discover [documentaries] on reddit or Facebook or Twitter is a different demographic than on television."[209] On the other hand, there is vastly more content on the Web, making it more difficult to attract attention for individual productions. "One of the great challenges of digital space is finding ways to break through of the noise of everything else that's going on," says Kilmurry. "It's also a challenge on broadcast, but it's a much more limited environment, even with 500 channels. Online you have millions of channels with people putting up stuff, and breaking through that to find audiences is a still a challenge."[210]

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[207] Ibid.
[208] Kilmurry, interview.
[209] Wasey, interview.
[210] Kilmurry, interview.

Both Wasey and Kilmurry point to *The Whiteness Project* as an example of an interactive documentary project that was successful at "breaking through the noise" of the Web and building a significant audience, in large part because its provocative content attracted coverage from the mainstream press and also encouraged viewers to share it via social media. This points to the importance of making content more sharable and "discoverable," as well as the ways that audience building and public discourse can be closely intertwined on the Web. Licht also sees an opportunity to adapt POV's engagement model to interactive documentaries, taking these projects "offline" and "bring[ing] them into a space wherever it can be in a room together and talk about it."[211] For interactive documentaries that don't have the social distribution potential of *The Whiteness Project*, this may become an effective audience development strategy in the future.

Another challenge to adapting POV's broadcast model for interactive documentaries is the relative scarcity of projects, particularly within the United States. Since POV's model is based on curating the work of independent artists, it also depends on the development of a robust support network for independent interactive production that includes other funders and development opportunities. Although labs and funding opportunities for interactive documentaries have grown steadily in recent years, most of these grants aren't big enough to fund entire projects, so the cost of interactive production remains prohibitive for many independent producers. For this reason, one of the most important impacts of POV

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[211] Licht, interview.

Digital's recent work has been building capacity for interactive production both internally and among independent producers.

Wasey sees the POV Digital department going through a progression that will allow them to play a larger role in the development of this ecosystem: moving from a focus on marketing and digital distribution of linear documentary films to the R&D and experimentation of the POV Hackathons to distributing "interactive shorts" and eventually funding and co-producing more ambitious interactive documentaries. Although the Knight Foundation grant only lasts for one year, the programs it supported represent incremental steps in a long-term process of digital adaptation. Wasey hopes that the Technology Fellow position will evolve into a staff position and that the organization will be able to curate a series of interactive documentaries on an annual basis.

The ultimate goal, Wasey says, is to develop a "stable of online content, just like there's a stable of broadcast content, and have the producers in house to make that content happen."[212] Kilmurry similarly expresses a strong interest in "growing [POV's] commissioning dollars for interactive work" and increasing the volume and quality of the organization's interactive productions.[213] This growth may happen slowly, since it will require POV itself find sustainable funding sources for commissioning interactive documentaries, or – following the NFB's approach – significantly restructure its existing budget and priorities. Licht points out that as more viewers encounter POV's linear documentaries online, "there will be less of a

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[212] Wasey, interview.
[213] Kilmurry, interview.

line between the broadcast and this [interactive] media... and that's kind of the goal."[214]

Like the National Film Board, POV evaluates its interactive documentaries in terms how they pushed the boundaries of both technology and creative form. These kind of contributions have become particularly important as POV begins to more fully recognize the artistic potentials of interactive documentary. As Wasey puts it,

> Interactive documentary is absolutely a craft in itself. It's not television, it's not documentary [film], it's not code. It's really something else. It's really taken me a little while to be certain that's true... When you combine software and storytelling, technology and storytelling, it's not just technology *plus* storytelling. That's the thing that we want to work on and invest in and help people understand.[215]

Kilmurry echoes this recognition of interactive documentary as a distinct form, but contrasts it with the more developed language of cinema. "If you think of great films, the ones that really last," he says, "it's storytelling, character, emotion, all those kinds of things that engage you. I would like to have digital projects that have... a similar kind of greatness of art, greatness of filmmaking."[216] Though they reflect an optimism that interactive documentaries will continue to develop more fully as an art form, these kinds of comparison also point to the challenge of evaluating interactive documentaries on aesthetic level, particularly within an organization that is still firmly rooted in the traditional form of cinemas.

Against the backdrop of these myriad challenges facing POV's digital transition is a growing pressure in recent years from some foundation funders "to be more data-driven" and measure the specific impacts of its documentary films.

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[214] Licht, interview.
[215] Wasey, interview.
[216] Kilmurry, interview.

This seems to have created tension between POV's priorities and some of its funders' goals, since Kilmurry believes that "films should be allowed to exist for their own sake" and their effects should be place within a broader context rather than attributed to specific social outcomes:

> It's a heavy burden to place on a film to say it's going to change the world. And I don't believe films exist in a vacuum. I believe films exist in a social and political context and an ecosystem around which there are many moving parts and many other people are involved, and a film may play a part in that. So ascribing a certain set of data or outcomes to a film – I'm somewhat skeptical of it. That said, I do think the films have an impact.[217]

Kilmurry's statement is consistent with POV's policy of remaining neutral on political issues, but it also reflects a conviction about the intrinsic social and artistic value of documentary films.

POV's approach to impact measurement has been to provide as much data as possible, while making sure to not adapt programming decisions to a particular funder's agenda or mission. Wasey advocates for an open-ended philosophy about audience measurement, with metrics that vary based on the type of content and its goals. "If your goal is art versus if your goal is activism," he says, "those are measured in very, very different ways."[218] Like most broadcasters, POV uses Nielsen ratings to estimate the size of its broadcast audiences. Engagement campaigns are typically evaluated based on surveys handed out to audiences at community screenings, as well as other indicators like the total number of screenings, requests from educators to stream a film, or downloads of discussion guides. According to Licht,

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[217] Ibid.

[218] Wasey, interview.

survey data provides anecdotes that represent important indicators of success. "There can be a screening that is for 10 people in Iowa and you get these evaluations saying 'This opened my eyes in X, Y, and Z ways' or 'I always hated documentaries and now I think they're great.' That sort of stuff we always think is a success. It doesn't need to be the 5,000 person screening or a Capitol Hill screening."[219] Many of the questions on the surveys attempt to gauge how motivated viewers are to take actions like joining an organization that is working on an issue in the film.

To measure audiences for most of its online content, POV uses Google Analytics, but Wasey acknowledges that this system doesn't always measure what is most important about a project. Numbers like unique visitors and time on site are treated as "proxies" for the success of something and Wasey acknowledges that "how many people saw it is an important thing." Social media activity, press mentions and media impressions are considered as a "proxy for the quality of conversation" generated by a project. Given the experimental nature of interactive documentaries, however, Wasey also measures success of these projects on a more intuitive level, asking: "Did it feel good? Did we like it? Did we think that we served the content really well?"[220]

Although POV distances itself from both taking activist positions in its outreach campaigns and attempting to use metrics to correlate its films to specific social impacts, Licht recently began working with the Harmony

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[219] Licht, interview.
[220] Wasey, interview.

Institute – creators of the impact measurement tool StoryPilot – to analyze impact data going back to 2003. This includes audience evaluations from screenings, information on partner organizations, companion material downloads, Nielsen ratings and website analytics. Harmony is planning on synthesizing this material into a research paper and adding some of this data to StoryPilot. Licht doesn't see this kind of retrospective analysis as a way to compare the relative success or impact of its documentaries, but rather as a way to communicate the overall impact of POV's work. "I think that POV needs to do a better job letting folks know what we've done and how we've done it," she says. "We're good at promoting our films and less skilled at promoting ourselves."[221]

POV was founded around the idea of connecting audiences with independent documentaries that bring new voices and perspectives into the pubic sphere, via broadcast television, and generate active public discourse around the issues they raise. The organization's recent digital experiments represent an attempt to translate this theory of change – what Wasey calls "content for conversations" – onto digital platforms. Although POV has long treated the Web as a platform for building conversations around broadcasts, initiatives like the POV Hackathon, Knight Technology Fellowship and Interactive Shorts represent a strategic shift towards producing more original content for the Web, as well as emerging platforms like virtual reality.

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[221] Licht, interview.

As POV undergoes this digital transition, it will face challenges adapting its broadcast model to interactive documentary both in terms of "content" and "conversations." When POV was founded in 1988, documentary film was a decades-old tradition of storytelling with a robust community of independent filmmakers and audiences already accustomed to the documentary genre. Interactive documentary, on the other hand, despite being built in part on the foundations of cinema, is a relatively unfamiliar form with a smaller community of independent makers and fewer resources supporting their work. As POV Digital takes steps towards commissioning interactive work, this may help develop independent interactive media production in the U.S., giving independent creators greater access to funding, legitimacy and audiences.

Now that "everyone has the Web", POV sees an opportunity to produce interactive documentaries that reach the diverse audiences that public media is meant to serve and stimulate public discourse in new ways. POV's broadcast audience is still growing and will likely remain the core of POV's work for the foreseeable future, but its digital audience, for both linear and interactive documentaries, is growing faster.[222] Regardless of whether POV's current series of "interactive shorts" better serve digital audiences compared to linear films that POV already streams on its website, its recent digital initiatives represent incremental steps of innovation that can help

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[222] Kilmurry, interview.

expand access to interactive production for independent artists and enable

POV to build capacity for digital productions.

CHAPTER 4
New York Times

In this chapter, I will explore the connections between the *New York Times*'s evolving approach to interactive storytelling and its complicated, shifting relationship to metrics and audience development on digital platforms. I will describe the approaches to audience engagement and the various impacts attributed to two of the *Times*'s most successful interactive features – *Snow Fall* and *A Short History of the Highrise.* Both projects managed to attract large, engaged audiences, to bolster the *New York Times* brand, and to develop the organization's capacity for interactive production and new forms of collaboration. *Snow Fall* also influenced the emergence of a whole sub-genre of interactive storytelling on the Web. However, as the Times's (leaked) Innovation Report reveals, there is a growing sense that the organization needs to pay more attention to impacts and metrics that drive business through subscriptions or advertising revenues. This cultural shift away from a strict separation of the editorial and business sides of the paper – of "church and state" – threatens to de-emphasize the social and civic impacts of all the *Times*'s journalism. Amidst these tensions between the organization's commercial imperatives and its public interest mission, it is unclear whether ambitious interactive features attract loyal audiences, create social impacts or tell stories more effectively than traditional formats. Despite the successes of the interactive projects I describe – including their artistic contributions and institutional impacts – they also require significantly

greater investments of time and money than most of the stories published by the Times. Therefore, it is still unclear what role interactive documentaries might play in the *New York Times*'s content strategy as it gradually transitions from a print-based organizational culture to a "digital first" newsroom.

Snow Fall

On December 21, 2012, the New York Times published *Snow Fall*, an interactive multimedia feature that told the story of backcountry skiers struck by an avalanche in Washington's Cascade Range. The piece seamlessly blended text, embedded video and photographic slide shows using a parallax scrolling interface. Almost immediately, it became a social media phenomenon. According to a memo published by executive editor Jill Abramson days after its launch, *Snow Fall* had attracted nearly 3 million unique visitors, who spent an average of 12 minutes on the story. "At its peak," Abramson wrote, "as many as 22,000 users visited *Snow Fall* at any given time. Strikingly, a quarter to a third of them were new visitors to nytimes.com." Readers left more than 1,100 comments – many of them glowing reviews of the immersive multimedia experience. Even for the *New York Times*, which had built a large digital audience and was being celebrated for its digital transition, these were impressive numbers for a single story. As Abramson summarized: "Rarely have we been able to create a compelling destination outside the home page that was so engaging in such a short period of time on the Web."[223]

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[223] Romenesko, "More than 3.5 Million Page Views for New York Times' 'Snow Fall' Feature."

Prior to *Snow Fall*, the *Times* had already spent more than 10 years

experimenting with new formats for presenting stories on the Web, ranging from

multimedia features combining photography and audio (like the Emmy-winning *One

in 8 Million*) to a wide range of interactive graphics and maps. However, *Snow Fall*

stood out because it looked and felt unlike anything the news organization had

published before. Coming after five years of layoffs and precipitous declines in

advertising revenues across the news industry, *Snow Fall* appeared to demonstrate

the potential for legacy news organizations to attract and engage readers with

quality long-form journalism bolstered by the multimedia affordances of the Web. In

its successful nomination letter for a 2013 Pulitzer Prize, the Times staff wrote

about *Snow Fall*'s success: "For those who had worried about the future of longer

form storytelling in the digital age, the future had suddenly, spectacularly

arrived."[224] Writing for *The Atlantic*, Rebecca Greenfield gushed that the project was

"so beautiful it has a lot of people wondering — especially those inside the *New York

Times* — if the mainstream media is about to forgo words and pictures for a whole

lot more."[225] The project used video and audio to create a sense of immersion that

made it feel, in Greenfield's assessment, "more like an interactive documentary that

happens to have paragraphs than a newspaper story that happens to have

interactives."[226]

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[224] "Snow Fall: Nomination for the 2013 Pulitzer Prize."
[225] Greenfield, "What the New York Times's 'Snow Fall' Means to Online Journalism's
Future."
[226] Thompson, "'Snow Fall' Isn't the Future of Journalism."

Others media commentators contested the claim that *Snow Fall* might represent the "future of journalism." Derek Thompson pointed out that the project took staff writer John Branch six months to report, and moreover, the design and development of the interactive features – which were created independently from the publication's content management system (CMS) – involved a "graphics and design team of 11, a photographer, three video people, and a researcher."[227] He concluded that "there is no feasible way to make six-month sixteen-person multimedia projects the day-to-day future of journalism, nor is there a need to."[228]

In the 2½ years since the release of *Snow Fall*, interactive features have not reached the ubiquity that inflated claims about the "future of journalism" might imply, but they have continued to occupy a small but growing portion of the *New York Times's* creative output. At the end of 2013, the *Times* published a "Year in Review" of its interactive storytelling, including 57 projects grouped into 5 sub-genres. An interactive map of regional dialects in the U.S. titled "How Y'all, Youse and You Guys Talk" became the most popular story of 2013, despite being published just 11 days before the end of year.[229] The following year, the number of interactive features more than doubled to 123. These numbers indicate that the *Times* is placing a growing emphasis on interactive multimedia features – what some journalists now call "digital longform"[230] – as a way to attract new audiences, to hold their attention and to engage them more fully in the kind of in-depth reporting on which legacy news organizations pride themselves.

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[227] Ibid.
[228] Ibid.
[229] "Behind the Dialect Map Interactive."
[230] "The Future of Longform."

Although "interactives" – as they're sometimes now referred to in the news industry – come in a wide variety of forms, the techniques used in *Snow Fall* in particular have become so familiar to readers on the Web that they the piece almost constitute a new genre of digital journalism. Dowling and Vogan describe this phenomenon in the article "Can We Snow Fall This?", arguing that such pieces stand out from the vast quantity of otherwise undifferentiated articles published on the Web, helping legacy media organizations like the *Times* "build a branded sense of renown in an increasingly competitive market."[231]

Impact and Innovation

Like the National Film Board and POV, the *New York Times* exists – at least in part – to serve the public interest. According to its website, the company's "core purpose" is to "enhance society by creating, collecting and distributing high-quality news and information."[232] However, the *Times* stands apart from government-subsidized public media organizations in two important ways. First, the *New York Times* defines its creative output as "journalism" rather than "documentary." Although there have historically been many overlaps between these two traditions of nonfiction storytelling, the standards of journalistic integrity are typically based on fairness, accuracy and impartiality, whereas documentary tends to leave more latitude for subjective points of view, creative representations of reality and explicit advocacy of a social cause. Secondly, as a for-profit company, the *New York Times*

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[231] Dowling and Vogan, "Can We 'Snowfall' This?".
[232] "Standards and Ethics | The New York Times Company."

operates under different commercial imperatives and incentives. The necessity of returning a profit to shareholders inevitably shapes its relationship to the publics – or audiences – whose interests it promises to serve. Whereas the NFB is funded directly by the Canadian government and POV derives its support from a combination of a PBS broadcasting license and foundation grants, the *New York Times* supports its newsroom operations primarily through advertisements and subscriptions. As a result, the *Times* needs to be more responsive to market forces than public media organizations, producing enough "high quality news and information" to both attract paying subscribers and sell its audiences' attention to advertisers.

Although there is an inherent tension between the imperatives of delivering a profit to shareholders and maintaining journalistic integrity, the Times and other legacy news organizations have traditionally tried to separate business concerns from editorial decisions through a policy that is commonly described as a separation of "church and state." However, as audiences have gained more autonomy and choice in the media landscape and advertisers shift their spending to digital platforms and providers like Google and Facebook, the *Times*'s editorial team faces growing pressure to adapt to the changing dynamics of audience engagement on the Web and mobile devices.

This problem came sharply into focus after the organization's internally produced Innovation Report was leaked to Buzzfeed in May 2014.[233] The report was a rigorous study and critique of the organization's culture that demonstrated how

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[233] Tanzer, "Exclusive."

far the Times had to go in its transition from a print-based business model and journalistic culture to a truly "digital first" news operation. Nieman Lab's Joshua Benton called it "one of the key documents of this media age," observing that "you can sense the frayed nerves and the frustration at a newsroom that is, for all its digital successes, still in many ways oriented toward an old model."[234] The report treated digital publishers like BuzzFeed as competitors in the attention economy. It also reflected the Times' anxiety about Buzzfeed's success, in part because of their massive reach and social media engagement.

The Innovation Report's recommendations attempt to strike a balance between the Times's need to maintain its position as an authoritative, trustworthy news source while adapting to the changing audience dynamics on the Web. Reflecting the paper's commercial imperatives, virtually all the strategies it suggests focus on growing its digital audience. The word "impact" is usually used almost synonymously with "reach" and "readership," and there is little discussion of other forms of impact. However, the concept of "audience engagement" figures prominently, in part because of a recognition of the growing importance of social media distribution:

> The newsroom needs to take on these questions of connection and engagement. We are in a subscriber-driven business, our digital content needs to travel on the backs of readers to find new readers, and there is an appetite to know the people behind our report. We can come up with a Timesian way for connecting with our readers online and offline that deepens their loyalty.[235]

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[234] "The Leaked New York Times Innovation Report Is One of the Key Documents of This Media Age."
[235] "NYT Innovation Report 2014," 49.

Though this preoccupation with audience "engagement" seems to mirror that of the

National Film Board and POV, the definition implied here emphasizes the need for

readers to share content so that it reaches wider audiences, rather than the

importance of empowering audiences or creating spaces for constructive public

discourse. The report recommends the development of an "impact toolbox" with

strategies, tactics and templates that editors could use "for increasing the reach of

an article before and after it's published."[236] An alternative definition of

"engagement" is offered later in the report, when the authors recommend opening

up more channels for user-generated content, following the lead of other publishers

that morphed into platforms, like Huffington Post and Medium.[237] The report notes

that "a new generation of startups is training the next generation of readers to

expect participation," but that the New York Times brand also "promises readers

that everything… has been carefully vetted."[238]

Although the emphasis on "engagement" via discussions on social media and

opening up its platform to more audience participation suggests might point to an

interest in public discourse akin to POV's, reminders like "we are in a subscriber-

driven business" indicate that the authors of the report are more concerned with the

ways in which this type of engagement increases the reach and drives the

company's bottom line.

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[236] Ibid., 47.
[237] Ibid., 51.
[238] Ibid.

A Short History of the Highrise

In 2011, the New York Times hired documentary filmmaker and journalist Jason Spingarn-Koff to produce video for its Opinion section. One of the editors' original idea, as Spingarn-Koff described in a 2014 interview with *Realscreen*, was to publish videos of Paul Krugman and Maureen Dowd reading their columns – as he joked, "the print way of looking at it."[239] Rather than focus on repurposing existing Times content, Spingarn-Koff launched the Op-Docs series and began commissioning short documentaries from independent filmmakers – "produced with wide creative latitude and a range of artistic styles"[240] – that were released on the Times website. According to Spingarn-Koff, the original concept was to create "an outlet for independent film makers the way the Opinion page is for independent writers, and it would be the voice of the public."[241]

In the same way that *Snow Fall* pushed the boundaries of the multimedia form, the Op-Docs films have pushed the boundaries of what readers expected from a New York Times video. The series has included films from established directors like Errol Morris and Laura Poitras in addition to lesser-known early-career filmmakers. Many have been short films that were adapted from issue-based feature-length documentaries, but the Op-Docs series also includes more unconventional work like "Solo Piano NYC," a meditation on a piano discarded on the sidewalk, and "Yes We Chant," a musical mashup of the presidential debate

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[239] Ravindran, "Realscreen's Trailblazers 2014."
[240] "About Op-Docs."
[241] Spingarn-Koff, interview.

directed by the Gregory Brothers that used auto-tune to distort the voices of Obama and Romney.

Though films like "Yes We Chant" initially raised eyebrows within the *Times*, the series has helped attract new audiences to the Times opinion page and generate higher ad revenues with pre-roll videos. It has also become a case study of innovation within the organization, demonstrating the value of experimenting with formats that fall outside the *Times*'s traditional journalistic norms. The Innovation Report's recommendation to expand the Op-Ed section was based in part on the success of Op-Docs: "The quality of submissions and audience interest both have been extremely high, making Op-Docs one of our most popular and praised verticals."[242] Creating more spaces like Op-Docs for opinionated voices and debate, the report argued, would "help the Times solidify its position as the destination for sophisticated conversation."[243] This assessment points to a recognition that experimenting with new formats and expanding the number of voices and perspectives presented on its platform can help the Times achieve the desired impacts like building its digital audience and maintaining the "sophisticated conversation" that is central to its brand.

In 2013, Op-Docs unit continued this formal experimentation by producing its first (and until now, only) interactive documentary. During a convening at the MIT Open Documentary Lab, Spingarn-Koff met National Film Board producer Gerry Flahive and learned more about Katerina Cizek's *Highrise* project. "Op-Docs was still very new," says Spingarn-Koff. "I was personally really interested in interactive

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[242] "NYT Innovation Report 2014," 52.
[243] Ibid.

documentary. There's always been a sense that [Op-Docs] is all a bit of an experiment, so just keep trying new things."[244]

After meeting Cizek, Spingarn-Koff invited her to produce a single short film about the history of high-rise buildings using the New York Times photo archives. Although Op-Docs budget for commissioning was still limited, Flahive managed to get additional funding from the National Film Board to turn the project into an interactive documentary that would be a co-production between the two organizations. As the project's creative ambitions and budget grew, so did the team. Spingarn-Koff recruited Jackie Myint, the *Times* interaction designer who had worked on *Snow Fall*, and Lexi Mainland, Editor of Social Media within the *Times*'s Interactive News department and a veteran of multimedia projects like *One in 8 Million*. Cizek and Flahive also worked with Helios Design Lab, the same agency that had produced the web documentaries for the rest of the Highrise series.[245]

When conceptualizing the project, Cizek drew inspiration from children's pop-up storybooks, using playful motion graphics and narration spoken in rhyming couplets to compress a "2,500-year global history" into a short, entertaining interactive experience.[246] The core of the project is a linear video broken into three chapters – titled Mud, Concrete and Glass – each of which covers of a different era of architectural history. Users have the ability to pause the video and "dive deeper" into specific topics – examining additional photographs from the *Times* archives or other primary source documents that act as annotations to each section – before

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[244] Spingarn-Koff, interview.
[245] Cizek, interview; Spingarn-Koff, interview.
[246] Cizek, interview.

returning to the video. This allows users to have either a "lean back" linear viewing experience or a more "lean in" interactive experience depending on their level of interest.

To create the project's fourth chapter, Mainland used the *Times*'s social media channels to solicit photographs from high rise residents around the world. This call for participation was issued at a live event at SXSW, helping create visibility for the project months before its release. Cizek took these user-generated submissions and edited them into a short film that works as a kind of poetic epilogue to the project's first three chapters. Although the Times had experimented with calls for user-generated content in the past, this was one of the first times it had directly integrated that content into a professionally produced project.

While this strategy represented a new form of audience engagement for the Times – and therefore a new way to create impact – it ultimately fed into the larger goal of reaching broad audiences. As Mainland notes, this was particularly important for such an ambitious project:

> The main question [we] had from the start... since this is a really big commitment for the Times, personnel wise and money wise and idea wise, was 'How can we make sure that it finds its maximum audience?' and that we don't just have one moment in time when it's consumed, but there's a strong lead up.[247]

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[247] Mainland, interview.

Evaluating Impact

Before it was released live on the web, *A Short History of the Highrise* had its official premiere in September 2013 at the New York Film Festival – an unusual venue for a news organization and for an interactive documentary. Coming less than a year after the release of *Snow Fall*, the project represented another important moment of innovation for the *New York Times*. It was a creatively and technically ambitious project that integrated interactive video, user generated content and creative repurposing of the *Times* photo archives into a format that was unlike anything the *Times* had published before.

Like *Snow Fall*, the project's novel form helped it reach a broad, global audience and generate robust discussion via comments and social media. The project was tweeted nearly 4,000 times and generated more than 100 comments. Although Spingarn-Koff can't reveal specific audience numbers, he felt the "views were very good."[248] However, his personal assessment of the project's impact has more to do with the idea reflected in the Innovation Report that the Times should be a "destination for sophisticated conversation":

> With Op-Docs and Op-Ed, I've been taught to gauge the success often by the impact more than the number of views, so we want people to talk about it and have something of substance to talk about. The comments are a major way we measure success, like the quality of thought that's going into stuff. It's not necessarily the number of comments. When a piece does have 400 comments on a video that's very, very rare and we know that's a major accomplishment.[249]

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[248] Spingarn-Koff, interview.
[249] Ibid.

Although some of this conversation revolved around the history of housing and social rights, a great deal of it was also discussion and debate over the project's unique form – particularly the use of rhyming couplets by a news organization known more for its strict editorial standards than playful creative experimentation. For Cizek, the project's unique form had the advantage of both "challenging older readers" and "reaching out beyond that [loyal] readership to say *the Times* offers stuff to people that don't normally come to the *Times*."[250] This raises the question that the National Film Board has grappled with in some of its most popular interactive documentaries: are audiences responding to the form or the content? Spingarn-Koff insists that, given the work that went into both developing "an interesting point of view and thesis" and the "incredible design and presentation," the team ideally "wanted people to respond to both."[251]

A Short History of the Highrise was also considered a success based on the amount of participation it generated from global audiences prior to its release. According to Mainland, the project's final chapter was one of the Times's biggest successes with user-generated content to date, since the team received "submissions from everywhere, including Cuba and places that you might not think you're going to get submissions from."[252] These contributions create impacts by expanding the number of perspectives that are reflected in the project, but they also help redefine the relationship between the Times and its audience at a time when more users expect some form of participation.

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[250] Cizek, interview.
[251] Spingarn-Koff, interview.
[252] Mainland, interview.

Beyond the various ways that audiences engaged with *A Short History of the Highrise*, the team points to a variety of other institutional impacts that are just as significant to their own evaluation of its success. In addition to the New York Film Festival premiere, which helped "ground it in a certain tradition of cinema"[253] and distinguish it from other pieces of interactive journalism – the project picked up Peabody, Emmy and World Press Photo Awards, bringing prestige to the paper and the Op-Docs unit in particular. According to Spingarn-Koff, this critical success has helped further legitimize Op-Docs within the *New York Times* by "making a splash" and branding it as a space for ambitious, innovative creative work:

> It's great just for raising the ambition and the awareness [of Op-Docs]. One runaway successful article won't do that. Like, if some article gets million of views, that's not going to reshape the whole direction of the unit. But something like this, I think it's like making a feature film in its complexity. It shows that we can shepherd things through that are ambitious, that work on a timescale of a year and a half.[254]

This industry recognition may help open the door to more ambitious interactive documentary productions at the *Times* in the future, but for the team it was also a validation of the creative risks that the project took. "We encouraged this to be an artistic work," says Spingarn-Koff, "and that was very risky. We chose something that the newsroom couldn't do. I'm often proud when I feel like we've done something a newsroom couldn't do – or shouldn't do."[255]

Perhaps most significantly, the experience of producing *A Short History of the Highrise* was a learning process that has the potential to expand the *Times*'s capacity for interactive production and collaboration with other organizations. As Mainland

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[253] Spingarn-Koff, interview.
[254] Ibid.
[255] Ibid.

puts it, "you can just learn so much by doing different things that you've never done before. I'm sure if we were to approach a project of this scale or kind the next time, we would have learned a lot… I feel like that's the ultimate reason to do it."[256] Jackie Myint, the interaction designer on both *Snow Fall* and *A Short History of the Highrise*, points out how this kind of institutional learning, in a short period of time, has begun to transform the production processes at the Times:

> Two or three years ago, the multimedia design and graphics interactive teams would come in at the very end. The story has already been written or the video has already been produced. At the end [we were asked] 'how can we make this interactive?' There's not enough time or it's something that's just tacked on. Now we're brought in much earlier so we can work with the reporter or the videographer or whoever to think about the possibilities of interactivity in the project and why it makes sense… We've gotten much better about that.[257]

The substantial investment of time and money required by interactive documentaries can also continue to return value to organizations by making it easier to produce similar projects in the future. Although *Short History* was designed and coded from scratch, it could be translated into a tool or template that helps translate its experimental form into a reproducible format rather than expensive one-hit wonders. As Quartz editor Kevin Delaney is quoted saying in the Innovation Report: "I'd rather have a *Snow Fall* builder than a *Snow Fall*."[258] A good example of this kind of institutional impact is D3.js, an open source Javascript library developed by Times employee Mike Bostock and colleagues at Stanford University that has

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[256] Mainland, interview.
[257] Myint, interview.
[258] "NYT Innovation Report 2014," 36.

enabled the creation of countless interactive data visualizations both inside the

organization and out. Another example is FOLD, a publishing platform developed at

MIT's Center for Civic Media that allows authors to add annotations that branch out

from a text-based articles in a same way that *A Short History of the Highrise* creates a

nonlinear viewing experience by annotating video.[259] The authors of the Innovation

Report argue that while less glamorous, such tools and templates "cumulatively can

have a bigger impact by saving our digital journalists time and elevating the whole

report."[260] These kinds of institutional impacts are critical since they help the *Times*

overcome structural challenges that are impediments in its transition to a "digital

first" news operation and its ability to produce other forms of impact in the long

term.

As we saw in the example of *Snow Fall*, it can be tempting to speculate about

what role interactive features like *A Short History of the Highrise* might play the

future of journalism – or at least the future of journalism at the *New York Times*.

Both projects seemed to fit all the criteria that news organizations are looking for in

successful digital innovation: they attracted large audiences, generated engaged

discussions in the comments section and on social media, brought home awards and

critical acclaim, and helped foster new collaborations and institutional learning.

However, such creatively and technically ambitious projects are generally costly and

time-consuming compared to most journalism produced by the Times.

Meaningfully evaluating these various dimensions of impact and their

associated costs becomes further complicated within a large, complex news

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[259] "FOLD Wants to Keep You from Tumbling down Link Rabbit Holes."
[260] "NYT Innovation Report 2014," 36.

organization that prides itself on a separation of "church and state," or business concerns from editorial decisions. In many ways, the New York Times has been made up of two organizational cultures, each with distinct – and not always compatible – goals, relationships to audiences, definitions of what constitutes impact and how to measure it. This longstanding policy has ensured that the editorial side of the paper can remain at arms length from commercial considerations like audience metrics, focusing instead on producing "high quality news and information" that serves the public interest, ideally by generating positive social and civic impacts. The business side of the paper, on the other hand, has traditionally focused on attracting subscribers and advertisers – essentially selling a product that they don't have control over.

One of the resounding themes in the New York Times Innovation Report is that this separation can be an impediment to the organization's digital transformation, particularly within an increasingly competitive, fast-changing and "user-centered" media environment. The people with the best understanding of audiences get isolated from the people producing content for them. As a result, one of the report's central recommendations was for greater communication between the editorial and business side of the paper, particular "Reader Experience" units like the Consumer Insight Group, which "spend[s] each day thinking about and talking to readers. But they have focused almost exclusively on issues like how to increase subscriptions, largely because the newsroom has rarely called on them for help."[261]

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[261] Ibid., 62.

In Fall 2014, the Times heeded this recommendation when it formed a new

Audience Development team, consolidating various audience-facing roles that had

previously been fragmented across the organization. According to a Digiday article

profiling the group's leader, Alex MacCallum, the newsroom "hadn't been looking at

numbers" prior to Audience Development team. "There was a social team that ran

Twitter for the newsroom, but Facebook and YouTube were handled by marketing.

SEO was handled by the product team, while analytics fell under the consumer

insights team."[262] On November 28, less than two months after she assumed the

role, MacCallum sent a memo to the paper highlighting the team's success so far:

> Last month 64 million visitors read our journalism on our website and
> apps, topping our previous best month by more than 10 million
> visitors. More important, our readers didn't just show up. They stayed
> – twice as long on average as at The Washington Post, three times as
> long as at The Wall Street Journal and almost five times as long as at
> The Guardian."[263]

MacCallum's assessment suggests that the metrics that still matter most to the *Times*

are those that support its bottom line: the number of visitors to the site and the

amount of attention they devoted to the content on it. As the *Times* becomes

increasingly dependent on revenues from digital subscriptions, MacCallum points to

"developing reader habits" as a major part of her job. "It isn't chasing clicks," she

says. "It's making people loyal to the *Times* specifically… sustaining that business

depends on people continuing to find value in the paper."[264]

The *New York Times* Audience Development team is symptomatic of a

broader culture shift in attitudes towards audience metrics within legacy news

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[262] "Inside the NY Times' Audience Development Strategy."
[263] "Memo from New York Times' Alex MacCallum | Capital New York."
[264] "Inside the NY Times' Audience Development Strategy."

organizations. It has become harder for these established players to ignore the

success of digital native publications like the *Huffington Post*, *Buzzfeed* and *Gawker*,

all of which use metrics to better understand their audiences, shape social media

distribution strategy and, in many cases, guide editorial decisions. In her

ethnographic study of metrics in newsrooms, Caitlin Petre points out that "even

legacy newspapers like *The Washington Post* have screens showing traffic numbers

in the newsroom."[265]

The danger of these cultural shifts is that they begin to consolidate the

competing definitions and measures of impact and engagement within

organizations like the Times. Given the pressure to attract loyal digital subscribers

and higher advertising revenues, audience-based metrics such as unique visitors,

time on site and social media activity may become the default. The language in the

New York Times Innovation Report, for example uses the word "impact" almost

exclusively to mean audience reach. "Engagement" is defined in terms of comments

and social media activity. Arguably this definition of "engagement" has as much to

do with extending reach as it does with fostering public discourse, since the report

openly acknowledges that its digital content must "travel on the backs of readers to

find new readers."[266]

From this perspective, the key question for ambitious interactive projects

like *Snow Fall* and *A Short History of the Highrise* is whether they can become part of

New York Times readers' habits or convince them to purchase digital subscriptions.

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[265] Petre, *The Traffic Factories: Metrics at Chartbeat, Gawker Media, and The New York Times.*
[266] "NYT Innovation Report 2014," 49.

Although both attracted large audiences, some questioned whether their appeal had more to do with their innovative design and interface rather than their content. Commenting on the success of *Snow Fall*, Hamish McKenzie noted:

> It is likely that a large proportion of those 3.5 million page views came from people who were curious about the multimedia adventure, people who, urged on by mouth-agape reviews, clicked through from Twitter or Facebook to see what all the fuss was about and then moved on. Whether or not the story was read 3.5 million times is another story. How many of those visitors would keep coming back time and time again to such stories, which, remember, also take a very long time to read? How quickly would the novelty wear off once readers got used to the construction?[267]

If the *New York Times* wants to use interactive documentaries to attract readers that can be converted into loyal subscribers, they will need to look beyond page views and determine to what extent innovative technology and design factor into the popularity of high-budget interactive projects. In the case of *A Short History of the Highrise*, these insights can be partially found in online comments about its rhyming narration or nonlinear structure. They could also be reflected in metrics like Google's "time on site" or Chartbeat's "attention minutes," particularly if compared to text-based articles with similar content.

Focusing exclusively on metrics that support the *Times*'s goal of attracting subscribers, however, risks overlooking the potential social and civic impacts of interactive documentaries. For example, parsing comments or measuring page views and readers' attention don't necessarily capture the extent to which the project's interactive interface affected readers' narrative comprehension, whether it

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[267] "Sorry, 'Snow Fall' Isn't Going to Save the New York Times."

made the piece a better primer on urban issues or generated more discussion than a text-based article on the same topic would have. These questions are more easily answered with qualitative research like user surveys or interviews than the quantitative measures provided by most digital analytics.

Of course, many of the most important social and civic impacts of the *Times*'s work can come from raising widespread awareness about issue, particularly with hard-hitting investigative journalism like the *Times*'s May 2015 series on the exploitation of workers in nail salons.[268] These text-based articles created a public outcry and tangible political change – within two weeks, Mayor Bill de Blasio declared a "Nail Salon Day of Action," recruiting hundreds of volunteers to inform the city's salon workers about their rights.[269] However, as Ethan Zuckerman points out in a 2011 blog post, "audience doesn't necessarily equal impact."[270] Zuckerman argues that appropriate metrics for civic impacts might help balance the influence of analytics like page views and help news organizations better serve the public interest. He warns that focusing on traffic-based analytics like page views and unique visitors may make newspapers "look more like… content farms and less like the civic guardians we want and need them to be."[271] The blurring of the boundaries between "church and state" – or between editorial judgement and commercial considerations like metrics – comes with the risk that the two sides of the organization are not just sharing numbers, but definitions of impact.

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[268] Nir, "The Price of Nice Nails."
[269] Nir, "Hundreds of Volunteers, Armed With Fliers, Tell Nail Salon Workers of Their Rights."
[270] Zuckerman, "Metrics for Civic Impacts of Journalism."
[271] Ibid.

Although the *Op-Docs* series has become one of the *Times*'s "most popular and praised verticals," creating a space for point-of-view documentary storytelling, and *A Short History of the Highrise* was deemed a success on multiple fronts, it remains uncertain whether the organization will see value in continuing to experiment with similarly ambitious interactive documentaries. To be sure, the *Times* is producing interactive features at an increasing rate, although the majority of these fall into more familiar subgenres like data visualizations, interactive graphics and *Snow Fall*-style multimedia features that may better serve institutional purposes. As a for-profit company, the *Times* has less latitude overall for formal experimentation than the National Film Board and POV, and its investment in interactive storytelling will likely be driven more by audience reach, loyalty and cost of production rather than artistic or technological innovation for its own sake.

Nevertheless, even if these experiments in interactive storytelling don't become the "day-to-day future of journalism," they can create important long-term institutional impacts, not only from the prestige and branding that comes with Pulitzer and Peabody Awards, but also in the ways that interactive documentaries helps foster and test new production processes and collaborations within the organization. As Amy O'Leary, one of the lead authors of the Innovation Report, remarked in an interview with Nieman Lab, the Times's digital transformation may be a "thirty-year marathon" that the organization is only halfway through:

> No one has really figured out the secret to mastering what it means to be a media organization in the digital age. So the critical thing is that places like The New York Times dive head first into a strong culture of experimentation. And by that I don't mean throwing everything to the wall and seeing what sticks. I mean rigorous, studied experimentation,

where new ideas are tried with excitement and with ease and are studied to learn what works and what doesn't. I mean that taking risks and trying new things are celebrated even when they may seem, at the outset, like a failure. And that the definition of success for a new idea should be whether or not we learned anything from it, not whether or not it became the future of media.[272]

If the Times is half way through a 30-year transformation, as O'Leary suggests, it is

critical that its metrics for "what works and what doesn't" reflect social and

institutional impacts in addition to those that support its bottom line.

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[272] "Amy O'Leary on Eight Years of Navigating Digital Culture Change at The New York Times."

CONCLUSION
A Decision at Every Turn

The three public interest media organizations that I've profiled in this thesis – the National Film Board of Canada, POV and the New York Times – share a common interest in experimenting with digital technologies to engage audiences with new forms of documentary storytelling. These experiments have drawn on many different techniques or modes of engagement, all of which are typically grouped (at least for the present moment) under the broad term "interactive documentary."

Many of the individual projects I've discussed use the nonlinear nature of the Web to explore the possibilities of nonlinear narrative structures and multimedia interfaces that allow users to explore databases of documentary content. Compared to traditional storytelling forms like documentary films or text-based articles, these interactive forms give users some degree of control over the order in which they experience content, the amount of time they spend with it, or the depth with which they are able to explore a given topic or narrative thread. In contrast to a film, in which the author organizes the narrative elements in a sequential, temporal manner, these interactive documentaries are often constructed with a more spatial logic, allowing users to explore immersive "story worlds" based on their interests and available time.

Another common technique in interactive documentaries is inviting users to participate in the co-creation of the narrative by submitting "user-generated content" or taking part in a more orchestrated participatory process such as Cizek's experiments with community-based interventionist media. This approach harkens back to the theories of change developed by the NFB's Challenge for Change, which were based on the idea that people could become more actively involved in an issue by producing media about it rather than just consuming media. However, there is a strong distinction between web-based projects that solicit user-generated content, in which there is still a separate between producer and audience, and Cizek's strategies, which involved direct engagement with subjects that is more closely aligned with the Challenge for Change model.

A related set of techniques attempt to personalize documentary content, adapting to a user's background, interests or context, usually in a way that requires fewer active inputs from the user. As we saw in the example of *Do Not Track*, this form of interactivity can be integrated into an essentially linear narrative structure. Finally, the example of *Fort McMoney* shows how game mechanics can be used to incentivize users to explore nonlinear story worlds and participate in dialogue about the issues, while simulation can potentially enable users to develop greater understanding of complex systems like the relationship between the social, economic and environmental impacts of oil drilling.

I have also outlined a range of institutional motives, incentives, anxieties and "theories of change" that have driven experimentation with digital storytelling, some of which are based on long-standing organizational missions inherited from a

mass media era, while others represent reactions to a rapidly shifting networked digital media environment.

At their core, each of these organizations still exists to create media that serves the "public interest." Yet, like "impact" and "engagement," this is a term that can have a wide variety of meanings within different institutional contexts. The bedrock principle that is reflected in the missions of all three organizations is closely related to the original purpose of the public interest standard in broadcasting: to "ensure that broadcasting serves the educational and informational needs" of citizens. This reflects the legacy of Walter Lippman, John Grierson, John Reith and others who saw that mass media could offer a vehicle not only for entertainment, but for a new kind of public education that was centralized and controlled by the educated elites. This informational function – the idea that media can raise a public's "awareness" about important social issues – is still seen as one of the central purposes of documentary films today.

But how should we define the "educational and informational needs of citizens" – and beyond that, what constitutes the "public interest" – in the digital age? Interactive documentaries offer possible answers to this question, since they deploy a new set of strategies for conveying information and story that, in some cases at least, attempt to move beyond the didactic, paternalistic, one-to-many approaches to public education of the past by allowing users to actively explore different dimensions of an issue or contribute their own perspective within a fragmented, networked, many-to-many media landscape.

Beyond informing audiences, another common factor uniting all three organizations is the desire to use nonfiction storytelling to catalyze or improve public discourse around important social issues. This general objective can be broken down into a number of more specific goals. One goal is to create a space for new voices and perspectives to enter into a public discourse. For POV, this meant creating a platform for independent documentaries to reach millions of viewers on broadcast television. For the *New York Times*, the launch of the Op-Docs similarly presented an opportunity to expand the number of perspectives represented on the Opinion section of its website and ensure the *Times* remained a "destination for sophisticated conversation."[273] Another way that documentaries can affect public discourse is by influencing the way other media outlets cover an issue or by attracting the coverage themselves – thereby generating discussion around issues that extend beyond audiences for the documentaries themselves. POV's *The Whiteness Project* and the NFB's *Do Not Track* are examples interactive documentaries that received press coverage and helped introduce new perspectives to the broader debates over racial issues and the web economy, respectively.

Finally, most documentarians and other public interest media producers strive to generate conversation and debate among audiences themselves. For the three organizations I've profiled, this has included "offline" discussions (such as after a community screening or during a participatory media workshop) as well as online discussion in channels ranging from AOL chat rooms to comment sections to social media platforms. This kind of active response in the form of conversation is

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[273] "NYT Innovation Report 2014," 52.

often used to define and measure an audience's "engagement" with a story, since it represents one of the primary affordances of interactive media. In most cases, this form of engagement happens "outside" the text itself, when a viewer or user decides to share a project or comment on it via social media. In some interactive documentaries, such as *Fort McMoney* or *Immigrant Nation*, a participatory discourse can be become a central part of the interface and the experience of the project itself. The examples of Challenge for Change and Cizek's *Filmmaker in Residence* and *Highrise* also demonstrate the ways in which a participatory *process* of documentary media making creates local, community level discourse that is often independent from the completed films or other media artifacts that result from it.

Increasingly, funders and producers alike are looking at the ways public interest media can move audiences from awareness to more tangible civic actions that extend beyond merely discussing an issue online. As I described in Chapter 1, much of this emphasis on media impact is tied to the growing influence of foundations in the public interest media sector and the rise of "outcome-oriented," "evidence-based" and "data-driven" strategic philanthropy. While the National Film Board, POV and the *New York Times* all take pride in certain documentaries or articles that move their audiences to take concrete actions, all three organizations stop short prescribing specific actions or pursuing outcomes like behavior change or policy change.

Most of the social impacts attributed to public interest media – whether raising awareness, stimulating discourse or inspiring action – rely on connecting their work with audiences, typically on a national or international scale. The

National Film Board of Canada and POV were established with the intention of serving Canadian and American publics, respectively. The New York Times, as a profit-driven business, needs to attract the attention of the broadest possible audience basis in order to sell their attention to advertisers and convert loyal readers into paying subscribers. The migration to the Web and other digital platforms is taken for granted as a strategic imperative, allowing organizations to reach younger and more global audiences at a time when audiences for legacy platforms – including broadcast television and print newspapers – are aging and generally declining. As a result, one of the primary goals of experimentation with interactive documentary has been to develop audiences on digital platforms.

Since audiences on the Web tend to consume media from a wide variety of sources, there is also a strong need to develop content that encourages loyalty, creating what Perlmutter calls an "authentic, engaged relationship" with audiences. Although the notion that bigger audiences are better has carried over from the mass media era, digital platforms require organizations to pursue more targeted strategies for audience development, emphasizing quality of "engagement" over quantity of "eyeballs," particularly at news organizations like the *Times*, which increasingly relies on digital subscriptions to compensate for declining advertising revenues.

For each of these legacy media organizations, developing "authentic, engaged relationships" has meant adapting both narrative forms and delivery platforms to the ways in audiences are already engaging with digital media. In Brian Chirls's words, media makers are now forced to "meet the audience on their turf." Since

users' experiences on the Web are innately interactive, nonlinear and participatory, public interest media organizations have attempted to integrate these features directly into the experience of nonfiction stories. However, this requires changing not only creative forms, but production processes, collaborative teams and organizational structure.

As interactive documentaries have become more common, an ecosystem has developed around these digital storytelling experiments, including awards, exhibitions and conferences that provide greater industry exposure for projects and help these institutions develop their brands. For individuals making interactive documentaries, this kind of industry recognition of artistic innovation represents important extrinsic rewards of creative experimentation with the interactive documentary form.

On a more practical level, producers within these organizations view the production of interactive documentaries as a critical learning process that helps them adapt to new workflows required by interactive digital media. This includes developing collaborations between software developers, designers and storytellers accustomed to working in linear forms, such as documentary filmmakers or journalists. Such innovations in artistic form and process are often important motives for producing interactive documentaries, in addition to building audiences or achieving the various social impacts I have discussed. Throughout this thesis, I have argued for an expanded definition of "impact" that includes "institutional impacts" such as stimulating innovation, creative experimentation, organizational restructuring and branding.

The wide range of goals and incentives for producing interactive documentaries illustrates the extent to which "theories of change" around digital innovation are complicated and at times contradictory, mixing goals of audience development and social impact with creative experimentation and strategic imperatives like branding and organizational restructuring. They also reflect the complex challenges of evaluation in a nascent field that Wasey compares to "Pasteur's Quadrant" – a space where the "basic science" of experimenting with a new creative form overlaps with the "applied science" of speaking to audiences and serving the public interest.

From the perspective of the organizations I've profiled, interactive documentaries would ideally accomplish all of these goals at once – pushing the boundaries of artistic form and helping facilitate a process of digital transformation while simultaneously building loyal, engaged audiences, improving public discourse and even moving audiences from awareness to action on important social issues. Yet, as we have seen, this is not always the case. Therefore, to fully evaluate the impact of interactive documentaries – in the broadest sense of the word – it is necessary to separate social impacts, audience development and innovation.

As Zuckerman points out, "audience doesn't equal impact." If a documentary is seen by the *right* audiences – say, a small group of policy makers or hospital nurses – it can have significant impacts, regardless of its reach. (This was one of the primary lessons of Challenge for Change, although one that was largely missed because it didn't align with the one-to-many logics of mass media.) By the same token, innovation doesn't necessarily lead to audiences – or may do so only

temporarily. The successes of projects like *Waterlife*, *Highrise: One Millionth Tower*, and *Snow Fall* demonstrate how audiences can be drawn to interactive documentaries because of their unusual form and use of new technology. Yet, since it is not financially viable for most public interest media organization to constantly "push the envelope" of creative form and technology, this is likely an unsustainable strategy for long-term audience development. Finally, innovation does not translate automatically into short-term social impacts. Interactive documentaries may be designed with more elegant interfaces and invite more active, participatory engagements with documentary stories, but it's not yet clear how these engagements might translate into impacts on the individual or societal levels.

Within these overlapping motives of social impact, audience development and innovation, public interest media organizations must decide whether interactive documentaries create enough value – social, artistic, financial or otherwise – to justify investment in them. And given the range of different forms of impact that I've described, which ones should be privileged – and how should they be balanced – in order to evaluate and guide institutional investments in interactive documentary? This decision is further complicated within organizations that are still producing linear forms of storytelling that have more established distribution channels, revenue models, formal conventions, audience expectations and precedents for impact.

For each of the organizations I've profiled, some of the easiest and most straightforward measures of success are the industry recognition that comes with awards, film festival exhibitions and other forms of critical praise. In the case of the

National Film Board, these have helped reach new audiences, brand itself as a digital

innovator and validate investments in boundary-pushing interactive work. They

also create channels through which interactive media experiments can influence the

work of other creators and organizations. In the long term, this may contribute to

the development of what Tom Perlmutter describes as the "birth of an entirely new

art form."[274] For the National Film Board, this kind of artistic innovation and

"cultural leadership" is given the same importance as its public interest mission.

Though these institutional impacts could be evaluated based solely on the number

of awards, exhibitions or positive reviews, organizations could also track the extent

to which new interactive techniques pioneered (or at least popularized) by specific

projects were picked up by other interactive documentary producers.

Measuring the internal organizational changes that result from producing an

interactive documentary is a more challenging task, particularly if it involves subtle

internal cultural shifts. However, individuals collaborating on interactive

documentaries often accumulate small lessons from project to project, such as the

New York Times interactive teams learning to start conversations between

reporters, designers and technologists earlier in the process of developing a story.

Even unfinished projects, such as the prototypes that result from the POV

Hackathon, can have important impacts by expand the field, creating opportunities

for more producers to experiment with the possibilities of the interactive

documentary form.

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[274] Perlmutter, "The Interactive Documentary."

Although commercial and public interest media organizations alike are increasingly interested in the quality of "engagement," the size of an audience is still an important metric – particularly in retrospect when evaluating projects that achieved scale like *Waterlife* and *Snow Fall*. To measure the audiences for interactive documentaries, most organizations still rely on the same quantitative digital analytics that are applied to linear mass media forms like films and text-based articles. Google Analytics is used to track metrics like unique visitors, pageviews, bounce rate and average session duration, as well as basic demographic information about users – such as age range, gender and location. These data can give organizations an approximate sense of the amount of "exposure" a project received and the extent to which it captured the attention of audiences in different demographic groups. They can therefore be used as proxy indicators for the level of awareness an interactive documentary created.

However, such aggregate measures also obscure the range of different experiences that users can have with an interactive documentary. For example, as we saw in the results of StoryCode's informal survey, users of "immersive media projects" spent an average of 5 minutes on these sites and consumed 20% of available content. These numbers don't tell us how many users spend 20 minutes versus 2 minutes on a project, or whether the 20% of available content encountered by the average user added up to the kind of story or experience that the author intended. A better analytics system for interactive documentaries might break these averages down in more detail, such as by displaying session duration and pageview numbers in a histogram view to reveal the distribution of different levels of

attention and engagement across all users, or between different demographic groups. Interactive documentary producers could also adapt "telemetry" tools used in video game analytics, which can record the paths of thousands of users through a game and analyze every "event" or user action. These might give producers a better understanding of where users get "stuck" or begin to lose interest in an interactive documentary.

To understand the social impacts of their work, the organizations I've profiled often to look at signals of a projects' ability to generate conversation and public discourse, such as influence on coverage of an issue by other media outlets and social media metrics like the number of comments, shares and tweets. Social media datasets can provide important insights into the "sharability" of an interactive documentary or any other piece of media, but they don't necessarily capture the quality of online conversation or its ability to cross demographic or ideological boundaries. For example, a listicle that gets tweeted thousands of times doesn't necessarily reflect the kind of robust public discourse that these organizations strive to create. This also raises the complication that social media have become the primary distribution platforms for content on the Web, which means that social media metrics are used as proxies for the amount of attention a project received as much as they are indicators of active discourse. Better metrics for public interest media might use natural language processing to differentiate between "shares" on social media, commentary by "trolls" and more thoughtful commentary or debate. Or they might use social network analysis to determine

whether an interactive documentary generates political debate between users with different ideological perspectives, as *Fort McMoney* attempts to do.

The lack of audience metrics dedicated to social impact – combined with the availability of vast trails of data left behind by digital media users – are two of the major reasons that foundations interested strategic philanthropy have supported a spate of research reports, frameworks and tools for measuring impact. Tools like ConText, StoryPilot and The Participant Index (TPI), which I describe in Chapter 1, attempt to measure not only the awareness generated by public interest media, but the extent to which they motivate audience members to participate in public discourse around an issue or take concrete actions, such as signing petitions or joining protest. In the case of TPI, this means looking at cognitive and emotional effects of documentary films, and inferring their ability to create long-term attitude or behavior changes in individual viewers.

Some aspects of these tools could certainly be applied to better understand the social impacts of interactive documentaries. For instance, the "semantic network analysis" on which ConText is based might help organizations understand the extent to which debates within *Fort McMoney* reached "beyond the choir" of those already interested or invested in the subject matter. The survey data that is part of The Participant Index might be used to measure the emotional involvement of users in *Snow Fall*, *Bear 71* or *The Whiteness Project*.

That said, a major limitation of these tools – and the frameworks for media impact that they are based upon – is that they were each designed with linear, non-interactive forms in mind. As a result, they generally define "engagement" in terms

of the viewer's response to a documentary film after watching it. Much like the

digital analytics that they are intended to augment, this new breed of metrics also

captures impact primarily in abstract quantitative terms, making it harder to use

them to understand the new engagements required by interactive documentaries.

They may measure some aspects of *what* a user is doing during and after an

experience with an interactive documentary – such as page views, comments or

tweets – but they can't measure *why* that user made certain decisions or took

certain actions *within* an interactive documentary.

In order to better understand what Perlmutter calls the "cognitive, emotive,

psychological and physical forces at work in the interactive experience,"[275]

organizations producing interactive documentaries need to supplement quantitative

digital analytics with more rigorous qualitative user research and testing. In most

cases, "engagement" with linear media is defined narrowly – describing things like

attention, social media activity or loyalty – and filmmakers generally assume that

their viewers will watch a film from start to finish, either sitting in a dark theater or

at home on their couch. Interactive documentaries, however, expand these

definitions to include new engagements with the form itself, and different users can

have vastly different experiences with the same project. There are also a wide

variety of engagements across different interactive documentary projects, since

each one experiments with a different interface or different strategies for inviting

user participation. Finally, a challenge that interactive documentaries share with all

forms of digital media is that they are encountered in a broader range of different

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[275] Ibid.

contexts that inevitably shape the user's experience of them. For example, a user may stumble across an interactive documentary via social media in the middle of a work day while they have 20 tabs open in their browser. Or it may come recommended by a friend who suggests dedicating an hour to exploring.

Since many interactive documentaries don't work if the audience doesn't interact or participate, it is important to investigate these new forms of engagement – or new dimensions of the user experience – in order to determine when these techniques are effective and when they are not. The problem with interactive documentaries is not only that it is difficult to attract the attention of audiences in the first place, but also that their active engagements require a qualitatively different *kind* of attention than linear forms, one that comes with more cognitive costs and barriers. Rather than focusing solely on existing metrics to evaluate audience response to interactive documentaries, public interest media organizations should begin asking basic questions about the form itself.

To better understand the relationship between form and content, they should ask: Is the interface intuitive? Does it distract from the content or help it resonate more? Does the user feel incentive to explore further?

To better understand the educational potential of interactive documentaries, they should ask: Does interactivity help users develop a deeper understanding of a complex story or system? Does it allow information to sink in more deeply?

To better understand the affective experience of interactive documentaries, they should ask: Does interactivity or participation move users emotionally, foster greater empathy or a make a story more memorable?

Finally, to better understand how various interactive storytelling techniques might translate into social and civic impacts, they should ask: Does the opportunity to interact with documentary content or participate to its creation encourage users to get more involved in issue beyond their experience within the project itself?

These questions test the assumption that users want to interact, participate or immerse themselves in documentary story – as the NFB's Jean Sebastien Defoy put it, making a "decision at every turn" – as opposed to having a more passive, "lean back" viewing experiences. They may find that certain forms of interactive documentary aren't yet accomplishing their social, educational or artistic goals, or they only do so with certain audiences. Like many qualitative research questions, they are unlikely to surface definitive, generalizable answers, but they can help address gaps in understanding by putting quantitative audience data in greater context and guiding the design of future interactive documentaries. It will always be difficult to directly correlate or attribute a specific social change to a specific piece of media, but qualitative research can tell us much more about how new forms of documentary contribute to individuals and communities changing in incremental ways. The organizations I've profiled could ask these questions use the methods of usability testing, such as surveys, interviews and observation. However, these methods are optimized for more functional, utilitarian purposes and would need to be adapted to better understand the complexities of a narrative-driven project.

It is also important to reiterate that not all interactive documentary techniques are audience-facing. As Cizek's work demonstrates, digital technologies present an opportunity to explore not only new artistic forms, but new methods,

ethics, and relationships to the documentary subject. Given the challenges of developing audiences on the Web, the real potential of interactive documentaries may be found not so much in their ability to attract widespread attention (which often rests on their novelty), but in the opportunity to give voice and agency to subjects and communities. This requires shifting our emphasis from the impact of a media product to the impacts of a participatory *process* and fundamentally rethinking the relationship between storyteller, subject and audience. Video activists in the Challenge for Change generation approached new technology like the Portapak camera in this way. While their work did not reach mass audiences and create impact in the Griersonian tradition of public education, it did create tactical, observable (but harder to quantify) impacts by activating local communities and creating new channels of communication between citizens and their government.

How institutions measure audiences and impact inevitably affects both the form and content of media that they produce. In the case of interactive documentary, this means that the early development of the field and the form itself may be affected by what is most measurably successful or impactful. Most legacy media institutions still default to measuring impact based on audience reach, attention and limited forms of engagement. If we adapt mass media era metrics for impact (or simply augment them by measuring engagement in the form of social media activity), we may risk missing some of the more radical possibilities that interactive media technologies allow or the impacts that don't fit well with existing institutional agendas. If we follow Grierson's line of questioning and focus on the affordances of the media we already know ("What was the value of the film off Fogo

Island? Was it good for television? Mass media? What did it say to Canada? What did it say to the world?" or rely too heavily on what Low called "statistical evidence" of change ("For X dollars you reach Y people with Z impact"), we will constrain the possibilities of what interactive documentary can look like and the social purposes it can serve.

Metrics are not simply tools for retrospective evaluation of specific projects. They represent a way to test assumptions during the creative process and in a broader sense they can help crystallize a set of aspirations for the interactive documentary field. In that sense, they are critical in a transition from the traditionally "author-centered" creative process in linear documentary filmmaking to the more "user-centered" approaches of interactive documentary. These aspirations should attempt to integrate aspects of the Griersonian model of public education and the Challenge for Change model of participatory media making, but they should also take account of what Janet Murray identified as the "unique properties of digital media environments" and address the impacts that are possible when documentary storytelling becomes procedural, participatory, spatial and encyclopedic.[276] In order to realize the potential of these new forms of storytelling, public interest media organizations need to move beyond "vanity metrics" like pageviews and tweets. Instead, they should embrace open, flexible frameworks and definitions for what constitutes impact, as well as methods and tools for measurement that are better suited to the evolving modes of active engagement required by interactive documentaries. Ultimately, frameworks and tools for

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[276] Murray, *Hamlet on the Holodeck*, 71.

measuring impact will only be useful if they can be used to generate insights that inform creative decisions or guide strategic investments.

At this early stage in their development, interactive documentaries may not be a singular solution for public interest media organizations trying to develop loyal, engaged audiences on digital platforms. Techniques like nonlinear narrative structure or projects based entirely on user-generated content may even result in dead ends for interactive documentary. On the other hand, projects like *A Short History of the Highrise* or *Bear 71* that combine a linear "lean back" user experience with "lean forward" interactive engagements, may offer a clearer path forward – particularly at a time when audiences of all ages still consume a large amount of linear media. Regardless of how the form evolves, the process of making interactive documentaries gives organizations an opportunity to experiment with new relationships to both audiences and subjects – and new theories of change.

Just as the first generation of documentary filmmakers attempted to expand the artistic boundaries and political possibilities of cinema, today's interactive documentary makers are trying to expand the potentials of the Web and digital platforms for aesthetic expression and the formation of publics around social problems. Therefore, "pushing the boundaries of the form" and building institutional capacity should be considered important impacts, since they represent important stepping stones towards whatever comes next. At the same time, institutional impacts should always be counterbalanced by a better understanding of impacts on audiences and subjects. Otherwise, many interactive documentaries

may find themselves relegated to the "avant-garde" of digital storytelling, while organizations run the risk of "innovating for innovation's sake."

For public interest media organizations that are trying to stay afloat and adapt to a digital media environment with limited resources, it is important to step back and ask some basic existential questions. What are the core purposes we're trying to serve through documentary storytelling? Do interactive, participatory and immersive forms of documentary serve those purposes better than the ones that came before them? If not, can they in the future? Or do they serve new purposes that require a redefinition of the basic goals of public interest media?

It is likely that the original purpose of documentary film and public interest media – educating and informing audiences – will remain critical for many years to come. However, the three organizations that I have examined have less exclusivity in that role than they did in the pre-digital era, since publics increasingly have access to tools and platforms that enable them to form and inform themselves, sharing and discovering vast quantities of news, information and other nonfiction media. Legacy media organizations therefore have less certainty that their productions will reach wide audiences on digital platforms, forcing them to focus as much on the quality of "engagement" with media content as they used to on the quantity of "eyeballs" that were exposed to it.

In the American University white paper "Public Media 2.0: Dynamic, Engaged Publics," authors Jessica Clark and Patricia Aufderheide argue that public media in a networked, digital environment "may look and function differently, but it will share the same goals as the projects that preceded it: educating, informing, and mobilizing

its users."[277] Elaborating on these goals, they describe the mission of "Public Media 2.0" as "most fundamentally the ability to support the formation of publics—that is, to link us to deep wells of reliable information and powerful stories, to bring contested perspectives into constructive dialogue, to offer access and space for minority voices, and to build both online and offline communities."[278]

Although these goals have remained consistent, we have witnessed dramatic changes in the tools available to produce and disseminate information and stories, as well as the networked dynamics that shapes the way audiences find and experience information and stories, create communities and participate in public dialogue. The first generation of interactive documentaries produced by public media organizations represent a wide variety of experiments with these tools, examining how they can be used to tell powerful stories, create "public spaces" or dialogue and community, or in some cases, attempt to achieve both goals simultaneously.

It can be easy to get seduced by the affordances of a new set of tools, but there is inevitably a gap between the potentials that are projected onto these tools and the ways they are deployed and used in the real world. Just as it would have been impossible to predict the aesthetic possibilities of cinema or its social impacts during the early years of that medium, contemporary experiments with interactive documentary storytelling don't necessarily reflect their long-term potentials. As mobile devices becomes more pervasive and new platforms like virtual reality and wearable technologies emerge, our world is becoming mediated in ways that

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[277] Clark and Aufderheide, "Public Media 2.0," 2.
[278] Ibid., 29.

increasingly permeate our everyday lives – including our identities, our

relationships, and our roles as citizens and community members. Amidst this ever-

changing media landscape, we need to test interactive documentaries against the

core values that have motivated documentary film and public interest media, while

also acknowledging the circuitous process and generational nature of changes in our

media systems. By keeping all these things in mind, we will be able to find the best

ways to harness digital technology and steer the evolution of the documentary

tradition in the digital age.

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