FUTURE OF STORY: TRANSMEDIA JOURNALISM

AND NATIONAL GEOGRAPHIC'S *FUTURE OF FOOD* PROJECT

by

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ABSTRACT

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Future of Story: Transmedia Journalism and National Geographic's *Future of Food* Project

Directed by Associate Professor Mark Winokur

This dissertation describes the techniques of transmedia storytelling and examines them in the context of journalism. Its principle case study explores the National Geographic Society's (NGS) *Future of Food* project as an example of transmedia journalism. Having many proprietary media channels, the NGS is uniquely positioned to produce expansive stories on complex issues. The case study is contextualized through the history of the organization and staff interviews about structural and philosophical changes there. The project is qualitatively analyzed for its use of media form, media channel and story expansion. The structure of the network of stories is quantitatively analyzed through social network analysis. This study contributes the first detailed network analysis of a transmedia storyworld, an examination of an early instance of transmedia journalism and initial best practices for the scaleable production of it. These methods are framed through a novel use of Multimodality to explain the agency of media as nonhuman actors in Actor-Network Theory.

Analysis shows that though the *Future of Food* project was designed independently of existing concepts of transmedia storytelling, it mirrors those concepts well. The project builds a complex storyworld, expands content across media and seeks to engage diverse audiences. However, the scale of the storyworld arguably complicates engagement by defying mastery by committed readers. Network analysis also shows that the project maintains much of the broadcast

orientation of legacy journalism despite the more complex engagement found with its interactive channels.

This dissertation also contributes a practical taxonomy of media intended to inform the practice of complex storytelling in any industry. A careful distinction between the functions of content, media form and media channel informs effective identification, critique and design of stories for the scalable practice of transmedia storytelling.

This study was motivated by interest in journalism's adaptation to the changing media environment. Nearly all news media now has global reach, providing the public with an excess of choice for engaging with news. This lack of scarcity has resulted in the great difficulty of sustaining relevance and economic viability for legacy journalism organizations. Transmedia storytelling may provide some intriguing answers to these complicated problems.

DEDICATION

For my extraordinarily supportive wife Elizabeth Amidon Smith

For my uncle Raymond L. Moloney,
the first Moloney granted a Ph.D. by the University of Colorado, 1954

And for `etaoin shrdlu,` *the ghost of journalism innovations past.*

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CHAPTER 1: INTRODUCTION

"To fall into habit is to begin to cease to be." — Miguel de Unamuno

The State of Journalism

The Pew Research Center's State of the News Media 2014 opens with a surprising statement: "In many ways, 2013 and early 2014 brought a level of energy to the news industry not seen for a long time. Even as challenges of the past several years continue and new ones emerge, the activities this year have created a new sense of optimism – or perhaps hope – for the future of American journalism." (Mitchell, 2014) This optimism is centered around staff and bureau expansion by digital publishers and public engagement with news through social media and mobile platforms. However, the report does not shy away from the professional and industrial difficulties that gave Pew's ten prior annual reports an ever more bleak outlook. In the news business any positive trend, no matter how modest, is cause for celebration.

Not all the news was as optimistic, however. To the prior years' general downward trends they added the increasing consolidation of television ownership, a trend I and others argue may threaten the diversity of viewpoint in the nation's most popular news sources. Though they still generate more original reporting than their broadcast and new-media counterparts, U.S. newspapers and magazines continue to shed jobs and pages. Viable economic models continue to be elusive and more publishers are now blurring the lines between independent content and public relations in order to shore up difficult finances. None of the above bode particularly well for journalism's highly-prized and too-often neglected ideal of being the Fourth Estate watchdog.

Social media, though a powerful avenue to reach particular publics, may be culpable in that regard for its all-too-easy dissemination of mis- and disinformation and for the like-mind isolation it may enable. Pew described their highly tempered optimism this way: "If the developments in 2013 are at this point only a drop in the bucket, it feels like a heavier drop than most." (Mitchell, 2014)

Much industry attention is focused on digital storytelling technologies and, as implied by the Pew report's focus, on digital-native publishing (Jurkowitz, 2014). However, little professional or industrial attention is paid to how the narrative structure of journalism might change to better fit the current media environment. The attention of publishers is largely focused on finding economic or technological silver bullets to save a 20th-century storytelling structure. This dissertation will ultimately examine a possible narrative strategy for journalism that better fits changes in the mediascape brought on by, but not exclusive to, the Internet. It engages transmedia storytelling, in which a complex story is told in multiple media forms and across multiple media channels in an expansive rather than redundant way. This strategy is now in regular use in every media industry other than journalism, from Hollywood to Madison Avenue and Tin Pan Alley. It is even a key strategy used by some of the world's best-known toy creators. These industries use it to better find their publics in a dispersed and diverse mediascape, and increase both the length and breadth of their engagement. By adopting transmedia storytelling, journalists, I argue, can better reach specific and critical publics with important information, engage those publics longer and more deeply with often complex subjects, better represent a diversity of perspectives and crack more personal filter bubbles. Put simply, journalists can reach more people with engaging stories that better fit the contemporary media environment. As this

study of a 2014 story series produced across media by the National Geographic Society (NGS) shows, this strategy is finding a foothold at the top of the journalism industry.

Goals of This Project

This study examines the National Geographic Society's (NGS) 2014 *The Future of Food* project as the first example of designed *transmedia storytelling* by a legacy journalism organization. This study first proposes a practice-based taxonomy of the many ideas contained in the word *media* to enable a granular analysis of the project. A bright-line distinction between the functions of *content,* media *form* and media *channel* are necessary for the analysis and production of transmedia stories in any industry. This study then combines Actor-Network Theory and Multimodality as theoretical perspectives on a qualitative structural analysis of the *Future of Food* project. Though the producers of this project use terms such as "cross-platform" or "multiplatform" storytelling to describe it, I argue that the *Future of Food* project implements the ideas of transmedia storytelling as understood by both academics and practitioners in other media industries. However, I also argue that a shallow understanding of the role of social publication platforms like the blogs used in the project unnecessarily complicated the scope of the project, and that the network power of those media forms was poorly understood in the project's planning stages. The NGS is a unique organization with many ready channels on which to publish its content. Their case is unique because of this structure. I argue, however, that transmedia journalism is a scalable toolset that can be applied at all levels of the profession.

Contributions

This dissertation contributes a practice-based taxonomy of the definitions of *media*. This taxonomy is designed to not only clarify understanding of a word that has many often-conflated definitions, but also to aid the decision-making process for media producers and clarify the differences between now-common multimedia, crossmedia and transmedia storytelling.

This dissertation contributes a new framework for understanding the agency of inanimate actors in networks as understood by Actor-Network Theory (ANT). Using Multimodality as a theoretical framework, the agency of media in ANT is explained.

This dissertation also contributes a first-of-its-kind structural study of a transmedia project that examines how story networks are formed in the National Geographic Society's 2014 *Future of Food* project and how editor decisions influenced the structure of that network and how that structure may influence public engagement with its stories.

Chapter Overview

Chapter 1: Introduction

This chapter discusses the state of journalism in 2014, the year of this dissertation's principle study, outlines the goals of this project, its thesis and contributions to scholarly research.

Chapter 2: The Evolution of the 21st-Century Mediascape

Chapter two discusses prior analyses of changes in the mediascape that complicate the work of all media industries. It continues with cultural criticism of media and its influences on the public as context for the goals of transmedia storytelling, and explores how narratives change

in a diversifying mediascape. The chapter closes with a review of how journalism has responded to changes in the mediascape and how those early responses faired.

Chapter 3: Proposing a Practical Media Taxonomy

Chapter three examines the complex and conflated understanding of the word *media* and how prior scholars have worked toward clarification. The definitions applied by these scholars are necessarily post-structuralist to acknowledge the fluidity of these definitions. The chapter continues with a discussion of how that fluidity may also complicate the production of media content and proposes simplified definitions of *media form* and *media channel* and how they influence content and reception. The chapter closes with the clarified definitions of multimedia, crossmedia and transmedia storytelling that result from this taxonomy.

Chapter 4: The Origins and Structures of Transmedia Storytelling

Chapter four explores the primary source definitions of this recent understanding of the spread of compelling stories, the design that results from that understanding and examples from entertainment media. It closes with an examination and critique of Henry Jenkins' "Seven Principles of Transmedia Storytelling" (2009b, 2009c) as qualitative goals for transmedia projects.

Chapter 5: National Geographic's *Future of Food* and "Cross-Platform" Storytelling

This chapter briefly examines the history of the National Geographic Society and explores the changes underway in the organizational structure and storytelling philosophy there. The *Future of Food* project is contextualized through personal interviews. The principle study in this chapter is conceptualized through the dual-lens theory of Actor-Network Theory and Multimodality. This novel pairing forms a framework for the understanding of the network

structure of the project. The project is analyzed using mixed-methods social network analysis and network graphs, and discussed as an example of the transmedia journalism form.

Chapter 6: Conclusions

This dissertation closes with a broad overview of the *Future of Food* project and the complications its design created. The chapter discusses how transmedia projects might scale to more modest organizations than the National Geographic Society and proposes a set of strategic desicions for effective transmedia journalism production. Subjects for continued research closes the chapter.

CHAPTER 2: The EVOLUTION of the 21ST-CENTURY MEDIASCAPE

"Our extended faculties and senses now constitute a single field of experience which demands that they become collectively conscious. Our technologies, like our private senses, now demand an interplay and ratio that makes rational co-existence possible." — Marshall McLuhan

The Media Ecology

When today's media industries long for past halcyon days, the thing they miss most is a captive audience. During the 19th- and 20th-century glory days of big media, access to publishing was extremely expensive (Lessig, 2009). Reaching a mass audience required giant investment in infrastructure, from presses to broadcast transmitters to the sizable workforce needed to operate them and fill their air and space with content. On the other end of their channels were publics hungry for news and entertainment but with few options — a local newspaper, radio station or movie theater — for finding it. But the dawn of the 21st century brought a sudden crash in the cost of potentially reaching millions of people with the arrival of the public Internet, the World Wide Web and, as legal scholar Lawrence Lessig (2007, 2009) describes, a new "read/write culture." In the Internet age the public is no longer a simple passive recipient of one-to-many messages but an active participant in the creation of media. (Benkler, 2007; Castels, 2001; Ong, 1982; Russell, 2011; Russell, Ito, Richmond, & Tuters, 2008; Shirky, 2010)

If the public has moved from not only being the customer but also the competition, it now also has an expansive array of media in which it can work. From Marshall McLuhan (1995,

2011b) through a score of media scholars and popular pundits (Castels, 2001; Davis, 1995; Donnelly, 1986; Jenkins, 2006; Kittler, 1999; Levinson, 1999; Ong, 1982; Rose, 2011), we understand our move through the electric, electronic and digital ages as a 'Cambrian explosion' in the ecology of media. After centuries of relative stability in the means of communication, this sudden burst of variety arrived midway through the industrial age. The rapid evolution of the mediascape began a century before the Internet upended the professional media's producer-consumer relationship.

McLuhan saw these new media as extensions of our senses, expanding our interaction with the world beyond our immediate surroundings. If, for example, radio is understood as an extension of hearing and photography is viewed as an extension of vision, then electric-age media extended those personal senses around the globe and into orbit. McLuhan also argued, as medical science does (Abumrad & Krulwich, 2014), that consciousness is the natural combined interplay of our senses working simultaneously to decode the world. "Knowing," sensing and being aware of one's surroundings is a creative process of those senses working in unison. Before what he called "the electric age," media as extensions of our senses were "closed systems" with each extension — the wheel, the alphabet, the printed page — unable to interact (McLuhan, 1995, p. 94). However the instantaneous nature of media in the electric age, in which information is conveyed in multiple forms at the speed of light, allows these extensions of our senses to interplay as our biological senses do. Consciousness, he argues, is extended far beyond what the digerati now call "meatspace."

If each medium, regardless of content, is capable of changing our perceptions and interactions, then each possible storytelling medium would engage our interacting senses differently. By expanding a story across media we engage many sensory extensions. And if

McLuhan's perception of consciousness is true, our minds would infinitely combine, recombine and rearrange story elements in a deeper process of understanding than would be possible through a single medium alone. "Psychologists define hypnosis as the filling of the field of attention by one sense only," McLuhan said. "At such a moment 'the garden' dies. That is, the garden indicates the interplay of all the senses in haptic harmony." (McLuhan, 1995, p. 107)

Marxist philosopher Aleksandr Spirkin (1983) considered linguistic interaction as one of the highest expressions of consciousness. "Language is the highest form of thought expression, the basic means of controlling behaviour, of knowing reality and knowing oneself and the existence of culture," he wrote. "Speech is the material expression of thought. In speech the content of our intellectual world is objectified for others." In the Internet age conversation (and with it, consciousness, McLuhan and Spirkin might argue) has been extended profoundly by what publisher Tim O'Reilly (2005) first described as "Web 2.0." Social media from blogs to *Facebook, Twitter* and *YouTube* have made media more conversational. Perhaps they have also made the message more fleeting and temporal as illustrated by the *Snapchat* and *Instagram* "selfie" of the current moment. This change is closing the gap between what Walter Ong (1982) described as oral and literate cultures, and creating a "secondary orality." Ong argued that the rise of the written word fundamentally altered human thinking and disarmed words of their prior powers. In this change words that were once only audible and physical become visual and logical. Where oral language is fleeting, interactive and a product of immediate context and circumstance, written language is corrected, codified and captured. It is constrained intellectual property. The Modern Era in which mass, one-to-many media arose was undeniably a result of mass literacy. However, the highest communication achievements of the Modern Era — radio and television — began an age of secondary orality, in which words regained some of their

audible nature. Rather than the solitary experience of reading a written text, we again listened, albeit in passive and remote groups. The media spoke to McLuhan's (2011a) "Global Village." Since Ong's writing, secondary orality has accelerated with ubiquitous many-to-many communication channels and the renewal of the importance of conversation through Web 2.0 and social media. Virtually all media, whether produced by large enterprises or by individuals, allow space for feedback and interaction. Though Ong argued that primary orality was only possible for people who had no contact with writing, the shape of media in the 21st century brings us ever closer to some of its qualities.

Cultural Criticism of Media

Media has not always been perceived as bringing individuals closer to these qualities, however. Our relationship to the art, the message, the idea is changed in an age of cheap and easy copies. "The authenticity of a thing is the essence of all that is transmissible from its beginning, ranging from its substantive duration to its testimony to the history which it has experienced," asserted Walter Benjamin in The Work of Art in the Age of Mechanical Reproduction (1968). "That which withers in the age of mechanical reproduction is the aura of the work of art," he added, referring to the sensation felt when in the physical presence of the original creation (p. 221). Through reproduction the aura is lost, a "plurality of copies" replaces unique existence and a "tremendous shattering of tradition" feeds what he saw in 1936 as a crisis of mankind. For Benjamin the principle example of this was the young art of film, which by its nature is seen most often through one of a plurality of copies. Had he made it to the U.S. in 1940, he might have extended that view to nascent television.

Though the aura Benjamin attributes to original works of art certainly casts a spell, I would argue that the aura comes not only from the unique original work but from the intention of the artist. Benjamin seems to focus on craft as the value of the work rather than the vision or statement of that work. Aura can come from many sources when considering any great work. It certainly comes from the power of presence, but the aura of the best art also transcends presence and location and emanates from the idea within. Consider Pablo Picasso's masterwork Guernica. Though the scale of the original piece unquestionably influences its reading when one is in front of it, the work is still a powerful statement even when experienced as a curated result from a search on Google Images. In that and other works is not only the aura of presence and craft but the aura of idea. Any work, argues art scholar John Berger (1972), is read in the context of its surroundings. It becomes something different and new when the contexts change, and that can be understood as either a gain or a loss depending on one's perspective.

In any museum the observer will encounter Benjamin's aura of the original and see that aura in the faces of others in the gallery. But countless tourists separate themselves from that aura as they proceed to snap quick images of the object of their travels, valuing the reproduction over the original. They capture the thing in a snapshot rather than embracing the presence of the thing itself. "A way of certifying experience," Susan Sontag (Sontag, 1978, p. 9) wrote, "taking photographs is also a way of refusing it — by limiting experience to a search for the photogenic, by converting experience into an image, a souvenir. Travel becomes a strategy for accumulating photographs… Most tourists feel compelled to put the camera between themselves and whatever is remarkable they encounter. Unsure of other responses, they take a picture."

However, in the digital age we may consider the reproduction as adding aura in another sense. Does a dramatically downscaled copy of Guernica add aura to the work by advertising the

existence of that powerful original? Do the tourists travel to the mountain, building or artwork because of that extended and expanded aura? Benjamin criticized the nearly infinite reproducibility of a photograph, arguing that a medium without a singular original removes art from its ritualistic past and places it in the practice of politics (p. 224). His observation is certainly true. However, the age of digital reproduction adds a new layer. Now a photographic print, no matter how reproducible, has taken on an aura of the original its digital reproduction does not have. Here the value in using a variety of media to tell a story is evident: A photograph reproduced on a website has a different presence and appeal than a photograph carefully printed and hung on a gallery wall. Though both carry the same content, interaction with that content is fundamentally different.

Douglas Davis discusses this change in The Work of Art in the Age of Digital Reproduction (1995): "In another sense, the aura, supple and elastic, has stretched far beyond the boundaries of Benjamin's prophecy into the rich realm of reproduction itself. Here in this realm, often mislabeled 'virtual' (it is actually a realer reality, or RR), both originality and traditional truth (symbolized by the unadorned photographic 'fact') are being enhanced, not betrayed." (p. 381) What is original takes on a more subtle definition. We now develop, he argued, "a fine-grained sensitivity to the unique qualities of every copy, including the digitally processed photograph."

And the "age of reproduction," as the subjects of these two essays could be conflated, has brought on new art forms native to this environment. Early forms of collage and assemblage arose from reproduced art and media, and now in the digital sphere remix takes that logic to digital media, film, music and interactivity. Davis wrote, "when postmodern theories of

assemblage and collage inform our sensibility, the concept of aura (if not of its material realization) persists." (p. 384) Copying, he noted, is now high art.

In this writing Davis sees through from 1995 to 2014 sharply. "The proprietors of hand-held Newtons and Sharp Wizards will soon be able to call up entire videos and films as well as books on their hand-held screens. They will edit this information as they walk along and transmit the results, probably via a wireless Net, to friends and colleagues across the city, the nation, the world." "Here is where the aura resides," Davis adds, "not in the thing itself but in the originality of the moment when we see, hear, read, repeat, revise." (p. 386) With infinite reproducibility comes art that is designed to be reproduced. We are at what Benjamin described as a critical epoch, "…in which a certain art form aspires to effects which could be fully obtained only with a changed technical standard, that is to say, in a new art form." (Benjamin, 1968, p. 237)

Extending these thoughts to the read/write culture media scholar Jay Rosen describes as "the people formerly known as the audience" (2006), Benjamin writes "With the increasing extension of the press, which kept placing new political, religious, scientific, professional, and local organs before the readers, an increasing number of readers became writers — at first, occasional ones." He adds, "Literary license is now founded on polytechnic rather than specialized training and thus becomes common property." (1968, p. 232)

Whereas Benjamin writes briefly here of a democratizing cultural benefit of the growing mass media, his Frankfurt School colleagues Theodor Adorno and Max Horkheimer later cast suspicious eyes toward the homogenizing nature of the one-to-many media of the 20th century and its industrialization of culture (Adorno & Horkheimer, 1993). Journalism — though many practitioners would argue it is an aloof critic of culture — was certainly subject to the same trend through the 20th century, with *LIFE* magazine's reach into 8.5 million households by 1969

("Life, A Magazine, And Death," 2000) or the 22 million homes reached by network television news at the end of the century (Gunther, 1999). Writing first in 1947, Adorno and Horkheimer addressed the clear cultural power of mass, one-to-many media, exemplified in this passage:

> The step from the telephone to the radio has clearly distinguished the roles. The former still allowed the subscriber to play the role of subject, and was liberal. The latter is democratic: it turns all participants into listeners and authoritatively subjects them to broadcast programs which are all exactly the same. No machinery of rejoinder has been devised, and private broadcasters are denied any freedom. They are confined to the apocryphal field of the "amateur," and also have to accept organization from above. But any trace of spontaneity from the public in official broadcasting is controlled and absorbed by talent scouts, studio competitions and official programs of every kind selected by professionals. (Adorno & Horkheimer, 1993)

We have now seen "machinery of rejoinder" appear in the ease with which news and culture are discussed publicly online, and through the comment mechanisms now expected on almost any site or mobile app. But in the 20th century journalism was a highly professionalized industry with work rarely performed by those without training in its particular dogmas. The effects Adorno and Horkheimer saw were palpable there too. Arguably, there were a narrow set of voices evident in journalistic work at the peak of its industrial age, creating a pressure for conformity within the culture.

However, as fellow critic John Berger aptly pointed out, "fear of the present leads to mystification of the past." (Berger, 1972, p. 11) Adorno and Horkheimer's illustrations of their argument point to an all-too-common myopia as to what defines culture, as well as an elitist

judgement of high culture versus low culture that lets important events, trends and movements

escape their observation:

> A jazz musician who is playing a piece of serious music, one of Beethoven's simplest
>
> minuets, syncopates it involuntarily and will smile superciliously when asked to follow
>
> the normal divisions of the beat. This is the "nature" which, complicated by the ever-
>
> present and extravagant demands of the specific medium, constitutes the new style and is
>
> a "system of non-culture, to which one might even concede a certain 'unity of style' if it
>
> really made any sense to speak of stylized barbarity." (Adorno & Horkheimer, 1993)

Change underfoot can be easily missed, and what escapes the authors is how jazz as an art form

would later come to be understood as rebellion against mass culture and as a high form of

individualized expression. We now see the jazz musician's performance as a heroically personal

improvisation and their culture as a critical alternative. The illustration is elitist as well as tacitly

racist, a surprise from Jewish refugees of fascism.

Their origins as scholars in the Germany of the 1930s may, however, explain their almost

entirely negative view of the mass audience as a manipulable entity. History points to the abuses

of mass conformity and weaknesses of the culture and journalism industries in the face of it, but

attention only there is simplistic and ignores the positive power a mass audience and public

opinion can also have. From within the omnipotent culture industry Adorno and Horkheimer

describe, at the very time of their writing, we also see both subtle and overt rebellion against

conformity. This is evident from Hollywood in the historical allegories aimed at the heart of

McCarthyism (Frankenheimer, 1962; Kazan, 1954; Kramer, 1960; Kubrick, 1960; Preminger,

1960; Zinnemann, 1952), and in the *CBS News* broadcasts aimed straight at McCarthy himself

(Gould, 1954). Though it was owned by conservative Henry Luce and published from the towers

of Rockefeller Center, *LIFE* shook the reigning public opinion in 1951 with a powerful

photographic essay on a black nurse-midwife in the rural south. Rather than being patronizing,

the essay cast a heroic light on Maude Callen and her difficult work before the Civil Rights

Movement had dawned (W. E. Smith, 1951). *LIFE* readers donated more than $20,000 1952

dollars to build her a new clinic, almost $180,000 2014 dollars when adjusted for inflation

(Cosgrove, 2012). While the mass media was manipulated into support for the invasion of Iraq

(Van Natta, Liptak, & Levy, 2005), it also contributed greatly to military withdrawal from

Vietnam (Gould, 1968). Conservative-owned, mainstream press companies revealed the

corruption of the Nixon administration (Woodward & Bernstein, 2007).

Despite my arguments, Adorno and Horkheimer's view of mass media, or to use their

term "culture industry," has merit in being a view from above. From this viewpoint — one used

all too frequently and proudly in journalism — they see points of concern less visible from the

inside. In 1963 Adorno revisited the Culture Industry essay and clarified an important point:

"The culture industry intentionally integrates its consumers from above," he wrote. "The

customer is not king, as the culture industry would have us believe, not its subject but its object."

(Adorno, 2001) Though it aspires to inform the public debate, journalism can certainly resemble

Adorno's criticism by treating the public as a customer for a product. Transmedia journalism, I

argue, can potentially help good journalism find a powerful public, help debunk misinformation

originating both from above and below, and add more diverse voices to the journalism

conversation.

A 2004 collection of essays (Cox, Krysa, & Lewin, 2004), reexamines Adorno and

Horkheimer's arguments through a 21st-century lens. In the collection, authors such as Michel de

Certeau (p. 12) argue that though the consumers of mass, or industrial, culture do consume that

culture, they are not as passive as Adorno and Horkheimer describe. Certeau describes a Gameboy orchestra hacking ostensibly passive consumer devices to make musical instruments. This digital-age observation is a common one, expressed by the likes of Lessig (2009) and the art of remix, among others. But it is not a new ethic. Mass, industrial or consumer culture has always been remixed and hacked. What has changed, I argue, is the ease with which it reaches a public through inexpensive and potent new publishing options like the Web. In the intro to the collection, Julian Priest is quoted with a note of caution I share:

> 'Autonomous media' activity prefigures each wave of technological development before recuperation kicks in, and so caution is recommended: The existence of the network has rather than reversed the balance between "consumer" and producer in favour of the consumer, perhaps allowed new spaces for the market driven media to 'inhabit.' How do users maintain these developments as open and participatory, build independent network infrastructures, and maintain them as part of the commons? (Cox et al., 2004, p. 14)

In light of media industry legal efforts to erode the neutral Internet (Crawford, 2010) the seeming democratization of media in the last 20 years may be a fleeting circumstance. Adorno and Horkheimer's culture industry may be more persistent than one might hope.

Whether through democratization of access to publishing or through the diversification of commercial media spaces, one troublesome effect for all media producers is clear: The public has fragmented to a degree arguably not seen since the advent of the telegraph. For better or for worse, by choice or by algorithm, we find ourselves surrounded in the mediascape by like minds, familiar ideas and friendly echo chambers.

Nearly 30 years ago William J. Donnelly (1986) predicted that personal computers, cable TV and other media that enable a diversity of choice and equality of ideas would fragment culture:

> Having been nurtured in an Autonomy Generation, the Confetti citizen consumer will be inundated by experience and ungrounded in any cultural discipline for arriving at any reality but the self. We will witness an aggravated version of today when all ideas are equal, when all religions, life-styles, and perceptions are equally valid, equally Indifferent, and equally undifferentiated in every way until given value by the choice of a specific individual. This will be the Confetti Era, when all events, ideas, and values arc the same size and weight — just pale pink and green, punched-out, die-cut wafers without distinction. (p. 181)

Interestingly, Donnelly was a former advertising executive when he made his observations, and it is the advertising industry that, according to Eli Parsier (2012; 2011), the former executive director of community-organizing MoveOn.org, is now fueling this fragmentation.

Media companies such as *Facebook, Google, Amazon, Netflix* and others, in an effort to serve ever-more-precisely-targeted audiences to advertisers and to hold your attention with relevant search results and feed items, argues Parsier, are trapping the public in a deeper echo chamber than Donnelly imagined. He writes:

> It would be one thing if all this customization was just about targeted advertising. But personalization isn't just shaping what we buy. For a quickly rising percentage of us, personalized news feeds like *Facebook* are becoming a primary news source — 36 percent of Americans under thirty get their news through social networking sites. (p. 8)

Parsier's fragmentation differs from Donnelly's in, he argues, three key areas: "First, you're alone in it." Though Donnelly's observations of the diversification of offerings on cable television was important, there, Parsier observes, we entered a couple hundred niche's as a crowd. With the Web's personalization we may have no fellow travelers in our particular set of interests. Second, he notes, this filter bubble is invisible, driven by multi-input algorithms held as trade secrets. We cannot, if we tried, see what Google eliminates from the search results it feeds us at a given moment. Third, participating in the filter bubble is not optional.When we choose a news source of a particular subject line or political philosophy we are actively choosing to do so. But when *Facebook* hides the posts of conservative "friends" from the news feed of a liberal there would usually be no active decision to do so. In his 2011 TED talk Parsier stated:

> In a broadcast society, there were these gatekeepers, the editors, and they controlled the flows of information. And along came the Internet and it swept them out of the way, and it allowed all of us to connect together, and it was awesome. But that's not actually what's happening right now. What we're seeing is more of a passing of the torch from human gatekeepers to algorithmic ones. And the thing is that the algorithms don't yet have the kind of embedded ethics that the editors did. So if algorithms are going to curate the world for us, if they're going to decide what we get to see and what we don't get to see, then we need to make sure that they're not just keyed to relevance. We need to make sure that they also show us things that are uncomfortable or challenging or important.
>
> (Parsier, 2011)

At the beginning of the millenium legal scholar Cass Sunstein had warned of the potential difficulties that such informational and ideological isolation would present for democracy:

First, people should be exposed to materials that they would not have chosen in advance. Unanticipated encounters, involving topics and points of view that people have not sought out and perhaps find irritating, are central to democracy and even to freedom itself. Second, many or most citizens should have a range of common experiences. Without shared experiences, a heterogeneous society will have a more difficult time addressing social problems and understanding one another. (Sunstein, 2001)

Narrative in a Diversifying Mediascape

The fragmentation and filtering discussed above is not new. Humans and citizens of democracies have always filtered the information they accept, and were transmedia journalism to succeed in breaking through algorithmic filter bubbles, it would still encounter what there is of free will in the public.

The narrative, argues Walter Fisher, is the paradigm of human communication and the structure through which we evaluate the information we receive (Fisher, 1984, 1985, 1987). All meaningful communication takes at least an internal narrative form with its own characters who come into conflict over time. Arguing against the predominant rational-world paradigm that we make decisions based on evidence and line of argument, Fisher's "narrative rationality" argues that not only are we essentially storytellers, but that we perceive the world as a set of stories. We each choose to understand the world based on a chosen canon that justifies our points of view. These stories become our good reasons shoring up opinions and decisions based on subjective and usually incomplete assessments of the history, culture and people involved. We measure the rational value of a story on its probability, coherence and fidelity more than its evidence and rationality (Fisher, 1984, p. 2). In a nutshell, though we may wish to make arguments, a narrative

is more palatable to receive (and arguably better digested). Journalism's long-practiced mantra of "show, don't tell," (Eksterowicz & Roberts, 2000, p. 39) fits Fisher's arguments.

For narratologist Marie-Laure Ryan (2004; 2006) this media-ecological explosion challenges traditional, medium-specific study of narrative and calls for a medium-free narratology capable of examining stories "…through their semiotic properties (verbal, visual, or aural; spatial or temporal; single channel or multichannel) and through their cultural usage." (2006, p. xx) Her idea is to remedy the "split condition" of digital narratives and bring a functional understanding of story to spaces that so far fail to capitalize on it:

> While print literature, film, and drama have captured all types of audiences, electronic textuality speaks to the masses (or at least to the masses within a certain age group and gender), as well as to the "cool" intellectual elite, but it has yet to succeed with the broader educated public. I believe that it is only by learning to adapt narrative to the properties of the medium, whether this means giving more attention to the narrative design of games or consolidating the narrative structure of other texts, that digital textuality will be cured from its split condition. (p. xxiv)

In exploring how narrative works in a diverse array of forms, Ryan describes narrative as possessing some 11 modes represented as pairs. These modes include such points as external/internal, fictional/nonfictional and diegetic/mimetic. Rather than describe the full list of concepts in this paper, however, I note that Ryan locates the narratives that use these modes in two overarching camps: "Being a narrative" is when the object produced is understood by the recipient as intending to tell a story. "Having narrativity" applies to media that may evoke a script or allow space for an internal narrative to fill itself into the gaps. Music, she describes, may have the latter quality. (pp. 10-11) Perhaps a more medium-free description of these qualities

would be a spectrum with explicit narrative at one pole and implicit narrative at the other. Where classic narrative arcs like *Romeo and Juliet* or *E.T.: The Extra-Terrestrial* carry the viewer along in explicit narrative fashion, *The Nutcracker,* many of the short stories of Ernest Hemingway or the photographic essays of W. Eugene Smith do less so, leaving more story implied rather than stated. On the other end of the spectrum we might find Handel's *Messiah* or Eddie Adams' photograph of the Vietcong prisoner at the instant of his execution on the street in Saigon in 1968. Though the later is a frozen instant in the stream of time, it asks its viewer for an internal implied narrative of what happened before and after that moment and why. Though this spectrum, like Ryan's more complex analysis, seeks to describe narrative in a medium-free way, the affordances of various media, from text to photograph to music, certainly influence this outcome.

Media's influence on story is well analyzed by David Herman (2004) who crafts a dialectic investigation that opposes the thesis of narrative as being "medium independent" with the antithesis that "narrative is (radically) medium dependent." With the former the story is the story no matter where it lands, and with the latter that each telling of a story in a different space becomes a different story. His synthesis is that "the medium dependence of stories is a matter of degree." (pp. 51-56) Similar to Kress and van Leeuwen (2010; 2001), and Bolter and Grusin (2000), Herman argues that "stories are shaped but not determined by their presentational formats." (Herman, 2004, p. 54) Remediations such as language translations or the shift from written to spoken word (or vice versa) shape a story even in an attempt to hold its narrative arc.

Remediation (Bolter & Grusin, 2000) is a process where in the West artists and communicators have struggled to make the media itself invisible to the viewer, allowing focus on the content. Starting in the Renaissance techniques such as linear perspective and light shading

worked toward "immediacy" in which the viewer of the media would be truly immersed in the

artwork or "hypermediacy" which exploits the tension between this transparency and a stylistic

opacity of craft. This perspective echoes Barthes' description of a photograph as a transparent

medium. "Whatever [a photograph] grants to vision and whatever its manner, a photograph is

always invisible: it is not it that we see," he wrote (Barthes, 1981, p. 6). In this regard

photography remediates, or builds on the capabilities of, painting. As a new media channel is

created, it eventually builds with it a new media form. That form is then remediated by a new

channel upon its creation, but that new channel will eventually create a form of its own. An

example of this is that the sitcom is a form created by and for television. To reverse the view,

The Web remediates — among other forms — video, which is a form created by television.

Television remediates cinema, which remediates photography and theater. Photography

remediates painting and theater remediates text in a cascade back to cave painting.

Using their terms I argue that narrative, one mode of content carried by media, can also

be immediate or hypermediate. News reporting in particular may pursue the immediacy of taking

the reader there, or perhaps the hypermediacy of narrative structure that immerses while making

its crafting of ideas apparent. This latter case may be best illustrated by literary journalism, a

controversial blending of factual reporting with literary narrative technique that emerged in the

late 1960s. Literary journalism is discussed later in this paper.

Journalism Contexts

Journalism is far from a static institution. Despite an outwardly dogmatic adherence to

conservative professional principles, American journalism has steadily and persistently evolved

from the partisan activism of the country's early newspapers to the hyperbole of the popular

press to the direct and sober prose of the mid-20th-century. As the 21st century unfolds it continues through a chaotic evolution into a networked information economy that changes how news is produced, delivered and used.

One-to-Many and Many-to-Many Models

The 20th century is notable in the history of journalism (and information as a whole) for what Yochai Benkler described as the "industrial information economy." (2007, p. 1) "During this period," he adds, "the platform of the public sphere was dominated by mass media — print, radio and television." (p. 176) The rise of a mass media in the United States started a century earlier with the advent of high-capacity presses and daily newspapers, but achieved its apogee in the 20th century when radio and television joined print as major distributors of both news and entertainment. A principal cause for this, he notes, is the dramatic rise in cost of entry to the information marketplace. The resulting concentration of ownership of media outlets led inevitably to a vertical communication flow, from one publisher or broadcaster to many relatively passive consumers of news and culture. (p. 187-192) It is also what Lawrence Lessig describes as "read-only" culture as there is limited, if any, feedback from that audience (2009, p. 28). He argues with merit that this read-only culture was a phenomenon of the 20th century only, and that anomaly has ended with a read/write culture ascendant with the digital age (2007, 2009).

Benkler points out many disadvantages to this system as it relates to U.S. news media. He notes that since the information is filtered through a small number of people before it reaches an audience several magnitudes larger, information is inevitably lost. "In large, complex, modern societies, no one knows everything," he says (2007, p. 198). Reducing the number of contributors to the pool of information inevitably limits the quality and completeness of the information in a society. Feedback to the publisher and therefore fellow readers is inherently

limited, and the mass size of audiences homogenizes the news and limits outlier opinions in the public discourse. The concentration of media into relatively few hands also bestows an imbalance of power into the hands of a few, which potentially alters public discourse in their favor (p. 198-200).

However, Benkler also describes many of the advantages journalists themselves cite in how well the mediascape of the 20th century could work. At its best, the economic model under which legacy media largely still work provided an independence from the largesse of government or a small set of benefactors. Thanks to this commercial advertising-based model, Benkler notes, a public sphere outside the government was possible. Large, professional newsrooms, he adds, provide mass media with the manpower and resources to perform the watchdog function in a complex society. Lastly, he says, "their near-universal visibility and independence enable them to identify important issues percolating in society." They accredit information about issues, speed them onto the public agenda and raise their salience to the point of collective action (p. 197-198).

But many media scholars argue that these same features have already appeared within the informal structures of networked communication and have even performed the job better than the mass-media, one-to-many model in many cases (Gillmor, 2006; Russell, 2011); the networked public sphere is at least as immune to government intervention due to the dispersed nature of information sources (Benkler, 2007, p. 212); contributors to information gathering are unlimited in the networked environment (Russell, 2011); and issues salient to the public will inevitably rise to the fore (Gillmor, 2006). The outlook for legacy journalism's one-to-many model has never been so bleak, but pertinent to building a transmedia journalism is not whether this model is better than the many-to-many at certain roles or tasks.

At this writing both models exist and may exist side-by-side into the foreseeable future. The success of transmedia entertainment franchises already shows that both models have advantages in the delivery of the story. Within the news media the large staff of an entity like *The New York Times* provided for efficient and polished coverage of the terrorist attacks of September 11, 2001 and their aftermath. Cooperative teamwork by seasoned reporters, photographers and their editors resulted in a probing look at the cause and effect of that event. Though that work could arguably be done through the networked public sphere and citizen reporters, the unity provided by the organizational structure of the *Times* made for a very cohesive body of work that led to a Pulitzer Prize for Explanatory Reporting. For better or for worse the one-to-many form of journalism delivery exists and may continue to do so for the foreseeable future. It can be a valuable tool in transmedia journalism. Likewise, the nature of the networked public and its many-to-many model of news production and interaction is an asset. For example, several of the principles Henry Jenkins identifies in transmedia storytelling are native characteristics of the many-to-many form of communication. The networked sphere inherently fosters the principles of spreadability, multiplicity and subjectivity among others.

Convergence Journalism

"Convergence" is a central theme of early 21st-century journalism, in which once separate media meld into each other. Newspapers become TV and radio on the Internet, and those broadcast media become publishers of text. "The people formerly known as the audience," as Rosen (2006) described them, become news producers and distributors themselves. Superficially it appears journalists either ignored the digital age or simply hoped it would go away as legacy media have never seemed to find a solid foothold in the newer communication medium. But, "the problem newspapers face isn't that they didn't see the internet coming,"

writes New York University's Clay Shirky in a blog post examining the troubles in the industry. "They not only saw it miles off, they figured out early on that they needed a plan to deal with it, and during the early 90s they came up with not just one plan but several." (2009)

One of the oldest of those plans, first instituted by the Tribune Company of Chicago and Media General's *Tampa Tribune* in the mid 1990s, took the idea of spreading the reporting resources of journalists to create crossmedia delivery through multiple media platforms owned by those companies. For example, a story by a *Chicago Tribune* reporter would be written for the paper, the website, and for broadcast on *WGN* radio and TV. That reporter would often be interviewed on-air about the story. At both media companies this structure is still at work. It has been implemented elsewhere, from Sarasota, Florida to Lawrence, Kansas. (Quinn, 2006)

If the above approach is a bit of a pyramid — taking one story and spreading it across multiple media — the next definition is the inverted pyramid. Digital-era prognosticators have long talked about a singular "black box" device that would be used to consume Internet content, news and entertainment media content, and communicate through multiple channels (Dwyer, 2010). This black box now exists in the form of smart phones or electronic tablet devices, but it has not come to dominate media consumption — not yet at least. It is one of the array of sources news readers use daily. According to the Pew Research Center's "The State of the News Media 2014," slightly more than half of Americans get at least some news on their mobile devices (Mitchell, 2014). But Henry Jenkins disputed as simplistic the idea of "black box" convergence in MIT's Technology Review:

> What's all this talk about 'media convergence,' this dumb industry idea that all media will meld into one, and we'll get all of our news and entertainment through one box? Few contemporary terms generate more buzz — and less honey… There will never be one

black box controlling all media… Media convergence is an ongoing process, occurring at

various intersections of media technologies, industries, content and audiences; it's not an

end state. (2001)

The Pew Research Center's results might seem to prove Jenkins wrong. However his argument

addresses media form as well as channel, and those who cast a black-box eye toward mobile fail

to acknowledge that we continue to move through physical spaces lined with billboards, pick up

printed matter and watch television in monumental numbers. We continue to use nearly every

technology ever invented by man to some degree, as author Kevin Kelly argues (Krulwich, 2011).

Though mobile is of enormous importance in news publishing, the public will always be

receptive to media that offers an alternative experience.

A third and more popular interpretation of convergence journalism is also often called

"backpack journalism." If the above are pyramids of either direction, this might be an hourglass.

The idea taught for a decade in journalism schools is to funnel the multiple skill sets of legacy

media into one multimedia journalist who reports, writes copy, shoots pictures and video, and

records broadcast-quality audio. Then the work of that single person is produced for use across

multiple media platforms. For USC Annenberg's *Online Journalism Review* in 2002, veteran

reporter Jane Stevens (2002) wrote:

> I am a backpack journalist. I use a video camera as my reporter's notebook. I can put
>
> together multimedia stories that include video and audio clips, still photos grabbed from
>
> the video, as well as text. I can put together graphics information for Web designers. I
>
> can throw together a simple Web page. I can't do Flash yet, or simple graphics but they're
>
> on my list because they're handy skills to learn. I can do a little muckraking, if needs be,

as well as write a broadcast script and a print story. I'd rather be called Maxine Headroom

than Martha Stewart.

Critics of this method have long complained that it creates journalists who are jacks of all trades

but masters of no one media form. Though the product could be delivered anywhere, the

individual pieces of work — reporting, photographing, recording — might all suffer from lack of

proper attention. Sam Ford (2006), Jenkins coauthor and former blogger for the Convergence

Culture Consortium at MIT, wrote, "…each medium should deliver what it is best at and that

journalists in various mediums should work together — CONVERGE — to create a better news

product. The truth is that, when journalists do this, it probably requires MORE people working,

not fewer, to be done well." (Emphasis in the original.) But in the realities of the market, this

form of convergence holds a solid position. Smaller local news agencies with fewer resources

depend on this idea to reach across media within a limited budget. And in the realm of remote

and foreign reporting it can often be a valuable way to do the work. For reporter, producer and

educator Janet Kolodzy, it — like all aspects of journalism convergence — is about flexibility.

(2006)

Though convergence journalism is "multimedia" in that it makes use of multiple media

forms, or crossmedia when it uses multiple media channels, I argue it is not transmedia. In most

examples of digital journalism so far, the same content is simply repurposed with a new form or

sent down a different channel. The public gains no added value from reading or viewing the

same story in another form, and neither writing nor production changes to reflect the differing

users of those media. Randy Covington (2006), director of the University of South Carolina's

Ifra Newsplex notes, "The Newsplex philosophy, boiled down to a sentence, is that news

organizations will be best served if they focus on stories—not delivery platforms. The focus on

production once made sense, but in today's interwoven media environment, in which the public

tracks stories throughout the day from a lot of sources, news organizations need to meet that

public in places and formats that are meaningful and relevant to them."

When Clay Shirky (2009) noted that plans were made early, he was addressing the legacy

media's business model. But content experimentation was there equally early. Fred Ritchin

(2009), an New York University professor and former *New York Times* picture editor, described

this type of experimentation in a recent book on the future of photography:

> In 1994-95 I was asked by *The New York Times* corporation to create a model of the
>
> future multimedia newspaper… We introduced a function allowing the reader to
>
> immediately see articles from newspapers worldwide on the same subject to provide
>
> contrasting points of view. We developed a way to listen to music from a concert being
>
> reviewed, as well as a REMEMBER button that readers could click to see a photo of an
>
> aging singing group change to an image of them in their prime… There was a photo
>
> accompanying an obituary on the actor John Candy that the reader could click that then
>
> transformed into a short scene from one of his movies. We had a bilingual studio visit
>
> with an artist and a virtual tour of the interior of a house for sale (the viewer could listen
>
> to the piano). (p. 100)

Many of these mid-90s innovations have come to pass in the mediascape of 15 years later. But

they were not immediately adopted. He notes, "Sometimes there is a small window of

opportunity when it is possible to experiment with a new media model before it is back to

business as usual. It's as if the habitués of agreed-upon form are distracted momentarily by the

unknown, and for an instant the formulaic loses its ritualized status." (p. 100)

Throughout the wide scope of journalism — professional and not — there are many attempts like Ritchin's that seize the advantages in the way communication has changed. The early *New York Times on the Web* effort is instructive not only in terms of how new technologies change the way we can tell stories, but also by the fact that it was produced by one of the most influential legacy media companies. However, few attempts to re-imagine how journalists tell their stories have successfully changed legacy journalism thinking. The "formulaic" described by Ritchin has ruled the day, and stories produced using the same methods are simply delivered in the same way they were before. When new media are used, they simply repurpose the same content for that medium. As transmedia storytelling in entertainment shows, telling the story the same way in different media adds nothing to the larger story. New publics are engaged through different media, and when the story is told in ways native to each medium, new and deeper information is added to a complex story.

Earlier Narrative Responses to an Evolving Journalism Mediascape

Literary Journalism

Journalists have always strived to immerse their readers in their stories. How that has been done has raised as much concern from journalism's dogmatic adherents as it has praise from the public and those willing to embrace new forms. Literary journalism is one label that encompasses the forms that immersive work has taken from the personal, local journalism of the 19th century, to the book-length works and New Journalism of the 20th century. At times it has been the norm of journalism, at others a reaction to the formulaic journalism found in the mainstream press (Sims, 2007). "An elder of the tribe of Old Journalists once wrote to me, using an oddly mixed metaphor, that (literary journalist and Pulitzer winner John McPhee) '…is a

journalistic spellbinder, that's all… Mr. McPhee's journalistic warp and his literary woof make very thin cloth for any of us in the profession to use for patching our worn-out bromides,'" wrote media studies scholar Norman Sims (1984, p. 8). The statement about John McPhee, a 1999 Pulitzer Prize winner and one of the deans of the literary journalism form, points to one side of a long-term love-hate relationship. Literary journalism has been accused by the journalism establishment as playing loose with the facts and not respecting the principle of journalistic objectivity that reached its full growth by the 1950s (Many, 1996; Sims, 2007). Yet the work has stood the test of time admirably. In 1999 students at the New York University journalism department compiled a list of the 100 best examples of journalism in the 20th century, using judges from the top of the journalism profession (Stephens, 1999). According to Sims, 41 of the 100 were works of literary journalism (Sims, 2007, p. 280).

The form endures because it provides intimacy and subtlety as context for the subjects. The depth creates connections that the basic fact reporting of daily journalism neither has the time nor the space for. That intimacy lingers with readers. In his 1984 compilation of the form, Sims explained that, "Today, scraps of information don't satisfy the reader's desire to learn about people doing things." They live in complex social worlds using complex technologies, and a simple stating of facts only scratches the surface of an issue, a place or a station in life. "The everyday stories that bring us inside the lives of our neighbors used to be found in the realm of the fiction writer, while nonfiction reporters brought us the news from far-off centers of power that hardly touched our lives." (1984, p. 3) Sims describes literary journalism as "immersion reporting, complicated structures, character development, symbolism, voice, a focus on ordinary people — if for no other reason than that celebrities rarely provide the access — and accuracy." (Sims, 2007, p. 6) Examples through the 20th century start with John Reed, immortalized in the

film *Reds* for his coverage of the Russian revolution, James Agee and John Steinbeck during the Great Depression, John Dos Passos and Ernest Hemingway in the Spanish Civil War, and John Hersey on the heels of the atomic bombing of Japan. The term can also include the "New Journalists" of the 1960s, such as Tom Wolfe, Joan Didion, Truman Capote and Hunter S. Thompson. It has begun a new century through the words of writers like McPhee, Ted Conover, Susan Orlean and Sebastian Junger. Though its principle publication medium in the 20th century has been magazines like the *New Yorker* or *Esquire,* literary journalism has graced the pages of modern newspapers like the *Oregonian, St. Petersburg* (now *Tampa Bay*) *Times* and *Philadelphia Inquirer*. Internet publications like *Salon* and *Slate* regularly publish works that fit this category. Documentary forms of the graphic novel, like Joe Sacco's *Palestine* or Josh Neufeld's *A.D.: New Orleans After the Deluge* also merit consideration. And Sims notes that documentary films such as *High School, Model* and others aired by *PBS* fit the genre (2007, p. 284-286).

A mandate for accuracy pervades literary journalism, according to Sims who cites Tracy Kidder's living in a Data General Corporation lab for eight months to make sure every impression, every quote was correct. Kidder spent two and a half years on his book, *The Soul of a New Machine,* to put a face on new technologies and their inventors (Sims, 1984, p. 15). Time is the key to its production, and that is a scarce commodity in most newsrooms. At the turn of the century literary journalism's most common platform has been the book.

As we examine the possibilities of new implementations of journalism literary journalism bears a close examination. It fulfills the wish for greater immersion in a story, expresses context, explains complexity and captures the imagination of its public. These are all goals of transmedia

storytelling. It is also worthy of the journalism label, as Paul Many argued in a *Connecticut Review* article titled "Literary Journalism: Newspapers' Last, Best Hope" (1996):

> Literary journalism focuses on the exterior world in the same referential way that garden variety journalism does. But in doing so, it uses literary techniques that, by their very nature, beg for the inclusion of a wider sort of reality. The usual language and, with it, the content of journalism, thus becomes stretched past what newspaper editors would normally consider 'factual' or 'objective.' And this may be the source of its acceptance problems.

In that 1996 article Many was searching for an answer for newspapers not long after their continuing decline started. His impulse also applies today when any story must compete with thousands of others to engage the public. In a prior age where the average news reader had only a few possible sources, the straight, inverted-pyramid, cold-facts style of news reporting could be delivered without competitive concerns. With today's diverse and networked communications, telling a rich and compelling story — particularly for the complex subjects that lend themselves to a transmedia approach — becomes more important. Equally important would be regaining lost relevance to the public, and for that goal the public journalism movement proves instructive.

Public Journalism

On the heels of the 1988 U.S. presidential election — one widely considered to be a low point in the quality of political coverage by legacy media (Fallows, 2008; Rosenberry & St. John III, 2010; Rosen, 1999; Russell, 2011) — a group of journalists and scholars formed hoping to realign the relationship between the press and the public. Public journalism aimed to answer the legacy media's apparently waning relevance by embracing their position as fellow citizens rather than disinterested observers: the premise of public journalism is that a true separation of oneself

from the story is neither possible nor an effective activator of civic engagement. Journalists

should answer to the wishes of their public, report on what interests it and respond to what the

public feels is important and meaningful, argues media scholar Jay Rosen (1999).

Its goals were lofty but general, and the lack of specific actions a journalist or editor

might take to improve the public discourse remained undefined. "Part of the blame," wrote

journalism professor and public journalism proponent Phillip Meyer, "must go to the early

promoters of public journalism who have steadfastly refused to give it a definition or anything

more than a vague theoretical structure." (1995) That lack of structure, argues Meyer, left it too

open to negative interpretation by the reporters, editors and producers it wished to reach. It was

like "arguing over a Rorschach test." Meyer did define what it meant to him hoping to settle

some of the debate as interest in public journalism began to slip. His defining elements included

a desire to rebuild a community's sense of itself, a longer attention span by journalists who tend

to flit from one brief subject to the next, a willingness to go deeply into explaining the systems

that direct our lives, more attention to the rational middle ground of issues and less attention to

extremes, a preference for substance over tactics in covering political argument, and a desire to

foster deliberation. Jay Rosen described the movement he helped launch this way:

> Essentially, it was this: Politics and Public Life, journalism and its professional identity,
>
> could be renewed along civic lines, meaning the ties that held Americans together as a
>
> community of the whole — a public. If citizens joined in the action where possible, kept
>
> an ear tuned to the current debate, found a place for themselves in the drama of politics,
>
> got to exercise their skills and voice their concerns, then maybe democracy didn't have to
>
> be the desultory affair it seemed to have become. And maybe journalism, by doing

something to help, could improve itself and regain some of its lost authority (Rosen,

1999, p. 5).

Resistance from working journalists centered on the idea of control; that the public didn't have

the means to educate itself on what civic matters were important. It needed the media filter

(Remnick, 1996). Public journalism was not a movement to usurp the authority of the press,

however (Russell, 2011). It was an effort to reinstate the authority the press had in its perceived

role as the fourth estate. "Focusing the light of public attention on any one problem long enough

to spark discourse leading to a solution is the object of public journalism," noted Meyer (1995).

Public journalism was a pre-Internet movement, slipping off the stage just as the Internet

entered. And curiously, the interactive functions of a networked society brought the public into

the newsroom in ways similar to what public journalism hoped for. The ability to comment on a

story is arguably the kind of citizen input that public journalism idealized, and the manner in

which most media outlets do not interact directly with those comments also reflects how public

journalism sought to have input without losing its authority and professional status. As media

scholar Adrienne Russell noted, "Although it advocated inviting everyday people into the

conversation, it left journalists in charge of that conversation, seeing them as enlightened news

directors who would decide which voices would be included and how reality would be

presented." (Russell, 2011)

Public journalism was a concerted effort to reform the idea of the role of the media and

make its connection to the civic engagement deeper than it had been in nearly a century. Despite

criticisms, it opened the conversation on how the media perceives its public and what role there

may be for that public in the definition, production and distribution of news. Perhaps the ideas of

public journalism were discounted or ignored as the profession of journalism has not yet grasped

the changes that came with the arrival of the Internet and the networked information economy. As Russell argues, it left journalists in charge of the conversation. That leaves public journalism as imagined in the 1990s as perhaps inadequate to answer the needs of journalistic communication in a networked environment. Public journalism was, however, an idea that looked down the right road — one that leads to journalism as more of a conversation. As transmedia storytelling in the entertainment industry shows, telling relevant stories and allowing the story to be a conversation draws people deeper by giving them a sense of ownership in that story. Through transmedia journalism we can, as public journalism hoped, build relevance to the public and engage in a conversation about what news matters.

Though public journalism was considered a failure by the end of the 20th century, it has not disappeared. *The Engaging News Project* takes a lighter albeit similar approach, researching methods "for engaging online audiences in commercially viable and democratically beneficial ways." { | anon. ABOUT US | Engaging News Project, no date | | |zu:893722:J8PDC5JD} In a recent study (Curry & Hammonds, 2014), the organization and partner *Solutions Journalism Network* examined how news articles that offer a solution to a problem would resonate with readers. Their results, reported also by the *Nieman Journalism Lab* blog (O'Donovan, 2014) show a statistically significant increase in satisfaction with a news item that offers a solution to the problem reported. Though not public journalism in name, the organizations and their projects are its ideological offspring.

Collaboration Over Competition

Though it is the study site for this dissertation, the National Geographic Society is a rarity among media organizations for its horizontal integration. Few others command a host of titles

that include three magazines, two cable networks, radio broadcasts, a book division, a brick-and-mortar museum, a feature film division, a lecture series and hosted travel as well as the Web and mobile remediations of all those channels. For transmedia journalism to work elsewhere partnerships between the owners of a variety of media channels are necessary. This is not a new idea to journalism either.

The popularity of the convergence journalism idea of the 1990s led many legacy news organizations that did not themselves own multiple media channels to collaborate — newspapers with local TV partners or public radio and TV partnerships (Schaffer, 2013). This trend, as Adrienne Russell (2011) points out, is only increasing. "Today, more important than being first on a story is bringing his readers the best journalistic efforts on a particular topic, even when those efforts have appeared in other publications," she writes. Some collaborations have a quality of permanence, such as the *Miami Herald* and radio partner *WLRN* which share office space as well as reporters (Giovannelli, 2012). These collaborations need not be permanent. It is not uncommon for multiple news organizations to contribute reporting or other support to an investigation (Ellis, 2013; LaFrance, 2012). With reporting resources dwindling with the economics of legacy journalism, these collaborations may be a key to continue the tradition of investigative reporting. News organizations, whether legacy or "new media" can gain not only help in reporting, but access to different publics for their work.

This chapter discussed the evolution of our understanding of media, how a diversifying mediascape influences story and journalism's prior responses to those changes. Throughout that evolution, however, the definition of the word *media* has remained nebulous. The following chapter will examine definitions of media and propose a taxonomy that aids media producers in understanding three distinct functions that fall under this broad term.

CHAPTER 3: PROPOSING A PRACTICAL MEDIA TAXONOMY

"The electric light is pure information. It is a medium without a message, as it were, unless it is used to spell out some verbal ad or name. This fact, characteristic of all media, means that the 'content' of one medium is always another medium." — Marshall McLuhan

Definitions of Media

Media is a problematic word. Contained within it are a number of conflated ideas that are often contextually misinterpreted. It is a fleet-footed target for definition. To study and practice transmedia storytelling in journalism or any other media industry, some definitions need to be refined. "Media" embodies many ideas, from a socio-political entity, to the goo in a petri dish or the dab on an artist's palette. It can be a vocal stop in music, an ancient Iranian empire or it can be design of, and access point to, information. Media as a carrier of information is the subject of concern here. In order to describe the structure, function and creation of a transmedia story, a breakdown of the ideas contained in the word "media" is necessary. In this chapter I will examine the prior work in this area and generate a taxonomy of media designed to serve the practitioner and analyst of transmedia storytelling. Precise definitions are critical in order to study and make effective use of the affordances of the 21st-century mediascape. Critical to *multimedia, crossmedia* and *transmedia* story design are an understanding of the roles of *content,* media *form* and media *channel.*

There is an intriguing intellectual body of work toward a taxonomy of media, however, some it applies to a fundamentally different mediascape (Clark, 1975; Heidt, 1975; Heller &

Martin, 1995) and others (Kress, 2010; Meyrowitz, 1993; Ryan, 2006), though insightful and flexible, embrace the natural post-structural fuzziness of media categories. Ideas such as media form and media channel play more distinct roles in a transmedia story than they might elsewhere. For the analyst or beginning practitioner of transmedia storytelling, bright lines of understanding would be necessary until these functional differences become more intuitive to both producers and critics. I argue that a more structuralist understanding of the definitions of media will prove valuable to both this study and to the practice of transmedia journalism.

In some cases this task may resemble an attempt to define the borders between red and orange on the visible light spectrum. In others it may encounter instances where, metaphorically, light acts simultaneously like both a particle and a wave. The arguably arbitrary decisions that may be required here could, in the end, support the post-structuralist understanding of media in the works cited above. However the value of this current task is supported by the Dreyfus Model of Human Learning (Dreyfus & Dreyfus, 1986) which breaks apart learning and understanding into five stages, from novice to advanced beginner, competent performer, proficient performer to expert (pp. 19-35). Though the expert, through experience and practice, demonstrates a very intuitive understanding of tools and techniques that can be molded and recombined spontaneously to achieve a goal, the novice must start with clear and precise rules for action. A comparison might be made with the process of learning to peck Chopsticks on a piano keyboard for the first time, but with practice and experience this might lead to the improvisational virtuosity of jazz pianist Keith Jarrett (to whom I listen as I write this). It is for Dreyfus & Dreyfus' first three stages of human learning — novice through competent performer — that I propose a practical taxonomy of media that extends the work of Meyrowitz, Ryan and Kress.

Bright lines between all the definitions and functions contained in the word media will serve to better illuminate transmedia storytelling structure.

Though Marshall McLuhan (2011b) is one of the most influential scholars of media, he does not land on a concise definition of that term. McLuhan's work on the subject defies summary, embracing instead its quicksilver nature and our contextual understanding of it. His most notable categorization comes in his description of media as either hot and high-definition or cool and low definition, ideas which express the level of interaction they require from those who engage with them. "A hot medium is one that extends one single sense in 'high definition,'" he wrote. "High definition is the state of being well filled with data. A photograph is, visually, 'high definition.' A cartoon is 'low definition,' simply because very little visual information is provided." (p.39) Rich in detail, the photograph leaves less for the imagination to fill than does a cartoon. We participate more in the decoding of the cartoon by engaging imagination, memory and experience to understand its simplified images, where a photograph often fills in the finest details. Hotter yet is cinema with its immersive, high-definition screens, rich soundscapes and explicit narratives. A half century ago McLuhan's ideas helped us understand how rapidly the mediascape was beginning to change and what the influences on us and our social interactions would be, but his view of media was a broad one.

Joshua Meyrowitz (1993) steps much closer to my goal of a clear, bright-lined distinction between the ideas contained in the word *media* by differentiating metaphors of media as *conduits, languages* and *environments.* We easily understand media as a conduit for their capacity to deliver content. They can be the pipe that carries information to the public. Because of their differing affordances, media are also languages, using varying intellectual or sensory means to communicate. As an environment a medium may encourage different consumptive

behaviors. Here Meyrowitz echoes McLuhan's expression of media as hot and cool, using the telephone as an example of a media environment that encourages a relatively informal and bidirectional exchange of information. Meyrowitz did not define a particular taxonomy of media in his work, rather he looks at the three metaphors above as alternative understandings of media. Though these three ideas are valuable, his eye was on these three metaphors as competitors rather than as structures to be used in combination.

Narratologist Marie-Laure Ryan (2004, pp. 15–20, 2006, pp. 16–25) extends both McLuhan and Meyrowitz further. In defining a transmedial narratology for the digital age she classifies "approaches" to media as *semiotic phenomena, technologies* and *cultural practices.* Unlike Meyrowitz, Ryan is assembling a set of coexisting ideas. As semiotic phenomena, Ryan examines the verbal, visual and aural ways that information and stories move, and how they influence the message. These sensory experiences manifest themselves in media as forms of language, image and music, each with distinct affordances in how they communicate. Language generally communicates abstractly and intellectually where image and music more often communicate spatially and emotionally. With media technologies she breaks down the broad prior categories into specific tools and materials used to express those senses. In the language category she includes manuscript writing, print, radio and telephone among the array of possibilities. In sound she includes the variety of musical instruments, and in the visual she includes photography, film, television and digital encoding of images. As cultural practices, she argues, media are influencers of and influenced by societal evolutions, concerns and actions. Though it is a mix of the semiotic and technological, "the press" is considered a category of media in its own right. Ryan's work builds significantly on Meyrowitz and Werner Wolf (2002) and has proven of great value to my own categorization. However, her three parallel approaches

to media are designed as lenses of analysis rather than structures for practice, and her triad of media as languages — *language, image* and *music* — neglect the *object* as media.

Though these prior scholars address the affordances of nonverbal media, Gunther Kress (2010; 2001) argues they are rooted in a linguistic conception of communication. We interpret these nonverbal modes through the same frame we interpret the verbal. Communication, he argues, is never so simple. It is always multimodal:

> Instances of commonly used modes are speech; still image; moving image; writing; gesture; music; 3D models; action; colour. Each offers specific potentials and is therefore in principle particularly suited for specific representational/communicational tasks. However, in communication several modes are always used together, in modal ensembles, designed so that each mode has a specific task and function. Such ensembles are based on designs, that is, on selections and arrangements of resources for making a specific message about a particular issue for a particular audience. (2010, p. 28)

Kress also differentiates between technologies of dissemination — radio, newspaper, television, etc. — and technologies of representation — writing, speech, image, etc. The latter reflects his description of common modes of communication above. Kress builds on prior analyses to address the practice of media design, discussing the distinct roles of *rhetor* and *designer* in message construction (Kress, 2010, p. 43). However, his detailed analysis often conflates the definitions and roles of *content, form* and *channel* in pursuit of the much broader idea of *mode.* Before I describe the interplay of ideas of *content, form* and *channel,* in the design of a story, a few critical definitions of media should be discussed.

Definitions

In building a taxonomy it is pertinent to start at the top — the *domain* level with all the definitions of "media" used in English and most Latin-root languages. Many other languages may not suffer from the same conflation of ideas found in English. Definitions of *media* are many, from the media of cultivation in microbiology or agriculture, the media of communication under discussion here, as well as other definitions that include an ancient Persian empire, a vocal stop in music, arterial wall structures in mammalian anatomy and wing structures in entomology. The media of cultivation and communication share a vehicular purpose whereas the other definitions are derived from the concept of a position in "the middle." At the second rank — *kingdom* in a traditional taxonomy — media might arguably be broken into categories of *cultivation, communication* and *etymologically divergent definitions* for those with disparate origins.

The Socio-Political Actor

One of the most common and most politically manipulated English definitions of "media" is that of the socio-political actor. This is "the media" often argued as a truth-spinning influence on public discourse or defended as the "fourth estate" as understood by members of the press (Carlyle, 1893; Rosen, 2013). It does not describe a single media industry, but rather the perceived power exerted by all media at once. This power certainly exists. Though media producers argue their work exists to invest our lives with needed, useful or entertaining information, many agree with McLuhan (2011b, p. 269): "All media exist to invest our lives with artificial perception and arbitrary values." Entire disciplines of academic research address this influence and it is beyond the scope of this dissertation. However this understanding of "the media" fits Ryan's *cultural practices* definition and, albeit less elegantly, Meyrowitz's definition

of media *environments*. This definition of the word is a singular noun: "The media is…" Other uses of the term are plural: "The media of communication are…"

A Media Taxonomy

The classic biological taxonomy is a hierarchical structure composed of nested categories that sit within each other like Russian Matryoshka dolls. The following taxonomy (Figure 3.1) presents a similar hierarchy though the definitions it makes are somewhat quicksilver in nature. The top-to-bottom flow it illustrates may be a common order of operations for a message *designer:* one who takes a message defined by a *rhetor* and designs what media will best communicate and convey that message. It is but one possibility between its three main groupings of ideas: Content, Form and Channel. The series of media design decisions between these three groupings may be linear, moving in either direction. In other cases they may form a convection pattern in which the flow reverses at the bottom end of the channel group shown to be re-influenced by content and form before the story is finally published. For example, after determining which channel would best reach a tightly-targeted public, a creator may need to reevaluate content and form. Because of the constraint of space, the figure that follows is limited, showing neither every possible arrangement of media nor subcategory that may exist. It is designed to provide an example that would allow extrapolation to other circumstances. The chart is not exclusive.

Figure 3.1: Media of Communication
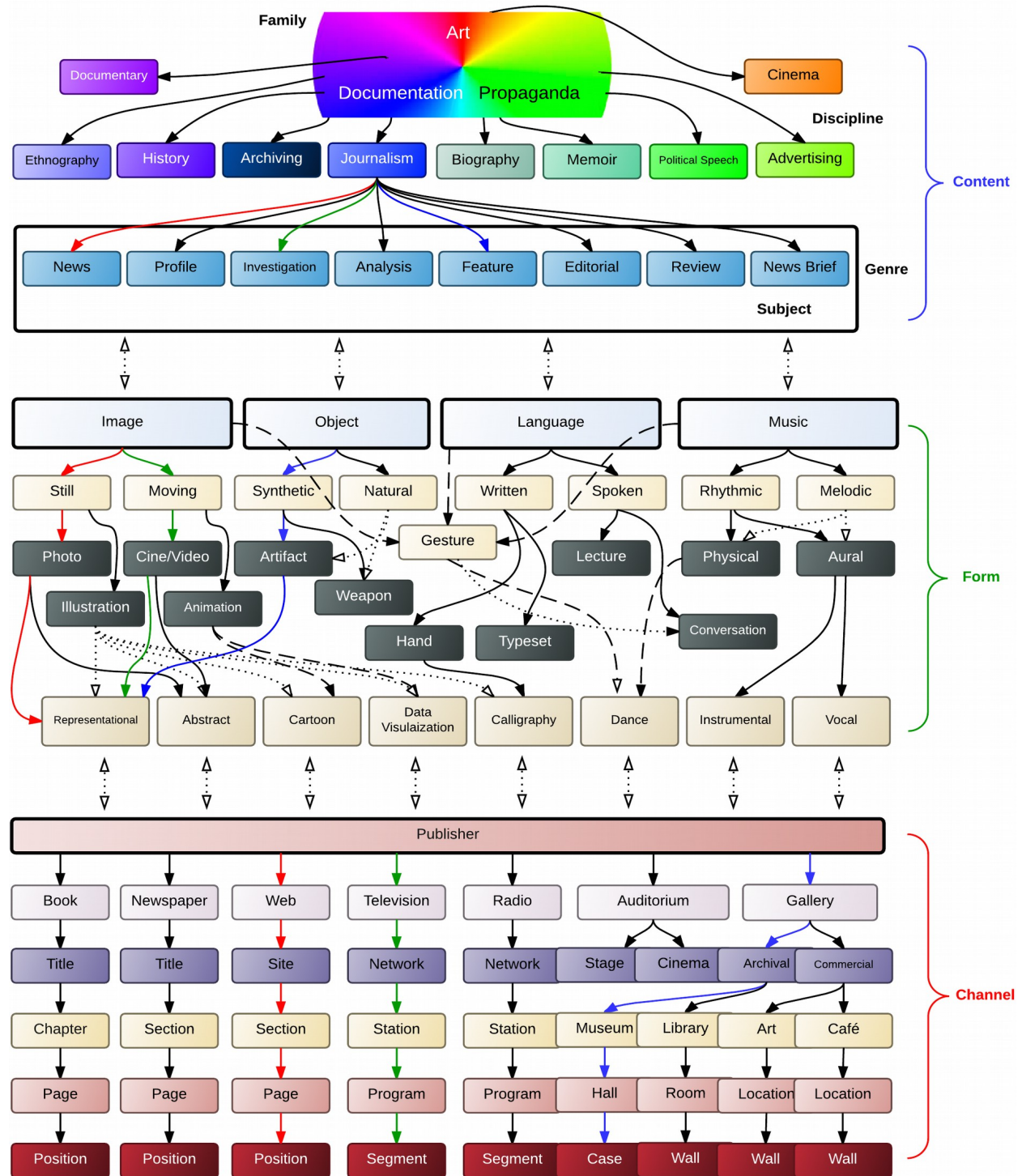
The many ranks in the chart are broken into three principle groups: *Content, Form* and *Channel* as seen on the left side of the chart. Though Meyrowitz used a triad structure including "environments," "languages" and "conduits," and Ryan defined "cultural practices," "semiotic phenomena" and "technologies," their triads are understood as parallel ideas of media rather than as a hierarchy. This fluidity is valuable in analysis, but less so in production. Rather than approaches or understandings of media, each of the three groups in Figure 3.1 is necessary in the design of a message. All three must be engaged in a story design, though the order of the groups is not fixed. A designer may prioritize one group over the other in making decisions that best serve the needs of a particular story.

Two examples are illustrated in Figures 3.2 and 3.3. The former illustrates a design decision flow for a museum-displayed artifact that would add both context and the affordances of physical presence with or connection to a story. Figure 3.2 illustrates a case in which the nature and story of the artifact is given priority. In such a case the form in use is predetermined by the artifact. Decisions about where it could be displayed come last: *Content > Form > Channel.*

Figure 3.3 illustrates a video investigative piece. In many stories within a transmedia project it may be desirable to to target a particular public that could best use the information reported in that story. Here the set of decisions about which channel would best reach that public immediately follow the choice of subject. The channel chosen is would likely determine the form, as one wouldn't publish a written text on a television broadcast: *Content > Channel > Form.* Equally possible are patterns where the channel or form desired may determine the content. There are six possible permutations of the three groups, each of which is discussed in detail next. The order of decisions (or operations) within each group would most probably remain fixed even when the order of the groups shuffle.

Figure 3.2: Form-First Decision Flow
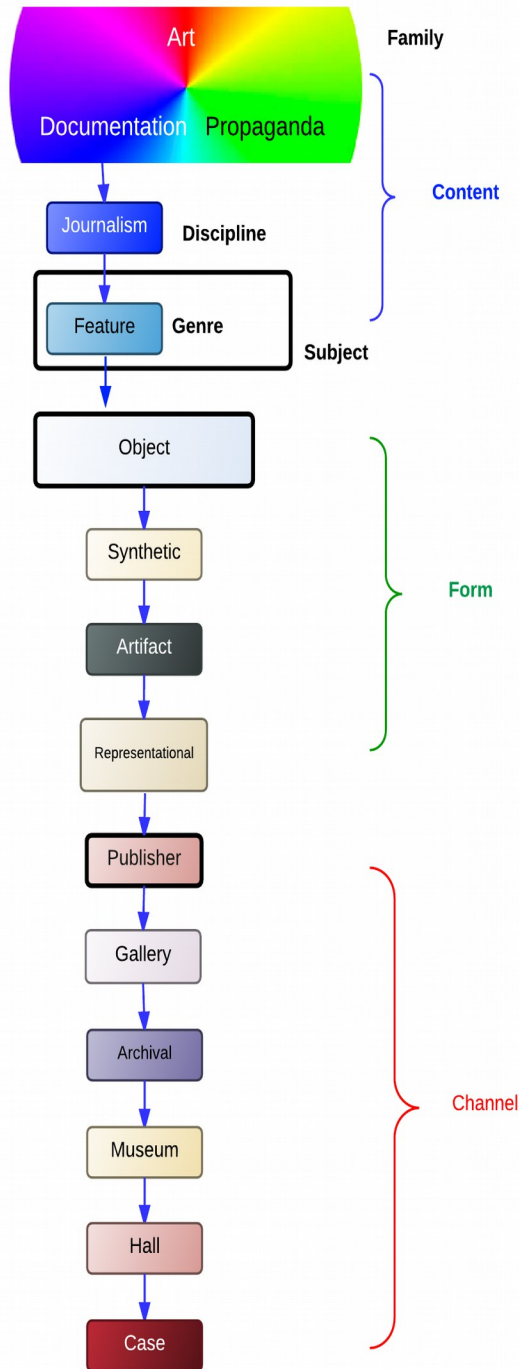
Figure 3.3: Channel-First Decision Flow
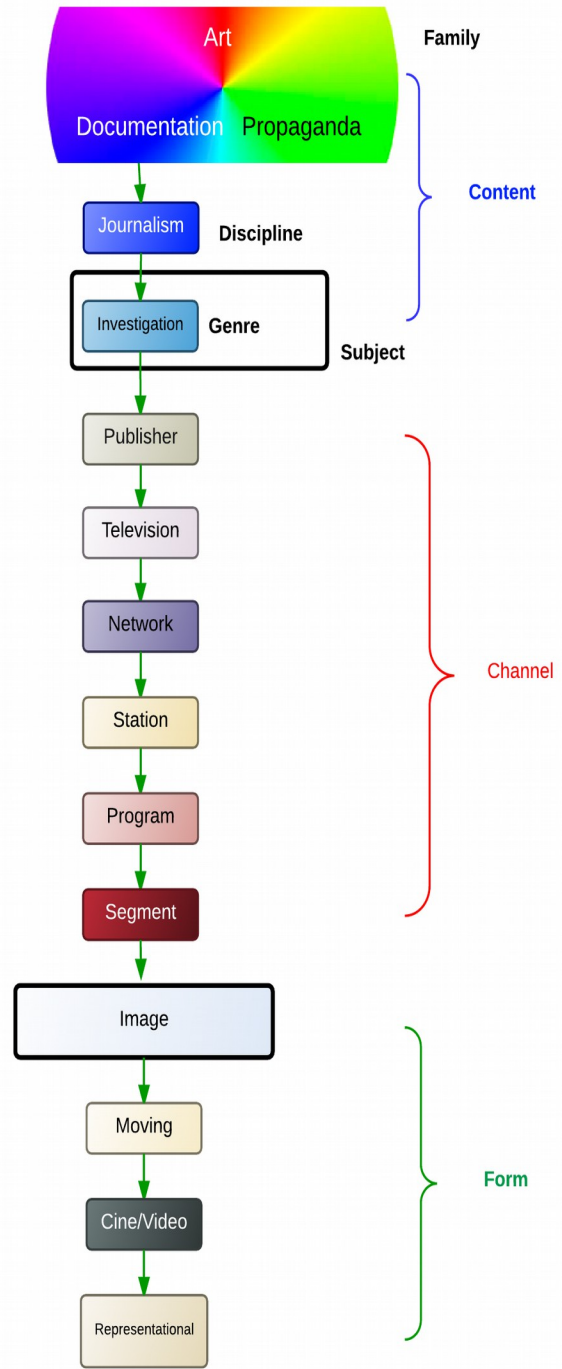
Content

Though communicative media can be understood as blind carriers of content that decisively shape the message (McLuhan, 2011b), content must be considered in its design and delivery. Here, Kress points out, is the work of the *rhetor* — the arguer, the teller of the tale (Kress, 2010, p. 43).

In Figure 3.1, differing *families* of media are spread across a three-poled spectrum in which these families (or *industries*) blend from one to the next. Between the poles of Art, Documentation and Propaganda one might derive varying disciplines of media production. For example, the discipline of archiving (rigorously clinical in nature) may directly derive from the documentary pole of media family. Related disciplines such as journalism may land exactly at that pole in the hands of one journalist, but find itself drifting toward the art or propaganda poles in the hands of others. Likewise cinema directed by Steven Spielberg may once be close to the art pole as in the case of *Close Encounters of the Third Kind* (Spielberg, 1977) but somewhere between the art and documentation poles in the case of *Schindler's List* (Spielberg, 1994).

Below Discipline, the ranks of Genre and Subject overlay. In Figure 3.1 the discipline of journalism is broken into a variety of journalistic genre common in the industry. Subject and genre are not sequential, however. In many cases the kind of subject being reported will determine the appropriate genre, and in other cases the need to fill a genre will send a reporter in search of a suitable subject. Here is one pair of ranks where the motion through this flow may be more of a convection pattern than a linear one. Other disciplines derived from the spectrum of media families (or industries) would split into a similar array of genres. With the Spielberg examples above we see two genres: science fiction and historical drama. Each has a specific

subject from among the possibilities within that genre. In the case of *Schindler's List* it was the subject that determined the genre used (McBride, 2011, p. 427).

Form

The next grouping of ranks in Figure 3.1 illustrates the cascade of process decisions regarding the media *form* a story may take. These Meyrowitz describes as languages, Ryan as semiotic phenomena, and Kress more broadly as modes. Media forms include text, audio, motion picture, photograph, illustration, artifact, lecture, music, dance, performance, game and more. They are location independent. For example, you can find the form of text not only in print or on the Web, in video and games, but also in sidewalk chalk and skywriting. Media form shapes not only how a message is conveyed, but orders the way we understand it through the affordances that these forms exploit. Text appeals to the intellect, for example, while images and musical forms appeal more to emotion and vicarious experience (Barthes, 1978a, 1981; Ritchin, 2013; Sontag, 1978).

Pairing information or a story with the best media form can be critical to how well that message is received. From here we move from the work of rhetoric to that of design. Design is a "prospective act," Kress argues (2010, p. 43). It looks forward to how a message might be structured, what modes it may employ and what aspects of the message's reception and interpretation might be predicted.

The upper rank in the illustration is divided into four broad forms media might take: *image, object, language* and *music.* Three of these — image, language and music — are described by Ryan (2006) and Wolf (2002). Kress describes far more in his discussion of the "modes" of communication: "speech; still image; moving image; writing; gesture; music; 3D models; action; colour" (2010, p. 28). However, he conflates ideas there: still images and moving

images should be considered subcategories of image, and the idea of 3-D models is too specific for the broad category he discusses.

If we consider the media form used in telling a story separately from the story itself, we may find a rather limited set of affordances that each form engages. Form alone, without a story or message to carry, is not media, I argue contrary to McLuhan (2011b, p. 21). Language is merely uttered sounds or written symbols, image is lines and tones in space, an object is shape, texture and mass, and music is a series of tones in a particular order. However, a message or a story is what makes these sensory experiences meaningful, and thus media. Their affordances must be taken in concert with the message they communicate.

All of these media forms communicate both *explicitly* and *implicitly.* For example, language can only explicitly state what is contained within its words, but we humans imply the emotional significance of those words. Computers parse only the literal meaning of the code they are provided, but a human will always compare his personal life with that of the characters or situations constructed and visualized by the computer code. We will seek emotional connection even where it is not stated. A good author will design a message to communicate implicitly as well as explicitly.

Image would include any graphic nonverbal symbols engaged by vision alone — drawings, icons, photographs, motion pictures, painting, etc. With the message between humans assumed, an image explicitly shows objects and the relationships among them. From that very simple point we understand a story or an argument by implication, prior experience and emotional sensitivity. We decode emotion on the faces of people represented in the image in one case, or the story we perceive within the image may evoke an internal emotional response in another case. A complex story will communicate emotion both explicitly and implicitly.

Object is understood here to be the media of touch. We physically interact with these media by feel or force. We receive a message by savoring the texture of an object. We pick up or sit on these media. Some object media are designed as such from the start, as would be the case for a sculpture or a 3-D model intended for physical exploration. We also use tools — either our own bodies or an object held — to send a message. Though objects may be seen, visual interaction with objects is not a requirement. They may convey their message without being caught in our glance. A gesture or a weapon certainly sends a communicative message, either by vision or touch. I include here non-verbal and non-musical sound as an object. Anne Fernald, the director of the Center for Infant Studies at Stanford University explains (Abumrad & Krulwich, 2007), "Sound is touch at a distance." When we hear an explosion, a crunch, a crash or a nonverbal emotional utterance we construct emotional message from the impact of sound waves on our bodies.

Language, though it is received through the senses of vision, touch and hearing, performs very distinct functions from the others. It may engage the intellect and express thought where the others more directly express emotion. It is unique, as Ryan (2006, p. 19) points out, in its ability to "represent the difference between actuality and virtuality or counterfactuality" whereas the other umbrella forms would have great difficulty stating a negative. They cannot easily demonstrate the absence of something. In language emotion, beauty and the flow of time are implied. They are constructed from reassembled context and the experiences of the reader rather than demonstrated explicitly. As a result, emotional connections between story and reader may be weaker here.

Music can be aural, as in the case of a symphony or a rhyme, or visual as in the case of a dance or a rhythmic gesture. The former shares characteristics with language, and the latter with

image and object. Nonverbal, or instrumental, music alone communicates purely by implication. We construct a sense of drama or story from the the emotional power of the musical structure but unless combined with language or image it has difficulty being explicit.

With media form the "light is both a particle and a wave" metaphor is very applicable, for a painting or a photograph may also be an object. In a dark and destructive moment we could while no one is looking reach up and glide a finger across the texture of a painting or crumble the weathered and yellowed emulsion of an antique photograph. Though it may be physically possible to touch an architectural model or to walk around it, we engage with it as an image not to be touched. In those cases and others we may choose first to interact with an image and then as an object or vice versa. Grafitti is often both language and image by the design of the author, and font designers would argue that they communicate on the image level while conveying language. Poetry may create music or an object of language, and as Walter Ong (1982) observes, language can be an object used as a spell or a weapon.

Not included as media here are the senses of smell and taste. As Ryan (2006, p. 18) notes, "It is only our habit of not ranking cuisine and perfume among media — probably because they do not transmit the proper kind of information — that prevents this list from including olfactory and gustatory categories." Though the smell of bread may send us traveling through time and space in storytelling ways or tastes may convey emotion with as much immediacy as any other storytelling technique, these are personal and internal stories that are difficult to transmit from one person to another with the same meaning. Kress echoes this, arguing "As their primary function is not that of representation and communication, there is a question whether they should be considered as modes — even though we know that they can be used to make meaning and to communicate." (2010, p. 79) At this time, at least, we have not yet successfully sent interpersonal

message or constructed stories with taste or smell, though instrumental music and abstract visual art may offer clues as to how.

As Figure 3.1 illustrates, these four umbrella categories cascade into an ever diversifying and recombining series of more specific media forms. Two examples are illustrated by following the red, blue and green arrows on the chart. The red begins in the *content* group at the *family* of documentation, is further refined to the *discipline* of journalism and the *genre* of feature with particular subject unspecified here. At the *Form* group an image is narrowed to a still image, more specifically a photograph that is representational of its subject. For any media forms that might be engaged in communicating a message, an enormous array of very specific media forms with increasingly more particular affordances is at a designer's fingertips.

Channel

The next grouping of ranks in Figure 3.1 move from the designer's decision above of *how* to tell a story and ask *to whom* should it be told. Described by Meyrowitz as a conduit, Ryan as a technology and Kress as technologies of dissemination, media channel is a connection point with an audience. Channel could also be understood as the *place* a story is told, but this implies an expectation that the public must come to the teller to hear the story. Often, particularly in journalism, we will want to take the message to the public rather than depending on them to come to us.

Each media channel has particular affordances, and examples include newspapers, magazines, books, television, radio, gallery walls, auditoriums, museum galleries Websites, mobile devices and more. I choose the word channel carefully, though it, too, can suffer from conflation when the same word is used to describe a particular television data stream. All media come in pairs, McLuhan argued, one containing another. "The content of writing is speech," he

observed, "just as the written word is the content of print, and print is the content of the

telegraph." (2011b, p. 19) The content of *channel*, I argue, is *form,* and the content of the *form*

are the subject, genre and discipline of the *content* group in Figure 3.1. As McLuhan argued, all

of these channels influence the message so "conduit" is an inadequate descriptor as it implies an

unfiltered and nonpolluting pipe. The word channel evokes a meandering ditch that may add

stuff to the fluid it carries. "Platform," a commonly used term in journalism for this function,

implies a benighted pedestal for the information. "Venue" is also an inadequate term as that

implies a place to which one travels. Many media channels are adept at carrying a message to

you in particular, where you already are.

At the highest level here (Fig. 2.1) may be *publisher* as these individuals, corporate

entities or government agencies likely have a variety of narrower channel categories at their

disposal. The Tribune Company, for example, owns not only newspapers, but television and

radio. The NGS, as described in a later chapter, owns multiple magazines, television channels,

mobile apps, a museum, book division, radio programs, a feature film production company,

lecture series, guided travel and online blogs. Each publisher may reach a particular set of wide

demographics or engage in one side of a national or international debate. They may focus on

particular varieties of message or prefer a particular subset of media forms. Here we start the

cascade of decisions of where we want to reach particular and ever more refined subsets of the

larger public.

Once a particular publisher is chosen and accessed (in the case of advertising or

entertainment they may be contracted, in the case of journalism or activism they may be

courted), the designer and publishing collaborators must decide which category of channel

should be used, from newspapers or magazines, radio and television, auditorium or gallery

among others. These broad categories break the public at large into a complex Venn diagram of groups — TV viewers may be demographically different than news radio listeners, printed newspaper readers or lecture attendees.

Each of these may subdivide further, into online or offline categories, between broadcast networks or cover titles. In the case of a gallery presentation a choice would be made between archival galleries like libraries or museums and commercial galleries like collectible art showrooms or cafés. With each level as seen in Figure 3.1 the potential public reached is narrowed to ever more specific groups. Though among all TV viewers, for example, those of the Fox News Channel differ substantially from those of CNN or MSNBC (Bachmann, Kaufhold, Lewis, & Gil de Zuniga, 2010; Keeter, 2012; Mitchell, 2014; Mitchell, Gottfried, Kiley, & Matsa, 2014).

Decisions about what newspaper or magazine section, which station or program, which wall or case narrow the interactions to increasingly smaller groups of people. Interest in foreign political developments will draw readers to the news sections of the *New York Times* while others may gravitate toward features. Differing programs on the same broadcast network attract different members of the public, and even particular segments of a show, standing features in print, sections of a site or app will draw a progressively more particular audience.

Bundled Narrowcasting

The power of this granular differentiation of channel and the segmented publics they reach acts as an answer to our new understanding of the myth of the mass audience. We leave behind the diluting effects of *broadcasting* (Glick & Levy, 1962), and embrace the targeted functions of *narrowcasting (Eastman, Head, & Klein, 1989)*. With narrowcasting, publishers aim to more directly serve defined subsets of the public, making for themselves, as Eastman, Head &

Klein argued (p. 283), a viable economic model in a crowded mediascape. This entertainment-
and advertising-derived philosophy has seen slow awareness among many journalists who cling
to the concept of informing the public at large. In contrast, the advertising profession long ago
abandoned unified broadcast messages to the U.S. consumer and began targeting particular
messages to narrow demographics. Not only does advertising work to find you in the media with
which you engage, but after it does, strives to speak directly to you.

For the journalist this also presents an opportunity. To satisfy the philosophical goal of
the *fourth estate —* the role of informing the voting public — journalists can address their work
to particular groups who might most benefit from the information. Once determined and
addressed, those targeted publics can be more directly reached through the use of specific media
channels. In a transmedia project or even the work of journalism at large, bundling such
narrowcasts would not only more directly serve publics but reach a broad array of smaller
groups.

For many legacy news media this can be a complicated proposition. A typical legacy
news organization owns both the content production and publication tasks. For example, the *New
York Times* employs a staff of journalists and editors who produce work primarily for that one
newspaper, its website and mobile platforms. Though the work of that staff may be syndicated to
other publications, it is original *New York Times* content written and photographed for the *New
York Times* audience. Syndication is a secondary repurposing.

This is an old circumstance. The content of journalism has long been something created
to fill a paper, magazine or a broadcast license. Benjamin Franklin owned a press before he
created the content to print with it. And the advertising-funded model of American journalism

drives most of the earnings through the channel rather than the content. The publication

traditionally pays for the news.

By contrast, a Hollywood production company licenses its content to varying chains of

theaters, online video streamers and television channels. Though they were once vertically

integrated directly to the consumer through their own chains of theaters, they have long broken

that early 20th-century model. Advertising has always been a channel-free media enterprise,

designing content to be used in channels owned by others and thus very responsive to the needs

of each story it tells (or sells). Freelance journalists, channel-free wire services, syndicators and

new journalism enterprises stand to take advantage of this idea, funding their work by licensing it

to the owners of traditional and nontraditional media channels.

Nested Forms, Nested Channels and Meta-Media

Electric-age McLuhan pointed out in the 1960s that the content of one medium is another

medium. The content of the electric light, he noted, was all that can happen under its glow. This

observation was prescient of the digital age where media nest one within the other in ever greater

frequency.

Excitement persists around the nested media forms of a multimedia age. Since the

appearance of the Mosaic browser in the early 1990s, "the Web" has demonstrated the nesting of

both media form and media channel. Almost any document accessed there is an assemblage of

language, image, music and (arguably) object forms, making them vibrant experiences. The

perceived "newness" of this, however, is the afterglow of the newness of the Web itself. So

captivated are we by this disruptive technology that anything we associate with it is often

misunderstood as new as well. However, bundled forms have existed since before illuminated

texts brought image to language. The recent journalism fascination with rich multimedia presentation on the Web and mobile is simply an echo of what cinema brought at the end of the 19th century — moving and still image combined with text, speech, illustration and more. For journalists trained in the newspaper world these are exciting changes. For the public it is probably much less monumental. Nonetheless, the design of 21st century media benefits from the understanding that when combined or nested one in the other a collection of media forms does become something new. Cinema is a classic meta-form, combining the affordances of all the forms it assembles to a sum of more than the parts. We see it as its own form, capable of distinct communication powers.

The Web also demonstrates the bundling or nesting of media channels. In terms of audiences, the Web as a whole is too diverse and dispersed to be of itself the strategic end for a story. It is impossible to publish content to the Web as a whole just as it would be impossible to publish content to all newspapers in the world. Rather, the Web should be understood as a mammoth collection of potential channels. We publish to particular sections of particular publications on particular Internet domains.

Forms and Channels in Combination

Media channel and media form are critical to the definition and differentiation of three arrangements of media common in media production: multimedia, crossmedia and transmedia storytelling. Kress argues that all media production is multimodal and such differentiations are meaningless. "As far as I can see the metaphor of multimedia has much the same relation to the present communicational landscape as the metaphor of horseless carriage has to the age of the car," he notes (2010, p. 30). Though Kress is correct — any definition of multimedia can be

applied to the first historical instance of text and images used in combination — the practice of media production requires the clarity of definition.

Multimedia — One story, many forms, one channel

Multimedia is a catch-all term often applied capriciously to anything new, as Kress illustrated. Personal computers, CD-ROMs and Websites have been described with this term over the last three decades. But a lack of clarity on what this term means creates confusion with the subject under study in this dissertation. With multimedia, many media forms are used — from text to audio, motion pictures, photographs or graphic data visualizations among others. Those forms combine to tell a story more comprehensively, as Richard Wagner aspired with the gesamtkunstwerk, or "total artwork" of his Ring Cycle (Packer & Jordan, 2001). With multimedia many media forms are used to tell a story in a single media channel. Contemporary journalism puts multimedia to work on news websites and in highly designed projects like "Snowfall: The Avalanche at Tunnel Creek" by the *New York Times* (Branch, 2012), a massive project combining text and pictures with motion graphics, video and maps.

Crossmedia — One story, many channels

This is a term that most likely originates in the advertising industry, and it means to tell a story in many different media channels. Coke added "life" to the 1970s on TV, in print and on radio. In journalism you can see very old examples of this in the venerable wire services. Agencies like The Associated Press, Reuters and others distribute a story through multiple newspapers around the world as well as magazines, radio and TV. But it is the same story, the same set of facts in largely the same arrangement. The distribution may include text, pictures and video, but they are all telling the same story in the same way.

A few interesting new agencies, like *I-News at Rocky Mountain PBS*, have implemented this model on a regional scale to better distribute investigative journalism to news outlets strapped for cash and reporters. Where multimedia makes use of the different affordances of media form, crossmedia makes use of the different affordances of media channel. Where the use of form in multimedia appeals to the different learning styles or modes of understanding, channel is used in crossmedia to reach a broader audience.

Transmedia — Many stories, many forms, many channels

Transmedia storytelling implements the many media forms of multimedia and delivers them on the many media channels of crossmedia. In addition it tells many stories rather than one, and does it expansively rather than redundantly. The following chapter will thoroughly explore the origins of transmedia storytelling, its structure and deployment.

The breakdown of media into the groups of *content, form* and *channel* above will illustrate the concept of transmedia storytelling and serve to analyze and critique the National Geographic Society's *Future of Food* project in chapter five.

CHAPTER 4: THE ORIGINS ᴀɴᴅ STRUCTURES
ᴏꜰ TRANSMEDIA STORYTELLING

"Once a thing is put in writing, the composition, whatever it may be, drifts all over the place,
getting into the hands not only of those who understand it,
but equally of those who have no business with it."
— Socrates

Discussion of Prior Works

In the last chapter I sought to extend and clarify the definitions and taxonomy of media,

breaking it into three substantial groups of ideas: *content, form* and *channel,* and discussed how

these might be arranged into common 21st-century production terms such as multimedia,

crossmedia and transmedia storytelling. This chapter will deepen the discussion of the latter,

which is the production practice of interest to this dissertation.

Henry Jenkins (2003) defined transmedia storytelling in MIT's *Technology Review.*

Entertainment media companies design a franchise to be delivered across multiple channels in

ways that inspire the viewer to actively engage in the story. Those viewers sleuth out answers to

clues and questions, play related games, and create their own media that enriches the experience.

Jenkins explained fully in his book *Convergence Culture:*

> A transmedia story unfolds across multiple media platforms, with each new text making a
>
> distinctive and valuable contribution to the whole. In the ideal form of transmedia
>
> storytelling, each medium does what it does best — so that a story might be introduced in
>
> a film, expanded through television, novels, and comics; its world might be explored

through game play or experienced as an amusement park attraction. Each franchise entry

needs to be self-contained so you don't need to have seen the film to enjoy the game, and

vice versa. (Jenkins, 2006, pp. 95–96)

Jenkins also notes that transmedia storytelling is not new; he takes his readers back to the Middle

Ages and relates how the Christian story was told to a largely illiterate public. "Unless you were

literate, Jesus was not rooted in a book but was something you encountered on multiple levels in

your culture." (p. 119) Stained glass windows, statues and religious art line the walls and altars

of even modern Catholic and Orthodox churches, homes, art, and books echoing how the

Christian story was long told. This diversity of form and channel reached the public on each

individual's terms, literate or not. It and expresses Walter Ong's (1982) idea of secondary orality

discussed in chapter two and Gunther Kress' argument that all communication is multimodal

(2010, p. 28) as discussed in chapter three.

Jenkins finds a model for transmedia storytelling design in *The Matrix* science fiction

franchise (Wachowski & Wachowski, 1999). Watched alone, the films were somewhat

mysterious and vague, with what seemed key pieces of the story only hinted at or missing.

Questions the stories raised were left unanswered. For the average viewer watching a film with

mild interest it simply seemed like an inventive and nontraditional story told without the usual

heavy hand of Hollywood. There complete story resolution is the convention. For the passionate

Matrix fan the mysteries were an invitation to engage and explore, to hunt for answers across a

mediascape of games, animated shorts and comics. Fans drill into the material for answers. "The

sheer abundance of allusions makes it nearly impossible for any given consumer to master the

franchise totally," Jenkins notes (2006, p. 99).

Using a vast landscape of media makes for a synergistic story as well, where as Jenkins says, "the whole is worth more than the sum of the parts." (p. 102) The transmedia implementation was planned from the beginning of *The Matrix* franchise. Producer Joel Silver said about the creators' process in an extra feature on the production DVD of *The Animatrix* animated shorts, "I remember on the plane ride back (from Japan) Larry (Wachowski) sat down with a yellow pad and kinda mapped out this scheme we would do where we would have this movie, and these video games and these animated stories, and they would all interact together." (2006, p. 101).

In 2009, media studies scholar Christy Dena (2009), now a consultant on transmedia to the entertainment industry, performed an extensive and detailed analysis of the practice for a University of Sydney dissertation. At the core of Dena's work is the idea of "transmodality," as a transmedia project involves not only narrative, but also game modes of storytelling. She also examines Aristotle's "dramatic unities" to look at how the story works in tandem with the real world of its participant readers, a concept Jenkins discussed at approximately the same time as both "extractability" and "performance."

Spanish media scholar Carlos Scolari (2009) contemporaneously sought to refine the definition of transmedia storytelling through the theoretical lenses of narratology and semiotics, and describes its power in branding and commoditization of intellectual property. He dissects the Fox transmedia television franchise *24,* examining the franchise for what channels were used to tell its complex story, from television to comics, books, games, the Web and mobile devices. The series' many texts constructed multiple different consumers, he argues using Umberto Eco (1984) as support for the semiotic side of his argument. Each text talks to a perceived reader — a teenaged comic book reader perhaps — and by reading the text the actual reader accepts the role

given whether they reflect the perceived reader or not. If I, a 50-year-old academic, read such a comic I would be forced into a choice of roles. Do I reject the text? Or do I accept the role of the reader the author is addressing? If I accept (consciously of unconsciously) I would be "constructed" momentarily as a new hybrid reader, sharing cognitive characteristics with both a teenaged version of myself and the 50-year-old journalist, academic and teacher I have become.

His analysis also revealed strategies used to expand the central, television-based storyline into other media channels: the creation of interstitial microstories, parallel stories, peripheral stories and user-generated content. Each of these expansions opens a new door to the storyworld for different consumers and a new commercial avenue for the producers and advertisers. Transmedia storytelling is not simply adapting a story from one medium to another, he argues, but an expansion across form and channel that reflects contemporary cultural consumption. Here his arguments push toward mine: that not only does transmedia storytelling provide for richer storytelling, but it provides a method for the producers to reach ever-more-dispersed publics. "This textual dispersion is one of the most important sources of complexity in contemporary popular culture," Scolari writes (2009, p. 587).

Wired magazine contributing editor Frank Rose extends the argument that the structure of the contemporary mediascape requires an approach that matches the patterns of the public. He writes in his book *The Art of Immersion: How the Digital Generation Is Remaking Hollywood, Madison Avenue, and the Way We Tell Stories:*

> This isn't the first time the way we tell stories has changed. Every major advance in communications has given birth to a new form of narrative: the printing press and moveable type led to the emergence of the novel in the 17th and 18th centuries; the motion picture camera, after a long period of experimentation, gave rise to movies;

television created the sitcom. The Internet, like all these technologies in their earliest

days, was at first used mainly as a vehicle for retransmitting familiar formats. For all the

talk of 'new media,' it served as little more than a new delivery mechanism for old

media, from newspapers to music to TV shows. And as disruptive as that has been to

media businesses, its impact on media itself is only beginning to be felt. Stories are

becoming games, and games are becoming stories. Boundaries that once seemed clear —

between storyteller and audience, content and marketing, illusion and reality — are

starting to blur. (Rose, 2010)

Though he never uses the *transmedia* descriptor in his work, Rose examines entertainment

franchises and their use of alternative and complex storytelling methods that in combination

describe transmedia storytelling in intimate detail, and provides rich comparative examples of

the form. From the alternate reality games used to both promote and extend the *The Dark Knight*

and *A.I. Artificial Intelligence* storyworlds, to the leaked music of a Nine Inch Nails album as

both story expansion and deep fan engagement. Rose describes the "hive mind" created by the

fragmented storytelling of *Lost,* the gameful storytelling of *The Office* and the continuing

expansion of the *Star Wars* universe.

While arguably one of the richest and most expansive entertainment transmedia

franchises yet seen, *Star Wars* was not intentionally designed as such. It is what Marie-Laure

Ryan described in a recent talk (2013) as a bottom-up, or "snowball effect" expansion of a

transmedia storyworld. "In a snowball effect," she said, "certain stories enjoy so much

popularity, or become culturally so prominent, that they spontaneously generate a variety of

either same-medium retellings or cross-media illustrations and adaptations." *Star Wars* was

initially conceived as one film, then three, then nine by creator George Lucas as the popularity of

the franchise grew. The fate twist of being allowed to keep merchandising rights for the original film, anticipated by the producing studio 20th Century Fox to be of slim value, fueled its massive expansion into games, toys, books, comics and other media from the outset. The *Star Wars* storyworld *emerged.* It was not initially *designed* (Rose, 2011, pp. 69–75). Ryan contrasts this bottom-up emergence of a storyworld to the "top-down" design of *The Matrix* as described by Jenkins (2006). She notes, "…if transmedia storytelling is going to be truly novel narrative experience, then it is the top-down planning that will make the system more than the sum of its parts." (Ryan, 2013)

Ryan quotes Jenkins (2009a) that not all stories are suited for transmedia storytelling. The best may be constructed when less concentration on plot or character is needed. However, this may lend itself to a chaotic development of the overall story. Hypertext fiction, an idea only ever beloved by academics for its emergent stories, is an interesting example of this kind of nonlinearity. This is perhaps why, she argues, that science fiction and fantasy seem to lend themselves to storytelling:

> I believe that the more we are immersed in a storyworld, the more we dread the moment when we will be expelled from it at the end of the text. The desire we may develop for other stories taking place in a given storyworld comes mainly from the fact that once we have invested the cognitive effort necessary to its mental construction, we would much rather go back to a familiar world than to have to construct a new one from scratch. In addition, the more a story world departs from the real world, the greater the cognitive effort needed to imagine it. This may explain why fantastic and science fiction worlds tend to generate more transmedia activity than "realistic," everyday worlds: since it takes a greater effort to construct these worlds, we want a return on our cognitive investment,

and this return takes the form of spin-offs that provide an easy access to the storyworld.

(Ryan, 2013)

Here Ryan may be making a prescient argument against the possibility of transmedia journalism.

If the cognitive effort to conceptualize a fictional storyworld is part of its immersive draw, does

this mean that transmedia journalism would by its link to real (rather than fictional and

imagined) worlds lack the same immersive power? The same argument made by Jenkins about

fictional stories should apply to journalism as well: not all stories are suited for a transmedia

implementation. We surely fail to notice when an entertainment transmedia storyworld does not

gain traction with a public. That lack of traction likely means that any transmedia extensions just

slip by unnoticed. In journalism we will inevitably see the most success from real storyworlds

that inspire immersion and commitment, and quickly forget those that do not. The successes are

more likely to be subjects with deep personal relevance or resonance where the connection to

one's personal life is clear (Petty & Priester, 1994). In fiction it is storyworlds that appeal to an

individual's imagination that immerse us. Careful planning and critical judgement are required

from both media industries to avoid wasted investment on transmedia stories that might fail to

gather public engagement.

For M.J. Clarke (2012) the investment comes from both the producers and consumers of

a transmedia story, and I use the term consumers here reflecting Clarke's analysis of transmedia

storytelling on television as an economic endeavor as much as a storytelling one. "The more a

viewer invests time and money in these texts," he writes, "the more consumption capital is

accrued and the more valuable are subsequent encounters with the text in all its forms." (p. 5)

Clarke describes the transmedia storytelling on contemporary entertainment television as

"tentpole TV," in which a centralized and serialized story text broadcast over the air or on cable

is expanded through transmedia extensions. His work examines the extensions of comics books, tie-in novels, video games and "mobisodes" — short episodes delivered on the small screen of a mobile device — and their use in the series *Lost, 24* and *Alias*. In these series and others, he writes, the time invested by the consumer is encouraged by what economists describe as "addictive goods." Clarke cites the work of Nobel laureates George Stigler and Gary Becker (1977) that argues there is a special set of goods in the market that encourage continued use rather than simply satisfy a need. These goods become "addictive" in their increasing consumption capital. The more time spent, the deeper the payoff to the consumer. It is here that cult media is created, and addicted fans become advocates for the storyworld.

In his analysis of transmedia television Jason Mittel (2014) clarifies a critical difference between simple and ubiquitous paratextuality with critical extensions of story. "Nearly every media property today offers some transmedia extensions, such as promotional websites, merchandise, or behind-the-scenes materials — these forms can be usefully categorized as 'paratexts' in relation to the core text, whether a feature film, videogame, or television series." (p. 410) He adds:

> In the high stakes industry of commercial television, the financial realities demand that the core medium of any franchise be identified and privileged, typically emphasizing the more traditional television form over newer modes of online textuality. Thus in understanding transmedia television, we can identify the originating television series as the core text, with transmedia extensions serving as paratexts. (p. 411)

These extensions, though valuable in filling in the detail in a complex storyworld, he argues, must only reward those who partake of them and not punish those who do not.

The economics of television production encourage a centralized story. Clarke, with his tentpole analogy, describes a storyworld in which a central canon series serves as the core, with transmedia extensions adding fascinating but unnecessary details. Hollywood often echoes this structure in the design of transmedia franchises in which the cinema elements deliver the critical narrative arc while the extensions serve to both flesh out the storyworld and draw fans to the box office. This structure is possible in journalism as well if, for example, a dominant media channel such as *The New York Times* extended a complex story into partner channels elsewhere with the purpose of drawing new readers back to their sticky (as will be described shortly) website or print edition, and their eyes to more profitable advertisements.

Mittel, however, breaks transmedia television into two more nuanced categories — centrifugal and centripetal structures. Discussing *Lost* as an example of centrifugal storytelling, Mittel describes the producers' use of a wide array of media channels over the course of the series' six-season run to extend the story:

> Showrunners Lindelof and Cuse have used the metaphor of an iceberg to represent the storyworld — the material appearing on the show is what is visible above the waterline, but there are underwater depths and layers that are never directly addressed on television. Like other deep mythologies, such as Tolkien's Middle Earth or the *Star Wars* universe, *Lost's* producers tapped into a wide range of styles, characters, and eras to extend the narrative universe to other media. And such transmedia extensions helped encourage viewers to engage with the show and its paratexts as forensic fans, drilling into texts to crack their hidden meanings and discover secrets, and collaborate to create extensive databases of story information like *Lostpedia,* the vast fan wiki detailing the *Lost* universe. (Mittel, 2014, pp. 422–423)

Mittel illustrates centripetal storytelling through the enormously popular cable series *Breaking Bad.* Here, rather than expanding the storyworld, transmedia extensions look ever more inward, fleshing out characters and their motivations and histories in ways that the central television series could not. The story spins ever closer to the core rather than away from it. Mittel writes:

> None of *Breaking Bad's* transmedia extensions reward viewers with trailheads into deeper narrative experiences, flesh out the fictional universe, or relay any seemingly vital story events. Instead, they allow us to spend more time with characters whom we've grown close to over the course of the television serial. While they may not seem as innovative or immersive as *Lost's* paratexts, they might even work better as extensions to the core narrative by playing to the strengths of serial television: establishing connections to characters. (p. 432)

Both strategies operate with a central core story — that of the canonical broadcast series that arguably earns the highest paying advertising support. Their transmedia extensions may spin outward or inward in orbit of a centralized core, adding value for fans and drawing new ones in from elsewhere in the mediascape.

Mittel also applies a secondary analogy to the transmedia structure of the two franchises, describing *Lost* as "What-Is" transmedia, extending understanding of what exists in the storyworld and how characters, plots and environment interact. *Breaking Bad,* he writes, exemplifies "What-If" storytelling, adding hypothetical possibility to our understanding of the story — a concept described by Jenkins (2009b) and described here later as "multiplicity."

Of the two described structures of centrifugal and centripetal storytelling, the latter is arguably more akin to journalism in that the Albuquerque of *Breaking Bad* is not a fantastical space that encourages exploration. Its pitch-black demeanor may actually repulse us. It does have

what Ryan described as a reference world in the real Albuquerque, and *Breaking Bad's*

transmedia focus on character development may provide an interesting model for transmedia

journalism. The temporally and spatially disjointed storytelling of *Lost* and its expansive

transmedia extension may prove too extreme for journalism's goal of reliable information

transfer, but if it could be accomplished without a compromise to the ethics or reliability of the

storytelling it could achieve great immersion from its publics.

The cinema and television industry's focus on a centralized core story might apply well

to legacy journalism companies hoping to build transmedia projects. For an entity such as *The*

New York Times with an established brand and economic model that requires eyes on ads in a

particular channel, this structure is most approachable. The tentpole idea — or perhaps a

Maypole with its moving streamers winding back to the center — of all extensions leading back

to the core story on a particular profitable channel may be the only possibility to explore. But as

the journalism profession fragments to small niche publications and hyperlocal journalism

produced largely by freelancers, this structure is less feasible. An alternative might be found in a

rhizomatic structure as described by Gilles Deleuze and Félix Guattari (1987).

This work is not a direct description of transmedia storytelling. It is a philosophy of

thought. Deleuze and Guattari contrast the structure of the rhizome with an an arborescent one in

which all branches of thought and knowledge adhere to a canonized trunk. This trunk is what

appears in Clarke's and Mittel's descriptions of transmedia television as revolving around a

critical core. A rhizomatic structure, however, assembles a "radicle-chaosmos" of differing parts

into one collective entity. "Any point of a rhizome can be connected to anything other, and must

be," they write, describing the heterogeneity in the acquisition of knowledge. They argue:

The ideal for a book would be to lay everything out on a plane of exteriority of this kind,

on a single page, the same sheet: lived events, historical determinations, concepts,

individuals, groups, social formations. Kleist invented a writing of this type, a broken

chain of affects and variable speeds, with accelerations and transformations, always in a

relation with the outside. Open rings. His texts, therefore, are opposed in every way to the

classical or romantic book constituted by the inferiority of a substance or subject. (p. 9)

Reading of the kind they suggest above is free of the temporality of the traditional narrative arc.

Any part can be read in any order to be assembled internally into an idea or an emergent story.

No one part is critically necessary to the reader. "A rhizome may be broken, shattered at a given

spot," they add, "but it will start up again on one of its old lines, or on new lines. You can never

get rid of ants because they form an animal rhizome that can rebound time and again after most

of it has been destroyed." Extending this idea from Deleuze and Guattari's book example, a

transmedia storyworld may not rely on a central text, but be composed of multiple, equally

valued individual parts that assemble into a multiplicity of wholes depending on what elements

are encountered. Here transmedia storytelling may most reflect the variable emergent stories of

hypertext fiction.

In the context of journalism we can see this already in how we engage with breaking

news. As a compelling or terrifying event unfolds we seek information from any source

available, whether connected or not, to assemble the most complete picture of events possible.

While an event like a destructive storm or act of large-scale crime or terrorism unfolds we seek

news from live television broadcasts, multiple news websites, local radio broadcasts, social

media and even the view from a window. When assembled, this rhizomatic picture creates what

game designer Neil Young describes as "additive comprehension" of the circumstance (Jenkins, 2006, p. 123). This is an emergent form of transmedia storytelling already found in journalism.

For a group of independent journalists or small publishers a rhizomatic structure may prove a valuable design option. As the public disperses across a diverse mediascape, assembling the attention of a critical public to an issue is extremely difficult. No new nor legacy media companies reach enough of an audience to single-handedly achieve the journalist's goal of informing the democracy. However, by crafting stories that directly address smaller publics and placing them in channels where those publics may be reached, independent journalists and legacy media alike may find not mass audiences, but effective publics. Each discrete story may seek to illustrate a particular point, address a particular issue or contextualize the subject independently of the other elements. Once engaged the readers of these discrete stories may move through the rhizomatic network assembling an ever deeper understanding of a complex issue.

A rhizomatic story network may also have some economic power for the producers. Rather than building stories as a vehicle for generating advertising dollars, as a legacy company like *National Geographic* or *The New York Times* might, independent producers of a rhizomatic storyworld could gain from licensing story elements to the multiple channels that reach target publics. Those channels themselves then have content that would draw eyes to the ads they sell, and the connection to other elements of the story network — even those in distant or competing channels — add value to the element licensed for publication.

"Principles" of Transmedia Storytelling
and their Use in Journalism

Whatever the structure designed (or allowed to emerge), a transmedia story would inevitably benefit from a principled set of qualities or goals. Henry Jenkins (2009b, 2009c) has expanded on both his original blog post and book, assembling a list of "seven principles of transmedia storytelling." These include: *Spreadability vs. Drillability, Continuity vs. Multiplicity, Immersion vs. Extractability, Worldbuilding, Seriality, Subjectivity* and *Performance.* Some context for these "principles" is in order, however. Jenkins writes of these in a blog post as if experimenting with the ideas. The balloon he floats is a very interesting one, however, his development of these ideas seems to have stopped, receiving no further treatment as of yet. His use of the word *principle* may be out of scale with the way these ideas work as well. Rather than the *rules, guides* or *truths* that principles are understood to be, these ideas might better be described as *qualities* or *goals* in the design of a transmedia storyworld. I will refer to them as *qualities.*

I am unconvinced that two of these qualities should be oppositional pairs. They are not mutually exclusive in transmedia productions and are simply a part of the array of options that may or may not be sought in the same project. Spreadability and drillability, as well as immersion and extractability, I argue, can coexist in a project. The quality of worldbuilding, though it is fundamental to transmedia storytelling and should be included here, is universal to every part of a transmedia project. Arguably, any slight story or extension in a transmedia project builds at least a tiny bit of the storyworld in the minds of those who engage with it.

I will examine all of these qualities individually:

Spreadability

Here stories move and evolve through fan interaction. Those readers actively engage in the distribution of the material through their social networks and in the process expand its economic and cultural value. "Going viral" is an Internet-age term for an idea or production that spreads like a benevolent or malevolent microbe through the mediascape. Often these phenomena happen accidentally. However, Jenkins, Sam Ford and Joshua Green (2013) add in *Spreadable Media,* virality is an overly simplistic way to look at this quality in which "top-down and bottom-up forces determine how material is shared across and among cultures in far more participatory (and messier) ways." Legacy media, they argue, too thoroughly embrace Malcolm Gladwell's (2000) idea of "stickiness" in which online audience engagement is centralized in one location — a "roach motel" where audience is measured for advertising dollars. Links to share a site or page serve up only URLs to draw audience back from social networks to the sticky site for advertising access. Spreadability, however, encourages the movement of the media itself, for personalized engagement, remix and reuse — all ideas that send shivers to the spines of intellectual property owners, but signal very deep and long-lasting engagement for compelling media. "When material is produced according to a one-size-fits-all model, it imperfectly fits the needs of any given audience. Instead, audience members have to retrofit it to better serve their interests," they write. "This continuous process of repurposing and recirculating is eroding the perceived divides between production and consumption." (Jenkins et al., 2013, p. 27).

Drillability

The story captures a fan's imagination or interest sufficiently to encourage deep investigation into the details, the periphery and contexts of the story much as *The Matrix* franchise did. "The deeper you drill down," Jenkins notes about the franchise, "the more secrets

emerge, all of which can seem at any moment to be *the key* to the film." (Emphasis in the original) (Jenkins, 2006, p. 99) For example, the number on the apartment door of the central character Neo is 101, a number that reappears throughout the films connecting events and characters. Billboards in the background of scenes contain cheat codes for the *Enter the Matrix* computer game. And license plates such as DA203 or IS5416 refer to context-appropriate Bible verses — Daniel 2:3 and Isaiah 54:16 (p. 99). The franchise is game-like in its tug on fans to explore for themselves, seeking answers to obscure questions unnoticed by the casual viewer.

In fictional storyworlds drillability must be created along with the core content. In dealing with real worlds, however, journalism has the advantage of only needing to engage the public's natural curiosity and enable its sleuthing. We may see this in on- or offsite hypertext links in published journalism pieces. A deeper form, though, would be to create deeply engaging stories that pique curiosity well enough to inspire deeper drilling, or to enable participatory investigation. There is no deeper engagement than a sense of ownership in the story itself.

Continuity

This is a familiar storytelling technique, and in the transmedia realm, though a story may unfold in separate lines and across diverse media, it still should maintain the coherence and plausibility of the story as a payoff to fans. Continuity is often the first place a franchise or storyline might lose the serious fan, and as a story builds in complexity it can be difficult to track many of the details. Lucasfilm maintains a database of the minutia of the *Star Wars* saga called the *Holocron*. In it 30,000 items and ideas are classified by canonicity, with the highest level marked as "G" for George Lucas himself. The effort to maintain story continuity is often reciprocated by the most serious fans, who, in the case of *Star Wars,* built the *Wookiepedia,* a

fan-generated online encyclopedia of the saga's elements. The Luke Skywalker entry alone runs

31,000 words. (Rose, 2011, pp. 74–75)

Continuity is not as simple an idea as it may seem at first blush. Its difficulties appear in

the National Geographic Society's (NGS) 2014 *Future of Food* series under study in this

dissertation. This ambitious transmedia storyworld, on how to feed nine billion people by 2050,

at times seems to strive for continuity with a focus on food sustainability, then drifts to restaurant

reviews in Texas and cake recipes, among other arguable continuity transgressions. Whether

conceptual structure or accident, Jenkins describes these transgressions as multiplicity, a

principle he holds in opposition to continuity.

Multiplicity

This refers to those varying story lines within the same continuous and coherent realm.

As an example one might look at the vast *Star Trek* universe in which different fictional ships,

crews and stations explore the same galaxy from different perspectives, in different time periods

and facing different issues. Multiplicity can also refer to broad breaks of continuity that may

enrich a transmedia universe, such as in the 2009 re-imagining of the *Star Trek* story. Official or

unofficial authors may create an alternate universe where the unexpected collide, such as in the

recent series of mashup books like *Pride and Prejudice and Zombies* or *Android Karenina.*

Like its oppositional pair continuity, multiplicity is valuable if well organized and

presented as an alternative to a clearly continuous storyworld. Multiplicity seems, in my

observations, to want a continuous realm to oppose, and it is here where the NGS's transmedia

storyworld is weaker. Though a critical proportion of work examining food sustainability exists

in its core media channel of the *National Geographic* magazine, cake recipes, restaurant reviews

and images of food vendors in Turkey in other channels merely break continuity, I argue, and

dilute the focus of the transmedia story. There is little net gain there from the multiple

perspectives Jenkins writes about.

Immersion

The fan enters into the world of the story, if even briefly, suspending disbelief and

forgetting their real-world circumstances. In the way a good movie seen in a darkened theater can

swallow us and make us feel present in that scene, transmedia design should aim to draw a fan in

deeply enough to forget him- or herself. James Cameron's blockbuster 3-D film *Avatar* (2009)

pushed the technical capabilities of cinema far beyond the reach of amateur producers with

motion-capture animation techniques and seamless 3-D technology a 1950s B movie producer

could only dream of. Cameron's goal, according to Rose, was to draw the viewer deeper into the

world he had created, eliminating the artificial frame created by the movie screen. Cameron

hoped to pull viewers through the proscenium, past the artificial visual plane of the screen and

into his world — the immediacy described by Bolter and Grusin (Bolter & Grusin, 2000).

Cameron partner Jon Landau explained to Frank Rose (2011, p. 54) in an interview, "3-D is

about immersing the audience in your story, and the screen plane has always been this

subconscious barrier." Once there, they hoped, the most engaged fans would find a fractal-like

complexity. "The casual viewer can enjoy [the film] without having to drill down to secondary or

tertiary levels of detail," Cameron told Rose. "But for a real fan, you go in an order of magnitude

and *boom!* There's a whole new set of patterns." (p. 49) (Emphasis in the original)

Games, while also a tool for expanding a story or looking at that story through different

eyes, are also immersive experiences. *Why So Serious?* was an alternate reality game launched in

late 2007 to promote the upcoming Batman film *The Dark Knight.* Several thousand fans had

applied earlier online to be henchmen to the Joker, and they started receiving cryptic messages to

decode and upon which to act. Clues led the most savvy players to bakeries to collect cakes held

for "Robin Banks," a name derived from the Joker's fictional bank-robbing aims. Inside the

batter of the cakes were cell phones that rang with further clues and instructions. The tasks

designed by the game's creators aimed to let the participants feel they had helped the Joker steal

a school bus used in a key plot element of the film. "The cake phones were a mechanism that

enabled thousands of people to step into the fiction long before the film's July 2008 premiere.

The 12-hour cake hunt involved only a few dozen people on the ground, but some 1.4 million

gathered online to see what would happen," described Frank Rose of the response to the game

(2011, pp. 10–13).

Also new on the scene for fictional transmedia franchises is the theme amusement park,

like the *Wizarding World of Harry Potter* theme park at Universal Studios Orlando in Florida,

where fans of the stories may make immersive, first-person explorations in the Hogwarts school

and buy personalized wands from Ollivander's Wand Shop. Before the park opened in 2010,

Tom Felton, who plays Harry's nemesis Draco Malfoy, told *The New York Times* in an interview,

"We always say on set, 'If this place was real, it would be absolutely fantastic. To actually walk

into this world and be able to touch it and taste it and smell it — well, it's just going to be

fantastic." (Barnes, 2009)

Extractability

This provides something for that fan to then take aspects of that story with him or her into

the spaces of his or her everyday life. Those aspects might be physical, the way the Eskimo Pie™

was an early example of merchandising for the film *Nanook of the North* (Jenkins, 2009c), or in

the millions of *Star Wars* action figures sold in the 38 years of the franchise. In the 1950s

Disney's *Davy Crockett* launched a frenzy among kids for coonskin caps which, at their peak,

sold 5,000 a day (Johnson, 2002). But in theory they could also be philosophical or behavioral. The creators of the films *Avatar*, *District 9* or *Selma* might hope for the byproduct of better intercultural understanding from films that show discrimination, insensitivity and the dark side of humanity, a motivation shared by journalists. As the NGS's project unfolds extractability reveals itself not only with that cake recipe, but also with clear sustainable food consumption and production practices.

Worldbuilding

This provides a rich enough tapestry on which the main story can unfold, allowing alternate stories based on different characters and circumstances. No longer, Jenkins illustrates, does a good Hollywood pitch center only on a good story, or even a character that could reappear across multiple films and books, but it must develop an entire world where multiple good characters can have multiple good stories in an endless array of possibility (Jenkins, 2006, p. 114). An early practitioner of worldbuilding was L. Frank Baum, the author of *The Wonderful Wizard of Oz* and its 13 fellow novels, comic strips, multiple short stories and stage and screen productions on that fictional world (Rogers, 2007). Jenkins describes Baum offering mock travelogue lectures where he showed slides and short films about his world (2009c). This technique of world building by the likes of Baum, J.R.R. Tolkien and C.S. Lewis has carried over into the 21st century with James Cameron's Pandora world in Avatar.

Jenkins (2009a) argued that not all stories are suited for a transmedia telling. Ryan adds:

…Not all texts project a world: a philosophical text that deals with abstract topics and general ideas does not create a world, even though it does speak about the real world. Among the texts that do represent individual objects, some are purely descriptive (for instance travel guidebooks or ethnographic reports), while others represent events that

unfold in time and create changes of state within their world. The former have a world,

the latter have a storyworld. (Ryan, 2014, pp. 58–59)

Defining the term *storyworld* is almost as difficult, Ryan notes, as defining what is a *medium*. In

tackling this effort, Ryan differentiates between the storyworlds created by fiction and the

"autonomous" and "superfluous" "reference worlds" of nonfiction (p. 60). A fictional storyworld

may have no ready referent available to the reader and might ask her to imaginatively construct

that world. As such, all fictional stories are true to the world they create, and nonfictional stories

are true to their referent world insofar as they truly honor reader expectations of an effort to

adhere to established facts. I extend Ryan noting that a reader will engage with a nonfiction

storyworld much the same way one might engage an established and already complex fictional

storyworld like *Star Wars.* Ryan notes:

The desire we may develop for other stories taking place in a given storyworld comes

mainly from the fact that once we have invested the cognitive effort necessary to its

mental construction, we would much rather go back to a familiar world than to have to

construct a new one from scratch. (Ryan, 2013)

When we enter a nonfiction storyworld our cognitive effort is certainly lower as we have our

individual lives to help understand and contextualize the story. Though this lighter cognitive load

may also lessen immersion by asking far less of the imagination, many nonfiction storyworlds do

prove riveting as a narrative work such as Stephen Ambrose's (2002) *Band of Brothers* might

show. As I address later, deeper immersion in a "real" storyworld was also the goal of New

Journalism and Literary Journalism that arose in the 1960s.

Journalism storyworlds most closely resemble the ethnographic reports Ryan discusses

above, and long-form journalism, I argue, is an ethnographic form. These journalistic

ethnographies could narratively catalog a physical space like a neighborhood, a social space like

a community, or an issue space like immigration or climate change. One could also be an

ongoing beat topic, like state government. The interrelation of stories in a storyworld helps

illustrate complexity in important issues or segments of society.

Whereas in fiction a storyworld must be built and expanded in such a way that it provides

for exploration, journalism faces the opposite problem. In dealing with real worlds, journalism

worldbuilding is not a problem of creation but one of limitation. Rather than working to expand

the borders of a storyworld in order to deepen engagement, journalists must arguably define what

is excluded lest they push away the potentially most committed publics with a realm so large it

defies mastery. I think here of the long-time *Simpsons* character of "Comic Book Guy," or

"CGB." Named as "Jeff Albertson" (Moore, 2005) in only one episode 16 years into a series that

has now been on air for a quarter century, cynical and sarcastic CBG illustrates the height of

fandom through an encyclopedic knowledge of such fictional transmedia franchises as

Radioactive Man. He is a satire of comic book and science fiction fans who raise their social

capital through mastery of every nuance of a storyworld. These fans, though an often mocked

and small percentage of a whole fan base, are arguably the most valuable to a fictional franchise

for the length and breadth of their engagement (Russell et al., 2008). They possibly spend more

money on franchise properties than anyone else and may evangelize the virtues of the storyworld

to their virtual and physical social networks (Clarke, 2012, pp. 6–8).

Though journalists might argue they are not in search of fans, let alone socially awkward

superfans like CBG, this level of mastery of a subject can promote the real-world change we

seek. As the Elaboration Likelihood Model of Persuasion (ELM) (Petty & Cacioppo, 1986)

argues, the longer the public engages with a real-world issue and the more meaningful the

information about that issue is, the more likely they are to act on the information. The ELM describes the process of yielding to a persuasive message through stages that begin with motivation and end with central attitude change. Though many journalists argue they are presenting empirical information rather than actively persuading, the information they present is more likely to be put to meaningful use if they define storyworlds that enable not only exploration, but also mastery. In reporting single stories we already delimit the area of scrutiny despite the deep complexities of our social, economic, environmental and political circumstances. In defining storyworlds we should employ that same craft of delimitation. *National Geographic's* 2014 food series so far has not, leaving it with a fuzzy, poorly delineated storyworld so large it defies mastery.

Seriality

An ever-expanding storyworld, like that of *The Simpsons,* is masterable because the story arrives regularly and in digestible bites. The story unfolds not only in multiple segments of one medium — as it did for writers like Charles Dickens or in serialized films like the *Zorro* franchise, but across multiple media. For example El Zorro's story now lives in the original 1919 serialized pulp magazine stories, 59 other novellas and novels by creator Johnston McCulley as well as a dozen other books, five serialized film series, four television series, three animated series, seven feature films starting with Douglas Fairbanks and Tyrone Power and ending more recently with Anthony Hopkins and Antonio Banderas. More films have been made in French, Japanese, Italian and Spanish. The story has spread several times to comics and anime, video games, the theatrical stage, music and now to a newer novel by award-winning Chilean author Isabel Allende. Through all these permutations the story stays largely the same, with only a few grand departures from the story of a rich, effete Californian who battles tyranny behind a mask in

early 1800s colonial California (Curtis, 1998). Traditional television soap operas are also thoroughly serial, with series lasting decades on U.S. television.

The analytical or investigative series is an old journalism form, with stories unfolding in chapters in newspapers, magazines, television and radio. This principle acknowledges the lengthened engagement provided by the serial, keeping a subject on the mind of the public longer. In transmedia storytelling serialization may come from one media channel alone, or may occur across channels.

Subjectivity

Subjectivity in Jenkins' use is defined differently than in journalism. In the latter the subjectivity of the *reporter* is considered anathema. Jenkins refers to using the subjective perceptions of *characters* within the story to add complexity and dimension. This may come about by building backstory and character through other media such as comics, as was done with *The Matrix* film franchise or the *Heroes* television series. But it can also simply use multiple personal perspectives to tell a story, as Bram Stoker used in his epistolary novel *Dracula,* constructed simply of letters between several correspondents and featuring their views on the same events. (Jenkins, 2009c) In *Dracula* Stoker makes the reader feel he or she has come across a cache of letters where those opposing views build the story from frequently contradictory viewpoints. The story changes shape as much through our understanding that we are reading a singular viewpoint on events as it does because of the events or setting themselves.

Twitter has become a platform for fictional characters to express personal viewpoints on events that transpire in their respective fictional worlds, as Jenkins points out (2009, December 12). Many of the characters on AMC's *Mad Men* have tweeted through the fingers of fans. Character Betty Draper, who as of February 18, 2015, had 35,021 followers despite long silent

stretches, hinted at events that take place on the central TV show: "Want to buy my

http://bit.ly/bluedress? @joan_holloway has asked for a donation... Strange. Still, I've never had

a good time in that dress." (Francis, 2010). Tweeting from these characters, as Frank Rose (2011,

pp. 77–78) illustrates, was an independent act by fans that was initially misunderstood by the

show's producers. The authors found the accounts closed less than two weeks after they started,

but fan uproar soon showed AMC the engagement the unauthorized tweets were producing and

efforts to stop the tweets were dropped. Rose asks, "What happens when viewers start seizing

bits of the story and telling it themselves?"

This form of subjectivity reflects the journalist's practice of using multiple sources to

verify a set of facts, as well as to build a more orbital view of a situation. Journalists routinely

bring the voices of both supporters and detractors into a story. However, in a transmedia

storyworld these voices would more likely stand apart as singular stories alongside other

reporting, offering personal viewpoints on a subject or issue. They provide an opportunity to

express the complexity of views of the same world.

Performance

Fans telling bits of the story is an act Jenkins' identifies as performance. Here the story

encourages, if not provides, action from the fans. This may take the form of cryptic clues that

appear briefly in a medium that inspire investigation or decoding by fans or open plot holes that

inspire fan fiction. Performance could be as direct as asking a viewer to vote for participants on a

program like *So You Think You Can Dance* or *American Idol.* Sharon Marie Ross (2011), a

media researcher at Chicago's Columbia College, categorizes three types of invitations made to

fans of a television franchise. The first, "overt," is clearly understood by anyone watching a

program like *American Idol,* in which the viewers are invited to vote. The second she describes

as "organic," in which the invitation to what she calls "tele-participation" is carefully designed to appear natural, assuming that the fans are already somehow participating with the show. She cites Canadian teen school drama *Degrassi: The Next Generation* for how it chooses episode topics that encourage discussion among an age group already comfortable with online and digital communication media, and the aim of the series is to influence the choices those fans make in their own lives. Without prodding, the fans develop strong social networks online and role play the characters on *MySpace.* The show itself reflects that world by delivering information in the shorthand style of SMS messaging or internet chat, a language particular to the show's target demographic. The third category Ross describes as "the messiest due to its complexity and ambiguousness." Using a style she calls "obscured," an entity like ABC's *Lost* or *The Matrix* franchise may simply leave so many questions open or holes in the story line that a dedicated and intrigued fan feels required to sleuth out the answers. Finding those answers grants an "insider status" to those who have completed the puzzle and unlocked the next level of the virtual game.

Roland Barthes (1978b) supports this argument with the point that "the author" is a persona given undue credit in the creation of a text. The reader, he argues, is an equal partner in the creation of any story. "We know now that a text is not a line of words releasing a single 'theological' meaning (the 'message' of the Author-God)," he states, "but a multi-dimensional space in which a variety of writings, none of them original, blend and clash." The 'author' is a product of the modern era as are the legacy media that build their economic models around the ideas of authorship, intellectual property and Gladwell's sticky media. In many industries this model certainly works, but the current media crisis reflects the points made by Barthes and Jenkins among many others. The contemporary mediascape wants to be participated in rather than simply consumed by its publics (Lessig, 2009; Rose, 2011; Russell, 2011; Varnelis, 2008).

Yochai Benkler (2007) points out that the advantage in an increasingly networked culture and economy goes to the network rather than to the formal structure found in professional media production companies. The speed of shedding old perspectives is perhaps inversely proportional to both the institutional history and the size of an organization. And the economics of traditional structures make adaptation more difficult.

Like producers in other media industries, the public reframing, remixing or contributing to the overall storyline surrenders too much control for journalists. After often laborious reporting, double sourcing and fact checking, we feel justifiable concern over the idea of letting the ostensibly untrained tell parts of the story themselves. That the public wants in on the creation of story is not lost on media producers in any industry though. More and more space is provided for what appears to be public contribution. In journalism this may look like *American Public Media's* Public Insight Network, a program for which members of the public may volunteer as potential sources. There is a great difference, however, between the role of source and the role of author. The latter is a more meaningful contribution to a storyworld in all media from entertainment to journalism. A better example appeared alongside an August, 2012 National Geographic story on the Pine Ridge Lakota reservation (Currie Sivek, 2012; Fuller & Huey, 2012). Photojournalist Aaron Huey wrote:

> It all started when an envelope full of letters arrived in my mailbox. They came from high school students at the Red Cloud Indian School after they had seen a photo story of mine on Pine Ridge in 2009. Their letters challenged me to see a different side of the Reservation. As a photojournalist who has been working on the Pine Ridge Indian Reservation for the past 7 years, I've always struggled with how to share the incredibly complex story of this community. I've never been able to tell all the stories that I want to

tell on Pine Ridge, and I've come to realize that even if I could, I can't tell them the way

the people want them told. To solve this dilemma, I joined forces with web pioneer

Jonathan Harris, the creator of cowbird.com — a visionary, embeddable, storytelling

platform. Together we built this community storytelling project so that the people of Pine

Ridge could author their own story. This new relationship between the story subject and

the publication opens up a new kind of transparency and dialog rarely seen in mainstream

journalism today. (Huey, 2012)

Huey's collaboration with the *Cowbird* storytelling website,

http://cowbird.com/collection/pineridge/, opened *National Geographic's* storytelling to the

subjects themselves. *National Geographic* published direct links to the stories on their own

website, but these meaningful contributions were not canonized as part of the story by running

alongside the work of the non-Indian reporters on the magazine's main printed or Web pages.

Journalism, like other media, still shows caution over how far to let this kind of work enter the

official story.

Variations

Though they certainly reflect the valuable qualities of a transmedia story, Jenkins'

"principles" demonstrate their origins in the Hollywood understanding of the practice. As

discussed above, transmedia journalism may require a different set of valuable qualities, as might

advertising, the music business, the toy industry, education and others currently or potentially

embracing transmedia storytelling as a response to a dispersed mediascape.

This chapter outlined the origins and logic of transmedia storytelling, it's significance in

current media production for industries other than journalism, and a set of qualities, or

"principles," Henry Jenkins sees in its use. In the next chapter I will examine the NGS's *Future*

of Food project as a substantial example of transmedia storytelling in journalism, and as a

platform to discuss Jenkins' principles in a journalism context. I will also examine the structure

of the network of stories the society builds, how those stories interact and discuss the successes

and limitations of the project through the research presented in the prior chapters.

CHAPTER 5: NATIONAL GEOGRAPHIC'S *FUTURE of FOOD* AND "CROSS-PLATFORM" STORYTELLING

"It can't just be thought of as the pages of National Geographic Magazine. *If that's all you're thinking about, I suggest you turn around and go to work for* Reader's Digest, *because they'll show you where you are when you're just thinking about pages in a magazine."* — *Chris Johns*

Chris Johns, the chief content officer of the National Geographic Society (NGS) and editor in chief of *National Geographic*, made the above statement to members of his editorial staff during a tense story proposal meeting (personal communication, Jan. 22, 2014) as the Society worked through an organizational restructuring. It moved its editorial staff from compartmentalized offices to a new collaboration-encouraging open floor plan, welcomed a new chief executive officer and faced persistent struggles to maintain its prominence in a competitive industry that had already seen the loss of venerable publication titles. In the middle of all this, the NGS was actively rethinking how it tells stories.

This mixed-methods study will examine the NGS's 2014 *Future of Food* project as an example of how storytelling is changing there, and as an example of transmedia storytelling in journalism. The data are comprised of personal background interviews with NGS editors and producers and the qualitative and quantitative coding of 823 stories and 472 social media posts. I use social network analysis tools and techniques (Hansen, Shneiderman, & Smith, 2011; Kadushin, 2012) to model the structure of the project as complex, multimodal actor network formed among stories, producers and readers. This distant reading (Moretti, 2013) of the project enables a first-of-its-kind detailed analysis of a journalistic or documentary transmedia story.

Though much of the structure and philosophy of the project could be translated to other

organizations and subjects, the NGS is a unique entity in journalism. Its in-house array of

subject-related media channels lowers some hurdles between concept and publication of a

transmedia story, while at the same time the historic independence of its divisions and time-

tested workflows raise others. Nonetheless, I hypothesize, this industry giant is rapidly

adopting home-grown transmedia techniques as a method to increase engagement in a

complex mediascape.

The World and All That Is In It

The 127-year-old NGS has scholarly roots. Founded in February 1888 "For the increase

and diffusion of geographic knowledge," (Garrett, 1988b) its first meeting featured the

presentation of a scholarly paper by Grand Canyon explorer and Society founding member Maj.

John Wesley Powell as well as member reports on the geographies of sea, air, life and land

(Garrett, 1988a). Nine months later, in October 1888, the first issue of the now iconic magazine

was published as a scholarly journal. Described by Johns as "a drab scientific publication of 98

pages wrapped in a plain brown cover" (2013) until in 1904 when then-editor Gilbert H.

Grosvenor was faced with 11 empty pages. Grosvenor took 11 photographs of Lhasa, Tibet,

received from the Russian Geographical Society to the printer, assuming he would be fired for

the breach of scholarly sobriety. The opposite happened, however. The images proved

enormously popular. "Gradually pictures, which had been inserted into a magazine for serious

readers as a means of attracting subscribers from the hoi polloi, took possession of its pages,"

wrote former text editor Charles McCarry (1997, p. 2). "Circulation soared."

In February 1910 the distinctive and now trademarked yellow border first appeared on the

magazine, enabling most of the world's literate population to spot stacks of the magazines in

amateur archives in attics, basements and garage sales in 37 different languages. Those stacks, boxes or sagging shelves reveal the magazine's shelf life. I was once told by an editor to whom I'd proposed a story in the 1990s on the culture of coffee that the magazine had recently covered the subject. My advance research had given me false security. The too-recent story on coffee as a global commodity was from 15 years earlier. I had wrongly considered that gap in time and the different focus of story more than adequate. He noted that the readers of *National Geographic* have very long memories.

For many readers those memories include a prepubescent discovery of pictures of bare-breasted women from exotic locations, photographed and reported through the early 20th century in the orientalist style that lingered from the age of empires. In a 125th-anniversary acknowledgement of this unique cultural influence, the editors of the magazine counted 539 photographs of bare-breasted women, the first in 1896 and then the last in the same October 2013 issue. Twenty such images appeared in the September 1912 issue alone, mere months after the sinking of the Titanic (Zackowitz, 2013). The 1985 discovery of the wreck of that ill-fated ship by Society explorer Robert Ballard would prove to be among the most riveting subjects of NGS media. The societies subject matter is pulled from any interesting part of the globe and nearly every scientific discipline.

The Society's transition from academic association to media company was arguably completed in 1920 when long-time editor Gilbert H. Grosvenor was named the Society's president as well as the magazine's editor. Magazine content — particularly the photographic — became the core of the Society's work. As media scholar Stephanie L. Hawkins describes:

> *National Geographic's* expansive definition of geography as "the world and all that is in it" not only offended the nation's official geographers and spurred the formation of the

more reputable and scholarly American Geographical Society, it also placed the

magazine in the more quaint category of natural history and made it a cousin to the

museum by including human beings among its visual repertoire of the world's flora and

fauna. (2010, p. 10)

According to the American Geographical Society's own website it was founded 37 years before

the NGS (American Geographical Society, n.d.). However, Hawkins' comparison to NGS media

as a museum delivered to the home has long been true.

From the original *National Geographic Magazine,* Society media has expanded to six

more magazines starting with *National Geographic World* (now *National Geographic Kids*) in

1975 to *Traveler, Little Kids, Explorer, Adventure,* and in 2015 a new bimonthly printed

magazine *National Geographic History.* In 1964 the Society began a series of television specials

on commercial and public television memorable for their familiar introductory brass fanfare. In

2001 the Society partnered with Fox Television to create the *National Geographic Channel*

which has spawned offshoots *Nat Geo WILD* and *Nat Geo Adventure.* Others, such as *Nat Geo*

Music, are carried on cable services in international markets. These partner channels

contractually broadcast a portion of content created by the Society's television production

division, the direct descendant of the group that created the TV specials launched in the 1960s.

The NGS operates a successful and profitable film division that creates content for theatrical

release. *March of the Penguins* with Morgan Freeman, and *K-19: The Widowmaker* with

Harrison Ford and Liam Neeson. The Society operates a book division, an education division to

encourage scientific and geographic education, organizes international tours and travel, and

maintains a museum at their Washington, D.C. headquarters. In addition to these consumer-

oriented media, the NGS continues to fund exploration and science through its expeditions

division (Personal communication, Jan. 22-24, 2014). Because of this unique array of media

properties, all connected by the "world and all that is in it" geographic philosophy and subject

matter, I have watched for transmedia storytelling to unfold in its publications.

Author Relationship to the National Geographic Society

Like millions of other American households, mine subscribes to *National Geographic* as

well as *National Geographic Traveler* and *National Geographic Kids* magazines, watches

occasional television productions or attends an IMAX film produced by the Society. As a

subscriber I am considered a "member" of the Society, though that designation is simply a faded

legacy of the Society's scholarly origins and denotes no practical relationship beyond those

subscriptions. As a freelance journalist in the 1990s I photographed two small stories for

National Geographic, three for the *National Geographic News Service* and one for the *National*

Geographic Image Archives. In 1994 the *National Geographic News Service* assisted me in

securing a journalist visa to cover Brazil for them and other freelance clients. In the late 1990s I

proposed two magazine story ideas, both of which were declined on grounds of the Society's

lack of familiarity with me and my work. My stock images, licensed by my agents, appear in

Society books and publications irregularly. My most recent assigned work for the Society was a

portrait of explorer and self-amputee Aaron Ralston for the now-defunct *National Geographic*

Adventure magazine in 2010. This last assignment was made through my agent at *Getty Images*

and not directly assigned to me by the magazine.

From the outside this work for the organization I analyze in this study may seem

significant. However, those seven direct assignments, handful of indirect stock images licenses

and a reference letter are a tiny fraction of my freelance work between 1995 and 2010. For

comparison, in the same time period I photographed more than 900 directly assigned stories for

the *New York Times.* My professional relationship with the NGS has been distant and financially immaterial. Since 2010 my interest in the Society has been purely academic.

Changing the Story

In January 2014 I visited NGS headquarters to investigate clues that transmedia storytelling was likely to emerge there (National Geographic Society, 2013). In October 2013 I made initial contact with Chris Johns, chief content officer of the Society and editor of *National Geographic* magazine, with the help of former director of photography Rich Clarkson at his Photography at the Summit workshop in Jackson Hole, Wyo. Johns introduced me by e-mail to managing editor David Brindley. Brindley arranged the visit and appropriate interview subjects and meetings. I interviewed ten editors and producers and attended three staff meetings over three days in Washington, D.C. I made notes during all meetings and interviews and recorded them for accuracy. Interview questions, information and releases were approved and granted exempt status by the University of Colorado Boulder Institutional Review Board. The content below was selected as relevant to describe changes in organization and in the storytelling philosophy at the Society.

In interview, Chris Johns introduced me to the *Future of Food* project in its planning stages and provided access to planning staff. I requested followup interviews to clarify questions and concepts and to inquire about the success of the food project. Despite extensive and open access while in Washington, no one I contacted replied to those telephone and e-mail requests. Though the reasons are unknown, pressing work responsibilities, the tensions of reorganization and job security in a tough media economy and fear of disclosing proprietary information may be

causes. Unless otherwise cited, all quotes in this section are personal communication from January 21-23, 2014.

"Cross-Platform" Storytelling

"Right now it's, I'd say, an advanced form of show and tell," Terry Garcia, executive vice president for mission programs at the NGS, told attendees of a Cross-Platform meeting as he called the group to order in January 2014. "Perhaps we can do even more with it and turn this into more of a discussion and decision-making body rather than just reporting on what we're all doing." The group, composed of the top editors and managers from the Society's magazine, digital, books, film, television, channel, museum, expeditions and marketing units, was organized to encourage the Society's silos to interact and collaborate on storytelling across National Geographic properties. So far, Garcia argued, the group was simply sharing information about what the units were up to. The sought-after collaboration was not yet as strong as it could be.

Among the top-level managers at the NGS, the "cross-platform" storytelling emerging there compares favorably to the transmedia storytelling used in other media industries, and clearly reflects many points made in this dissertation. "As we build those stories, how those stories manifest themselves across platforms in the short, medium and long term across those platforms — that's all the stuff we've got to figure out," chief content officer Chris Johns told me a day earlier. As it is for many producers the ideas of media and platform are softly defined and fuzzy at their borders. The idea of platform as used at Society headquarters in early 2014 reflected ideas of media form at one moment and media channel the next. However, the complement of managers included in the cross-platform group — all managers of the Society's many media channels — demonstrates progress toward a storytelling logic in use in other media industries.

When asked for the word or phrase that described the new direction of storytelling at the Society, the next lower rank of editors had trouble naming the phenomenon. When they did it tended to reflect their own work. "I guess we're calling that multimedia," said director of multimedia Mike Schmidt. "It's, um, it's not the best term. Yeah, we should retire it. I think it's used incorrectly a lot," he said. But the inevitability of these changes was also evident. "We don't need to declare it as a thing that we're doing. It's just a natural part of a story building process I think," he added. *Future of Food* project manager Kaitlin Yarnall, arguably the one person at the time most steeped in this expansive storytelling style and how it was to be implemented in the *Future of Food* project, noted the novelty of all of it. "We didn't think this way or talk this way six, eight months ago," she said.

Emergence of Transmedia Storytelling

The NGS is no exception to the exceptionalism that infuses journalism. Though journalism is a parallel media discipline to advertising and entertainment, journalists consider their work distinct from their media family counterparts. Journalists should rigorously report facts and studiously avoid deception, misrepresentation or purposeless aggravation of subjects. For committed journalists it is — as it is for academics — work of a higher order. This careful preservation of professional rigor frequently blinds journalists to how similar their economic models, story structure and position in the mediascape are to fellow media producers. This exceptionalism, I argue, has slowed journalists' observation of how other media industries have responded to changes in the mediascape over the prior two decades. Rather than borrowing from counterparts and adapting them to the unique demands of journalism, journalists are only now reinventing the transmedia storytelling wheel. Its appearance in journalism at the NGS, *The*

Marshall Project[1] and likely other news organizations demonstrates the pressure to fit their work

to the contemporary mediascape rather than a conscious adaptation. An apt metaphor may be

found in how U.S. citizens and policy makers rarely look abroad for answers to domestic

problems (Lipset, 1997).

"I think we want to be where the conversations are happening," noted Pamela Chen, a

photo editor for *National Geographic* and its digital editions, about why the Society was pushing

toward transmedia, or 'cross-platform' storytelling. "I'm wary to say that it's a new thing or a

new tool or anything. I think we just found a way to tap into the conversations already going on."

This acknowledgement of the more conversational nature of media consumption and the need to

go to the public in terms of both the affordances of media form and the reach of media channel

was echoed later by Chris Johns.

In the November 2014 issue of *National Geographic* an article on brain-controlling

parasites used comic book illustration forms to fit its description of the parasite victims as

"Zombies" (Zimmer, 2014). When asked months earlier about plans to use this media form,

Johns replied, "We go to where the audience is. We don't sell our soul, but that's a really

interesting approach to storytelling. Why wouldn't we play in that because it can tell a story in a

new and innovative way, and we've been about that for a long time." During my interviews at

the NGS in early 2014, multiple interviewees made reference to being 'where the conversation

is,' hinting at an ongoing internal discussion about the organization's long-term relevance.

"There's a constant churn," observed director of multimedia Mike Schmidt. "You have to be in

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[1] *The Marshall Project*, launched in 2014 by Neil Barsky and former *New York Times* executive editor Bill Keller and named for Thurgood Marshall, is a single-topic news agency that produces reporting on criminal justice issues for multiple partner news organizations. Its model is also an emergent example of transmedia storytelling in journalism.

the middle of where the conversation is happening online. We want to know where the puck is. We don't want to be skating to the puck."

Target Audiences

As it is for many legacy media companies, being "where the puck is" presents a difficult task. Where most publishers control one particular channel or a chain of similar ones, the NGS has the fortune of a horizontally integrated set of differing places to put the content it creates, from its magazines and TV channels, to its museum and books. Still, these select channels reach very specific publics and little of the *Future of Food* project content was placed outside of the yellow-bordered corral of Society media. "It's not a conscious top-of-mind thing we go around here talking about," *Future of Food* project manager Kaitlin Yarnall responded when asked about target demographics and how they would be reached. "We talk about it more when we are planning events. I know (the) Books (Division) plans it — what's the market for this book?" Later she added, "I'd say the platform drives the content more than the intended demographic when we talk basically about the core material we're producing."

Despite the lack of flexibility created by a journalism organization's ownership of both content creation and and at least one publication channel — a vertical integration now far less common in other media industries — an awareness of the long-held illusion of the mass audience was present. "I come from a foundation world and one thing I learned there is that there is no such thing as a general public to target, and that was a powerful lesson to learn because nobody would define themselves as being a member of the general public," noted Chen, who worked previously for the Open Society Foundations. "We all have our interests and our clubs and our niches. We all think we're special. And so, I think when we say an engaged audience we mean

those who are with us, or that there's a feedback loop. We have a shared interest, a mutual interest, and I think those are target groups."

Within the *Future of Food* project, few stories found a home beyond NGS media. The Society used three external social media spaces to publish unique stories, get behind the scenes in stories or to repurpose media that was also published under the Society flag. The magazine's *Instagram* account proved a deep storytelling space for the photographers assigned to the food project. There they published interesting outtakes and behind-the-scenes images ahead of their story's publication. Not only did this promote the pending stories, but it extended them beyond what would appear in the magazine. The Chautauqua Institution featured *Future of Food* editors, authors and photographers through a summer lecture series to discuss the issues of food sustainability, distribution and affordability that brought a singular experience to the attending audience and later to online video. *YouTube* was used as a second powerful channel for video segments from magazine stories, blog posts and television series segments. Other social media spaces were used for the *Future of Food* project as they are commonly used by other news media: as simple promotional link feeders placed to pull traffic back to the Society's websites.

Chen said of *Instagram:* "We hope to do it in a way that when the story comes out it's not competitive, but it's complementary to the final product, so you'll have this sense of journey that you participated in." She added of the personal connection that social media can provide: "You feel like you're participating — like this is someone you know."

Social media giant *YouTube* also plays an important part in Society storytelling. Multimedia director Mike Schmidt said, "We need to go where the audience is, and *YouTube* is where the audience is. The traffic that we get on our site is great, but it is a small fraction of the traffic that we get from the exact same video asset on *YouTube*." He added, "There's just a much

bigger audience gathered there… We also distribute stuff out to a few other networks. *Hulu* gets

some things, and *MSN*… They don't get quite the traffic that *YouTube* does. Nobody does. We

put stuff there because we want it to be seen. That's really the goal here."

As certain as Schmidt was of the value of *YouTube,* he was certain about the limits of

social media powerhouse *Facebook* on data-gathering and economics. *"*I don't like to put content

on *Facebook,*" He said. "I will put promotional content on *Facebook.* We can't monetize that, we

can't get the metrics off of it, so, I'd rather just put it on *YouTub*e where we can do those

things… They're a terrible partner." Though the NGS also has a sizable presence on *Twitter,* it

also uses that channel mostly to promote internal content rather than as a storytelling channel in

its own right, or as a hub of conversation with the Society's public.

When asked whether there would be an advantage from avoiding content repetition

between channels to make each experience additive, Schmidt replied, "No one is going to see all

of your content. And if they do, that's not so bad because the overlap is small. The people that

read our magazine are not the same people that look at our *YouTube* channel. They're just not.

And the people that are coming to our website might be looking at our *YouTube* channel but they

might also just be in school and they're doing an assignment for a teacher and they're looking at

our site specifically. So I think that it's important to remember that just because you're

publishing it doesn't mean people are seeing it." Though editors like Schmidt acknowledge the

need to reach out to their publics using their many media channels, there was no apparent interest

in interconnecting stories across channels for the exploration of engaged readers. Though

Hollywood and Madison Avenue design transmedia stories to lengthen and broaden the

engagement of fans, journalists still demonstrate a broadcast philosophy. Asked whether that was

based on metrics or assumption, he replied, "It's assumption for me. I don't do a lot off of

metrics. I go off my gut. I come from a guy-who-makes-stuff point of view."

Cross-Pollination

While reaching audience is a universal goal among media industries, better collaboration

among the Society's many divisions and their particular media channels is a goal to which few

media companies can aspire. The NGS is unique in the industry for its large and varied array of

publications, programs and channels that can be used in storytelling. Schmidt noted in interview

that Johns had charged him and others there to break down silos. "We were debating that at

length eight years ago at Northwestern," Johns said of his time studying in the Media Strategy

and Leadership Program there. "More and more people were saying 'what you need is cross-

pollination. What you need is a situation where you integrate your teams.' And I believed that

long before I went to school at Northwestern." The focus of those conversations Johns references

from 2006 was likely the *convergence* discussed in Chapter 2, in which print, Web, television

and radio converge into one digital news disseminating entity. Johns is consciously or

unconsciously up to something else: the coordinated use of the Society's channels to tell an

expansive story, with each publication adding to the work of the others, or transmedia

storytelling. "You can spin off those stories in really smart ways," he added. "And not only that,

tell the story over time and with a long tail…"

The 127-year-old *National Geographic* magazine is still the core property of the Society

and its premium product, the stories requiring extensive time and investment to produce. As a

result, the reporting of the magazine's complex stories by writers, photographers, videographers,

designers and cartographers can provide for more stories that extend the core work of the

magazine. "What *National Geographic* magazine is, is a carefully curated experience," Johns

described. "What you can do is as that story is in the field being reported, coming together, etc., you can start to share pieces of that, have a really strong social component. We're social people."

"The magazine is such a premium product. I think it's a status symbol," Pamela Chen said in a separate interview. "People love it. And it represents so much work. But from my perspective from working with photographers in the field, it's just one of a few things that's going to come out of it." She added, "Centerpiece is a funny word. It depends on who you ask right now what the centerpiece is. Right now our teams are divided by product, but we're also moving toward an emphasis on craft — dividing by craft. I think that's a big move."

The Future of Food

As Chris Johns described the expanding storytelling at the Society he revealed the *Future of Food* project in its planning stages. "As you're conceiving of the stories that are relevant," he said, "of the stories that you think would be really helpful for people to understand — food, agriculture — help them understand how we're going to feed nine billion people in a few years… To take them on sort of this field trip, this journey of discovery that helps you understand the ins and outs of food and agriculture." Johns added, "That's the first big project across National Geographic where we're really trying to get it right."

"Kaitlin has a new role that we haven't had in the past, and that's project manager," he said, referring to cartographer and designer Kaitlin Yarnall who had been given a central role in the massive eight-month project. Yarnall was placed at the center of the story long after a series on food and agriculture had been conceived, and tasked with coordinating its many moving parts. The project was massive, producing 823 stories on 41 channels that were found and coded for this research, some of which — a museum exhibition, forums, lectures, a hackathon and even an

ice cream truck — are rarely seen as journalism. "It's unique. It's the first time we've done a series this way," Yarnall said of the project.

In January 2014 the launch of the project was still three months off, but already the Society was planning the next. In 2016 the NGS will produce a second-generation transmedia project on national parks. "For food, the editorial through line, they were not thinking about how it fits in with all these other things we're talking about," Yarnall noted. "They were just thinking about, 'what's the best magazine series we can come up with.' Now as *Parks* is being planned — it's on the ground floor… they're thinking right now about everything that's around it and what that means and who we need to clue in now. I think that's one specific thing, that we're thinking about it from day one and making sure that it is the Society statement for the year (2016)."

Obstacles

In January 2014, before the launch of the *Future of Food* project, adjustments to a new organizational structure, new practices and a changing storytelling logic at the NGS was evident. During a pitch meeting in which print magazine editors propose future stories to executive editor Chris Johns and each other, Johns strongly reminded staff to think beyond the magazine. "This is what I want to emphasize," he said. "As we do this story, as we commit these resources, it is not something I'd like you to do, it's something you *have* to do, and here's what it is: You've got to figure out how to have this story live across multiple platforms over a long period of time. It can't just be thought of as the pages of *National Geographic Magazine.* If that's all you're thinking about, I suggest you turn around and go to work for *Reader's Digest,* because they'll show you where you are when you're just thinking about pages in a magazine."

As he finished, one highly-positioned editor, who asked not to be named, pushed back, noting the absence of Web and social media team representation at the meeting. "That's a

problem," Johns replied. "They needed to be in the very beginning of this, from square one.

From the point where we said, 'Wow, this is an important story for us to do.' Immediately. And

it's not just Web, it's social (media) too. What are the plays across platforms? And that has to get

fixed, and it has to get fixed *now.*"

Project manager Kaitlin Yarnall pointed out that a permanent person in her position

would be required for the 2016 *National Parks* project. "My recommendation to Chris is that

they get someone who's playing the role I'm playing. That Chris hires someone who is in the

magazine — an editorial person — who plays my role but that's a full-time job," she said.

As the NGS wrestles with reorganizing staff and storytelling to better fit the 21st-century

mediascape, Johns made clear in an interview later that day what elements of their work are

sacrosanct and should not be sacrificed in support of complex projects. "The lens through which

look at things is the highest journalistic standards," he said. "That keeps you out of trouble. That

keeps you authoritative. That keeps you trusted, because if you're not trusted in all of this, then

you're just all part of the noise out there." Though the journalistic quality of the project was very

high in my view — as a second-generation journalist with extensive experience at the top of the

profession — I counted three industry advertisements, or native advertising, embedded in *The

Plate* blogs as content with very small indication that they were paid content. These profit-

gathering advertising placements are extremely controversial in journalism professional ethics.

Eat the Whole Cow

The cost of producing one *National Geographic* story is enormous as highly sought and

well-paid photographers and writers may be in the field for weeks or months. Travel, editorial

staff costs, illustrations, maps and video production sewn into what is often a two-year

production cycle add up to a sizable investment.[2] The cost can be as much as a modest house or

several years of Ivy League tuition. "So in terms of a philosophy — we've been kicking this

around — is the 'eat the whole cow' philosophy," Yarnall noted, smiling at the food project

irony. "If we send a photographer out for six, eight, ten weeks, and we run fifteen photos in the

magazine, then let's make sure that reporting, that experience is spread out. That we have good

return on our investment." She added, "It's the right thing to do for content, but from a financial

perspective, we should."

In my interview, Johns outlined the four-legged financial stool of the NGS in explanation

of how these expensive stories are funded:

Financials weigh on all of us and with financials there's no silver bullet. If you think

you're just going to survive on a paid content model, you're probably naïve. If you think

you're going to survive largely on a model of advertising, you're naïve. So what you

need is a lot of silver bullets. You need to have world class, relevant, great content — and

some of it probably curated too. And hopefully what you want to do is move to a paid

model as much as you can. But in doing that you do not want to desert a high-margin

business like advertising. That's another silver bullet — you've got to figure out that

balance. Philanthropy. From Kickstarter to people who come to us — and this has

happened to any number of us here — who say, 'I believe in your photography… I

believe in what you do… I want to support a single-topic issue on water…I want to

support the work you're doing on cheetahs…' So philanthropy is another silver bullet. E-

commerce: You know with us, e-commerce is another huge play too. We've got our

store. We also have fantastic National Geographic trips that are a great experiential

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[2] A specific number was provided on background, but not for publication.

extension of who we are, what we do, what we stand for — really really high-quality trips all over the world with scientists. That's another part of an e-commerce play. Those are really the four legs on the revenue stool: paid content, advertising, philanthropy and e-commerce.

It was too early to tell what income the *Future of Food* project might generate and followup questions of the results received no response, however Yarnall discussed what factors might lead to the *Future of Food* project continuing beyond its eight-month plan. "I'm hoping it will depend on what the response is. If we develop a huge, engaged, plugin audience around our bloggers or whatever, I would love to think that we're in a new world order where we could say, OK, our print series has ended, but we're going to continue to fund our food bloggers or continue to fund this food hub to keep that conversation going because we've developed a loyal following." In late April 2015, one year after the launch of the project and more than four months after its scheduled end, the Web hub of the *Future of Food* project is still actively aggregating food-related content from the *National Geographic Daily News* site and its team on contract bloggers continue to produce new posts daily. By one measure — that journalists are still being paid to produce new content — the *Future of Food* project was journalistically and financially successful.

The four-legged economic stool Johns describes likely allows for more flexibility and a potential for larger scale production of transmedia stories than might be possible elsewhere in the journalism industry. *National Geographic* has long been known for the time in the field it allows photographers and reporters. A single magazine story is the result of weeks, if not months, of field work in pursuit of the most deep and thorough coverage. Johns described his philosophy:

What I'm always looking for — this gets to my whole point — is a great story. That's

been my general operating principle on this from the beginning has been my experience

as a field person. I want desperately to share the story with as wide an audience as I can

in the most immersive way that I can. (A story) that is factual, that is authoritative to

some degree, and that is emotional — stories of people and places that move you. And

that's a space we have to operate in: people and places that move you. Not lectures, field

trips. Come with us on journeys. That's the strength of this.

In April 2014 I launched a mixed-methods study of the *Future of Food* project, cataloguing and

coding its stories and social media posts to evaluate the structure of the first-of-its kind project at

the NGS.

Conceptualization

Applied Theories

There are two relevant theoretical structures that apply to this study. The first, Actor-

Network Theory (ANT) (Latour, 2007; Law & Hassard, 1999; Lindlof & Taylor, 2011; Turner,

2009; USCAnnenberg, 2010; Whittle & Spicer, 2008) is a material-semiotic framework for

examining the interactions among actors, both human and non-human, that form a network or

system. ANT seeks to explain widely how networks assemble to act as a unit, and how that unit

becomes another discrete actor in a wider network. In the case of the *Future of Food* project, for

example, multiple networks within the Society's structure coalesce to form the project's own

story network. ANT is a valuable lens on this story network for its explicit understanding that

inanimate objects can be a part of a network and influence its nature and outcome as significantly

as human actors. This extensible theory applies to the *Future of Food* project in multiple ways,

however, the focus here will be on the network of information formed by multiple stories, events and activities within the *Future of Food* project.

ANT networks exist in a constant state of redefinition. The actors engaged in them must perpetually reenact the relations that brought them together or the network dissolves. Social relations, therefore, are in constant process and never a fixed state (Latour, 2007). That process of coalescing is described by ANT theorist Michel Callon (1986) as "translation," in which innovators or activists agree, tacitly or overtly, that such a network should be created and defended. Once that network forms — Callon uses the term "punctualized" — it becomes a "token," a new object or node in a larger network. This token is then an actor/actant in a larger system, influencing and being influenced by that system.

For example, I am a node on the network of the Ph.D. program in which I study. That program is itself a node on the network of the larger college, which is itself a network within the university, which is itself is a node in the network of American universities. One could carry the nested networks on extensively. At the same time there are other networks overlaid, such as that of humanities scholars from across university organizational units, or networks of foreign-born students, professors who watch *Hawaii Five-O* or any other of an infinite number of perspectives one might use to see networks that exist here. Some are quite temporary, like the network of scholars on the committee for this dissertation, which is a node in the yet more temporal network of all those who will attend the defense of this dissertation. All of those individuals influence and are influenced by the networks they form.

Likewise, networks form among inanimate objects. This paragraph is part of the network formed by other paragraphs to create this section, which is a node in this chapter, which is a node in the whole work itself. Each of those parts play an influential role on each of those networks.

When complete, this dissertation will be easily perceivable as an object in its own right. It is intended to influence the network of scholarly study through a variety of larger networks, from those of topic and on to field and discipline. Its message or quality will inevitably influence the network of defense attendees, and will hopefully influence the worldwide network of journalists.

Multiple NGS divisions engaged in the project, and each brought their own network of actors into play. These include human actors — journalists, editors and producers — as well as the stories each division produces under the project's umbrella. The *National Geographic* magazine, for example, produced a series of monthly stories and data visualizations as part of the *Future of Food* project that themselves "punctualized" into a discrete network of their own. This token becomes part of the larger network of *Future of Food* stories from other divisions, blogs and social media. The series as a whole becomes a token within the larger network of NGS work, which is then a token in the yet larger network of American journalism.

ANT also differentiates between intermediaries in the network, i.e., elements that pass information through without transformation or deformation, and mediators, which act on that information. Mediators are the actors in the network that exert the most agency on the form or process of the network. But ANT purposefully avoids a further theory of the actor, allowing it the widest possible applicability, from the studies of economic markets to activism in fisheries protection (Callon, 1986, 1999). However, my study calls for a deeper look into the way the actors present in this network mold or interpret the information passed in their relations.

Where ANT is a valuable material-semiotic approach to examining how the varying media channels are used by the NGS in the food series, those individual stories will be told using a variety of media forms, or "modes" — music, speech, writing, image, color, gesture and others — which bring particular affordances to the telling of those stories. That brings me to the second

theoretical perspective: Multimodality (Kress, 2010; Kress & van Leeuwen, 2001) is a social-semiotic approach to the expanding array of contemporary communication modes and the influence they have on the interpretation of a message. Gunther Kress describes a mode as the collective use of "technologies of representation," or *media form,* and "technologies of dissemination," or *media channel.* All communication, Kress observes, is a designed rhetorical act. The designer "understands the audience and its characteristics; and understands what the matter to be communicated demands. This is the basis for designs to shape these representations ready for their production and dissemination." (p. 26) By designing a message — either consciously or intuitively — we direct content to specific social and cultural circumstances, learning styles and to the meaning we wish to convey.

The designer of the message not only shapes the content but employs a media form (technology of representation) for the affordances that form brings to understanding. For example, text often engages our critical thinking abilities where image best engages our emotional understanding of the content. The designer then chooses a media channel (technology of dissemination) that not simply delivers the message but continues to shape it through another layer of affordances. Marshall McLuhan would argue here that a message in the "hot" medium of print requires that we use more mental tools to reconstruct a story where the "cool" medium of television feeds all the aural, visual and (sometimes) intellectual information to us (McLuhan, 2011b, pp. 37–50). In addition, the cultural genres of newspapers and television carry social meaning, tradition and methods of operation that also influence how we receive the message.

Unlike prior theoretical constructions of the act of communication, Kress' multimodality theory acknowledges the equal agency of the recipient of the message. The reader also designs meaning, particularly in the networked information age. With so much information from so many

sources instantly available in the current mediascape we can easily design our own interests. We choose from an enormous array of messages and take no message in isolation or as the final word on the subject. That we have always assembled knowledge from multiple pieces according to personal interests and experiences is more evident than before. To fuse Kress and McLuhan, the mode is the message.

In order to use ANT to acknowledge the agency of a non-human entity in a network I must first describe from where that agency comes. Multimodality will provide a useful lens to understand and describe how the books, stories, blogs posts, images, lectures, displays, television shows and food experiences in the *Future of Food* project become more than just passive nodes through which the public moves. They are influencers in the shape and outcome of the network.

Though my research has not uncovered a prior pairing of ANT and multimodal design theory, Liza Potts (2009) used ANT to dissect a multimodal communication network that sprang from the disaster of the London subway bombings of 2005. Her aim was to develop a method for more clearly and effectively communicating across media in the event of a disaster. While acknowledging that the Internet-centered disaster communication is indeed multimodal, she does not bring into consideration how modes and their affordances affect that communication. She defines a photograph on flickr as an intermediary actor despite many studies of a photograph as a mediator of information (Berger, 1972; Coleman, 1995; Ritchin, 2009; Sontag, 1978).

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Research Questions

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This dissertation broadly seeks to answer the question of how the NGS's *Future of Food* project performs as an example of transmedia storytelling in journalism. To answer that I examine five categories of narrower research questions:

RQ-1 Scale

a) How big is the *Future of Food* project?

b) What influence might this scale have on public interaction with the project?

RQ-2 Media Form

a) What media forms are used in storytelling for the *Future of Food* project?

b) How frequently is each used?

c) What nontraditional forms are used?

RQ-3 Media Channel

a) What NGS media channels are used to publish *Future of Food* stories?

b) What NGS media channels are not used?

c) What non-NGS media channels are used?

RQ-4 Content and Worldbuilding

a) How cohesive is the *Future of Food* project's subject matter?

b) How expansive is it?

c) Is the balance effective, making the storyworld well-defined?

d) How often do stories repeat across media channels?

e) What avenues for public interaction are provided?

f) Are those interactions contributory or commentary?

RQ-5 Network Formation

a) What is the size and structure of the story networks for each NGS channel?

b) What is the structure of the network that those channels combine to form?

c) Which of the above channels are more central within the network?

  d) Which are peripheral?

  e) How interlinked are the stories in the *Future of Food* project?

  f) How are those channels linked to the wider Internet?

As discussed in the previous section, with the flexibility of ANT, there are myriad network arrangements that could be understood from uncountable perspectives. This dissertation is a first step in analyzing transmedia story networks, and by necessity limits its perspective to the relationship between the stories in the project and the channels on which they are published. More possibilities will be discussed in the Next Research Steps section at the end of the document.

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Method

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Case selection

  Many transmedia stories exist in journalism. I can easily argue that any major story emerges in a transmedia form without the design efforts of editors or producers. We engage with news about an important unfolding event through every channel available and consume its stories in series. Scale is not important either. When we engage with any real-world story we compare its circumstances to our own lives, perhaps see it reflected elsewhere or we investigate more of the backstory when we are intrigued. As discussed earlier, a good story will inevitably evolve into a transmedia telling. However, this dissertation is about the *design* of transmedia stories in journalism, a potentially effective method to make the inevitable more efficient, and to break the filter bubbles the 21st-century mediascape may harden.

  Several cases were carefully considered, from National Public Radio's *Border Stories* series to the National Film Board of Canada's *Highrise Project*. These stories can be difficult to find as it is not a requirement of a transmedia story to be evident to the public. Few transmedia

projects in any industry advertise their design work. However, when introduced to the *Future of Food* project, I knew the best available case was in hand. Because of its structure, diverse economic model and the variety of channels available, the NGS long intrigued me as a possible place for transmedia journalism to emerge. Though they were not declaring the project a transmedia storyworld, its design and structure closely reflected this dissertation's understanding of a transmedia story.

Research Instruments

Coding of stories in the *Future of Food* project began on April 24, 2014, with the arrival of the print edition of the May issue of *National Geographic*. Though in interview with project manager Kaitlin Yarnall, I was given a reasonably thorough rundown of the stories, that list of stories was not referenced again until after coding was finished. As arguably the most attentive reader of the project outside of the Society itself, I should find all the relevant parts of the project; if I did not encounter a story, then it was arguably not effective. Likewise, I might encounter other media that to the reader would arguably be part of the storyworld whether it was designed as such or not.

Two spreadsheets were used for coding — one for the Society's traditional channels and another for Society social media accounts. The author coded stories, and after creating the spreadsheets, carefully defining their data points and coding a month of posts, the social media spreadsheet was completed by graduate student Carolyn Moreau. The social media spreadsheet was closely watched by the author for compliance. Though most data points are numeric, binary or list based, some items were used in an exploratory way. For example, story subjects were collected from the *nut graph*[3] of each. Though inter-coder reliability would be prefered for

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[3] In journalistic story structure the *nut graph* is the short paragraph that clearly states what the story is about. It often follows an anecdotal lede or a lede quote.

thorough quantitative study of the subject matter, these ideas were catalogued for qualitative exploration. At a later date these stories may be revisited under the rigor of inter-coder reliability. Stories were coded for the following data points:

- Story ID number
- Headline/Title
- URL (if applicable)
- Section/standing feature
- Date of publication
- Date of analysis
- Media channel
- Society division
- Start page (if applicable)
- End page (if applicable)
- Page count
- Broadcast segment
- Archive story? (y/n)
- Archive story original publication date
- Archive story original media channel
- Media forms (check boxes for text, photo, graphic, video, illustration, audio, lecture, artifact, game, other)
- If "other" used, what forms?
- Word count
- Photo count
- Graphic/illustration count
- Video durations (4 slots)
- Audio duration
- Authors
- Interactive? (y/n)
- User contribution? (y/n)
- User comment possible? (y/n)
- Principal event depicted in story
- Principal subject depicted in story (place, issue, etc.)
- Secondary subject
- Character names
- Story location or dateline

- Journalistic genre (feature, news, investigation, profile, analysis, undetermined, Q&A, editor's note, guest editorial, photo essay, how-to, letter to the editor, teaser)
- Direct repeat of prior story? (y/n)
- ID of repeated story
- Images/video repeated? (y/n)
- Video/audio repeats text? (y/n)
- Food Series branded/ (y/n)
- Online sidebar series reference? (y/n)
- Links to Web hub? (y/n)
- Linked on hub? (y/n)
- Embedded to or from other source? (y/n)
- From/to where embedded
- Links to other media in storyworld? (y/n)
- Which media linked
- Refers to other media in storyworld (no active link but other story(s) identified)?
- To which media referred
- Links from other media (internal/external)? (y/n)
- From which media linked
- Links to non-NGS media? (y/n)
- Type of media linked
- Transmedia journalism principles engaged (checkboxes for Shareability, Drillability, Continuity, Multiplicity, Immersion, Extractability, Worldbuilding, Seriality, Subjectivity, Performance)
- Item/project notes

Social media posts were coded for the following data points:

- Item number
- Date of publication
- Date of analysis
- NGS social media channel
- Post URL
- Author
- Citizen author (y/n)
- Non-NGS account
- Text of post
- Media forms used (check boxes for text, photo, video, other)
- Word count

- Photo count
- Video duration
- Promotes a published story? (y/n)
- URL or location of story promoted
- Advances unpublished story? (y/n)
- Description of advanced story
- Expands on a published story? (y/n)
- URL or headline of story expanded (if applicable)
- Behind the scenes? (y/n)
- Notes

Both spreadsheets expanded early in data collection as the structure of the project became clear. When a column was added or revised, all previous stories were recoded for compliance.

Data Collection

Data were collected in sessions as frequently as possible, averaging twice a week. The research resulted in 70,554 data points among the spreadsheets. Though stories continue to be produced in May 2015 for the project's *The Plate* blog series, coding stopped after the project's planned end date on December 31, 2014.

Data Analysis and Tools

To answer research questions of project scale, how media form and media channel were used and how the storyworld was defined, basic statistics were generated through spreadsheet mathematical functions. Throughout the process, notes were entered into each spreadsheet to facilitate qualitative critique of the *Future of Food* project. To answer questions of network structure, the data were analyzed using the methods of social network analysis (Hansen et al., 2011; Kadushin, 2012) to generate a distant reading (Moretti, 2013; Schulz, 2011) of the *Future of Food* project.

Social network analysis uses statistical tools to calculate and visualize the structure of networks. As the statistics for a complicated network of interactions is often difficult to parse through lists of relationships and the numbers that define them, visualizations, or *sociograms,* of the relationships between people, objects or both are generated to enable observation of the network. The actors in the network are characterized as *nodes* or *vertices* and the interactions between them as *relationships* or *edges.* Many measures can be applied to describe human and non-human relationships, however, as this study focuses on the non-human actors in the nested networks of the *Future of Food* project. The following is a selection of the measures that inform this analysis:

- **Centrality** — This measure of "popularity" demonstrates the influence a node may have in the network through the number of inbound and outbound connections to the node. There are many centrality metrics available, but this study uses two: PageRank centrality calculates not only how many connections there are to the node, but also the importance of those connected nodes. This algorithm was named for Larry Page of Google, and is used by that company to rank Web pages for their apparent importance (Altman & Tennenholtz, 2005). When PageRank centrality is unavailable in the tools used, the simpler degree centrality calculates the number of connected nodes (Hansen et al., 2011, p. 72). In this study, centrality indicates which channels and stories arguably carry the most influence in the project.

- **Graph density** — Density is the number of direct connections divided by the number of possible connections in a network (Kadushin, 2012, p. 29). In this study density measures show how well interconnected channels and stories in the project are, allowing for transmedia exploration by the public.

- **Clustering coefficient** — This is a measure of "cliquishness" in a human social network. Which friends are also connected to your other friends forming cliques within the wider network? (Hansen et al., 2011, p. 72) In this study the clustering coefficient is not only used to describe the modularity of the *Future of Food* network, but also to plot its nodes on visualizations of the network.

- **Fruchterman-Reingold algorithm** — This algorithm generates sociogram layouts of networks for visual analysis. It is a force-directed algorithm that treats edges, or the connections between nodes, as springs. It moves nodes closer or further from each other in attempt to increase the readability of the graph, avoiding illegible clumping of nodes. It allows for multiple iterations of graph plotting to stabilize output and ensure uniformity in the resulting graph. In this analysis it is chosen when it generates the best visualization of a particular network, a purely aesthetic choice. (Hansen et al., 2011, p. 96)

- **Harel-Koren Fast Multiscale algorithm** — Similar to the above, this algorithm provides a different aesthetic choice in generating a readable network graph. Both this and the Fruchterman-Reingold algorithm are used in graph generation in this dissertation. (Hansen et al., 2011; Harel & Koren, 2001)

Two software systems were used to calculate these measures, plot the graphs used in analysis and to position and scale their nodes: NodeXL (Hansen et al., 2011; M. A. Smith et al., 2014) is an open-source template for Microsoft's Excel spreadsheet program that generates social network analysis metrics from a matrix of nodes and plots the data on sociograms. VOSON (Ackland, 2011) is an online toolset for crawling the Web for inbound and outbound links to seed sites. Like NodeXL it generates social network analysis metrics and plots the data on sociograms for visual analysis.

The analysis of collected data combines to form a distant reading of the Future of Food project. The view provided is not into the rhetoric nor sentiment of the stories within the project, but how the individual stories interact as a networked unit.

Results and Discussion

Scale of the *Future of Food* project

Research question category RQ-1 asks two questions of the scale of the Future of Food project and what influence that might have on public interaction with its stories. The project was enormous, as the totals in Tables 4.1 and 4.2 show. Forty-one media channels were used for 823 stories. Table 5.1 lists these channels with description and number of stories coded for each channel. As stated earlier in the chapter, more stories may exist but were not promoted as part of the project or were not linked by other parts of the project. This relative invisibility would render a channel or story a negligible part of the project.

A channel is defined here as a discrete publication space with an individual identity. For example, though all NGS websites link under the umbrella of *nationalgeographic.com,* subdomains, blogs and other titled spaces within that hierarchy act independently. Subdomains such as *news.nationalgeographic.com* are destination addresses reached directly by most users. Included in Table 5.1 below are the channels that the NGS used to tell stories. Social media sites like *Facebook* and *Twitter* are not included in the table as the Society used them for promotional outreach, only linking stories located in other channels. The classic social media sites *Instagram* and *YouTube* are included, however. They contained complete stories that expanded upon reporting in other channels. For example, NGS photographers assigned to the *Future of Food* project told short visual stories on *Instagram* that extended magazine and Web content and took readers behind the scenes of their work.

Table 5.1: *Future of Food* Publication Channels

Channel	Description	Stories
THEPLATE.nationalgeographic.com	The Plate food project blog series	201
Instagram (NGS account)	Social media microblogging site	131
NEWS.nationalgeographic.com	NGS online news service	95
YouTube (NGS channel)	Social media video site	78
National Geographic magazine	Traditional magazine	44
National Geographic magazine iPad app	Tablet application that repeats magazine	43
TRAVEL.nationalgeographic.com	Traveler magazine website	28
FOOD.nationalgeographic.com	Future of Food project Web hub	25
PROOF.nationalgeographic.com	Behind-the-scenes photography blog	18
Future of Food Special Edition	iPad tablet app compilation of mag. stories	17
National Geographic Weekend radio show	Public radio syndicated broadcast and podcast	15
ONWARD.nationalgeographic.com	Medium-form feature blog	14
VIDEO.nationalgeographic.com	NGS proprietary video site	14
EVENTS.nationalgeographic.com	website for NGS live events and lectures	10
nationalgeographic.com	Umbrella Web hub for the NGS	9
National Geographic Channel	Cable channel in partnership with Fox TV	8
INTELLIGENTTRAVEL.nationalgeographic.com	Traveler magazine blog	7
NGM-BETA.nationalgeographic.com	National Geographic magazine archive site	7
EDUCATION.nationalgeographic.com	Educational site for classroom and student use	6
National Geographic Traveler magazine	Traditional travel magazine	5
Traveler magazine iPad app	Tablet application that repeats magazine	5
Chautauqua Institution lectures	External organization summer lecture series	4
PHOTOGRAPHY.nationalgeographic.com	Photographic approach and technique blog	4
BLOG.EDUCATION.nationalgeographic.com	Education service blog	3
Book	Traditional books from NGS publishing	3
CHANNEL.nationalgeographic.com	National Geographic Channel website	3
NEWSWATCH.nationalgeographic.com	Now-retired curated news site	3
OUTOFEDENWALK.nationalgeographic.com	Blog for Paul Salopek's worldwide walk	3
DIGITALNOMAD.nationalgeographic.com	Traveler magazine blog	2
HACKATHON.nationalgeographic.com	Site for May 2014 food hackathon event	2
National Geographic Kids magazine	Traditional children's magazine	2
www.nationalgeographic.com/EXPLORERS	Site introducing sponsored explorers	2
nationalgeographicEXPEDITIONS.com	Guided travel and tours website	2
PHENOMENA.nationalgeographic.com	Science blog	2
Vimeo	Video hosting website	2
DVD	Video disk	1
Forum	Future of Food project-specific lecture forum	1
GAMES.nationalgeographic.com	NGS games website	1
KIDS.nationalgeographic.com	Kids magazine website	1
National Geographic Museum	Brick-and-mortar Washington, D.C. museum	1
ONASSIGNMENT.nationalgeographic.com	Behind-the-scenes reporting blog	1
Totals	**41**	**823**

This scale is impressive for any journalism project, using more channels than any other

journalism series that I have yet encountered, and possibly more than any transmedia storytelling

project in the entertainment industries. That scale also contributes to one of the *Future of Food*

project's greatest weaknesses. As described in the last chapter, mastery of a subject can promote

the real-world change the NGS appears to seek with this project. As the Elaboration Likelihood

Model of Persuasion (ELM) (Petty & Cacioppo, 1986) argues, the longer the public engages with

a real-world issue and the more meaningful the information about that issue is, the more likely

they are to act on the information. The ELM describes the process of yielding to a persuasive

message through stages that begin with motivation and end with central attitude change. Though

many journalists argue they are presenting empirical information rather than actively persuading,

the information they present is more likely to be put to meaningful use if they define storyworlds

that enable not only exploration, but also mastery. *National Geographic's* 2014 food series is so

large it defies mastery. Only my need to examine all of the pieces of the project propelled me

through this massive array of media. A smaller project, I argue, would not only have appeared

more approachable from the public point of view, but also would have helped the NGS better

define its subject matter and would lead to a cohesive approach.

Use of Media Form

Research question category RQ-2 investigates the use of media form in the *Future of*

Food project. As discussed in chapter three, media form is a location-independent understanding

of media as a language. It includes text, audio, video, lecture, game, conversation and others that

may be applied on a number of media channels. Media forms each bring with them varying

affordances that affect the way a message is received. As an actor in a communication network,

the form a story takes will influence how the message is understood by human (and perhaps

nonhuman) actors elsewhere in the network.

The totals in Table 5.1 illustrate only one view of the project's scale. The statistics shown

in Table 5.2, below, represent the volume of content within these stories:

Table 5.2: *Future of Food* Analyzed Project Stories

Media Form	# Stories & Posts	Count	Minimum	Maximum	Average
Words	952	682,223	1	96,830	717
Photographs	696	3555	1	575	5
Illustrations	110	659	1	100	5.99
Video hours	243	31h 24m 5s	4s	4h 30m	7m 45s
Audio hours	20	2h 33m 46s	2m 32s	12m 57s	7m 41s
Delineated Pages	103	1535.5	0.25	320	14.91
Lectures	6	17	n/a	n/a	n/a
Artifacts	6	n/a	n/a	n/a	n/a
Games	3	4	1	2	1.3
Interactives	3	3	1	1	1
Meals	3	3	1	1	1
Quizzes	3	3	1	1	1
Tours	4	4	1	1	1
Hackathon	1	1	1	1	1

The 682,223 words counted is roughly equivalent to the length of each of two of the world's

longest novels: Ayn Rand's *Atlas Shrugged,* or Victor Hugo's *Les Miserables* (Wikipedia

contributors, 2015). These totals are only one lens on the scope of the project, however. Some of

the stories, though their count is low, wield a large influence. For example, the exhibition

mounted in the *National Geographic Museum,* "Food: Our Global Kitchen," represents not only

substantial preparation, but also deep immersion and time spent for the visitor. Other channels,

such as *The Plate* blog series, yield impressive numbers of stories, text and images published, yet

the time invested by readers may be low by comparison. The story responsible for the highest

maximums in the table above is the *Foods for Health* book produced for the series. Though it is a

sizable volume, its encyclopedic structure likely inspires fleeting bursts of attention.

The bulk of the *Future of Food* project's stories use the media forms for which the NGS

has long been noted — text and photographs — as seen in Figure 5.1:

Figure 5.1: Percentage of Total Stories Using Coded Media Forms
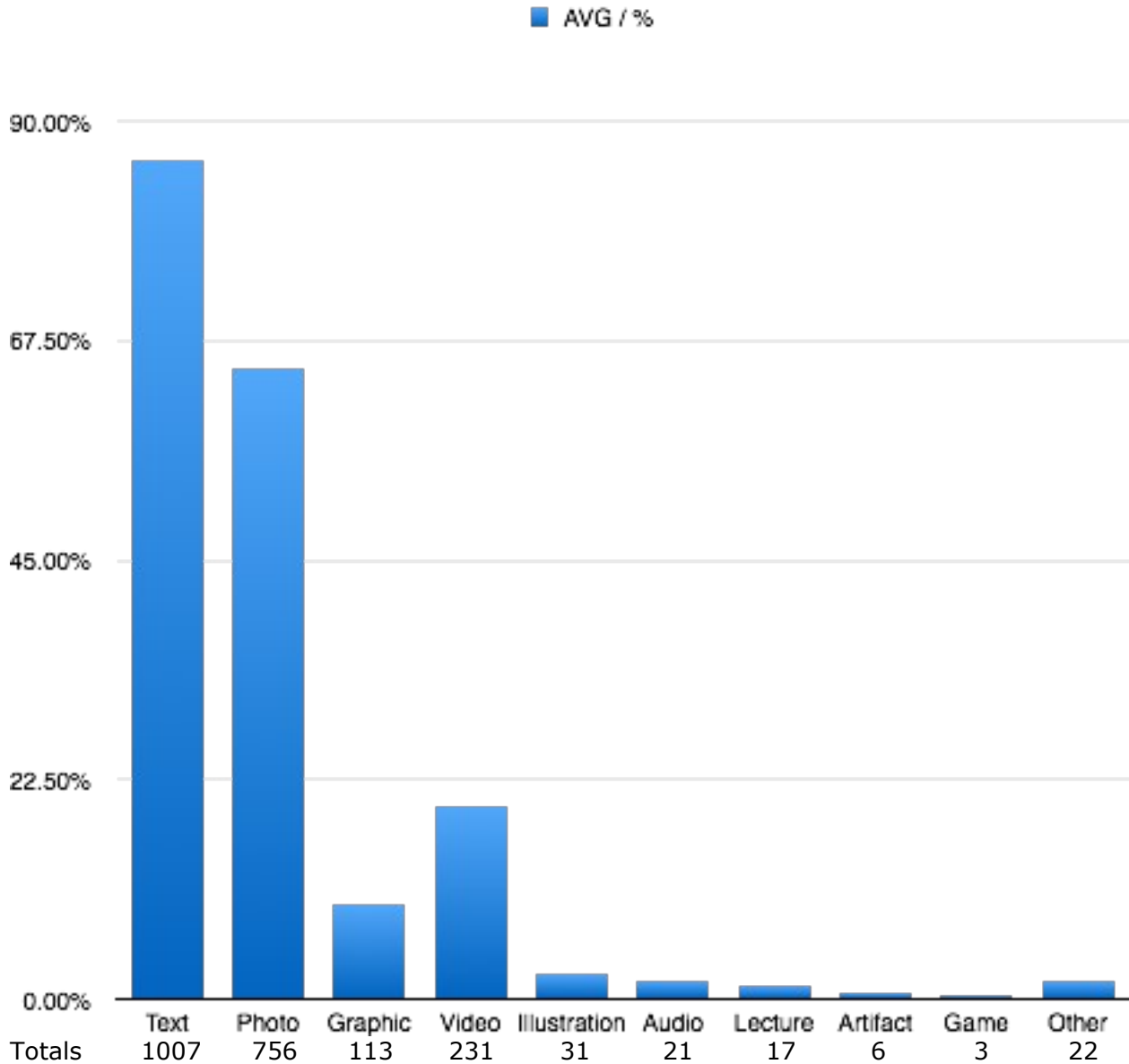
Forms not traditionally used in journalism appear in the project in important ways, however. The

Food: Our Global Kitchen museum exhibition uses artifacts and physical objects to tell stories in

immersive ways that a two-dimensional page cannot. Museums engage Walter Benjamin's

(1968) "aura of the original" for the viewer. Likewise, telling the story of food through dishes of

food itself, exploiting physical presence through guided tours and excursions, engaging the

singular and unrepeatable experience of a live event, and allowing public contribution through a

hackathon extend the concept of what constitutes a piece of journalism and allows for deeper

transmedia engagement.

Use of Media Channel

Table 5.1 above lists the 41 media channels employed by the NGS for the *Future of Food*

project. Conspicuously absent from the list are entries from the NGS's feature film division,

National Geographic Little Kids magazine and the *Nat Geo Wild* cable channel, their websites

and social media. At least four available channels were not used: two for the the *Wild* and one

each for the feature film unit and *Little Kids* magazine. The four not used for the project make up

only nine percent of 44 available proprietary publication channels. Few external channels were

used to extend the reach of the project. Two publication partnerships were formed, one with the

Chautauqua Institution lecture series and another with the American Museum of Natural History

for the "Food: Our Global Kitchen" exhibition. *Instagram* and *YouTube* also hosted both new

and repurposed content.

Without access to NGS proprietary consumer data it is very difficult to characterize the

audiences for the 41 channels used. This proprietary information has great economic value for a

research firm or commercial publisher and is only partially available from open, third-party

research services. Data reported by these services varies in content and structure, making

comparison of the demographic reach of each channel difficult if not inconclusive. *National*

Geographic magazine readers likely differ demographically from *National Geographic Channel*

viewers, and print magazines likely appeal to older publics than online and tablet publications.

As a result the array of channels used likely reached a wide cross-section of publics. Keeping this

project within the NGS family has the advantages of higher profits and greater control, but it

suffers the disadvantage of limited demographic reach. By building partnerships with other

publishers, the NGS could target new publics its media may not effectively reach and expand

public awareness of the issue. In the past the NGS has partnered with organizations like *National

Public Radio, PBS* and news services like the *Associated Press.* Renewing partnerships of this

kind would be valuable to their transmedia production.

Content and Worldbuilding

If a goal of transmedia storytelling is to allow for exploration of a storyworld by engaged

publics, then one story should expand upon, rather than repeat another. If a text-and-image story

reports the same scenes, interviews or circumstances that a video piece does, then there is little

reason to engage with both. Exploration is discouraged. In this regard the NGS *Future of Food*

project was quite successful. Repetition of story content in the project was quite small, as Table

5.3 shows:

Table 5.3: Story Repetition

	Count	Percentage
Stories repeated on a second channel	167	14.26%
Images and video repeated in other stories	90	7.69%
Audio/video directly repeats story text	5	0.72%
Archive stories linked to new work	32	2.73%

A distinguishing characteristic of transmedia storytelling is limited repetition of story content. A

well-designed transmedia project encourages an engaged reader to explore, interacting with the

storyworld in a variety of media channels where each story adds new understanding of the

subject. However, journalism has a tradition — or perhaps a habit — of repeating content in different media forms or on new media channels. The motivation behind this may be the valuable effort invested in creating the most rigorous and accurate story possible, the result of which should be reused to reach wider audiences. It may come from historic wire service practices where one story is distributed or syndicated across the nation. This tradition tends to persist in multimedia journalism where the same story content appears in text and in video as was the case with the *New York Times'* Pulitzer-winning multimedia piece "Snowfall: The Avalanche at Tunnel Creek" (Branch, 2012). Repetitive content, I argue, provides little return on time investment for the public. The National Geographic Society's work on the *Future of Food* makes a much needed break from this practice.

In telling fictional transmedia stories worldbuilding is a process of creation. In journalism, however, defining a storyworld is an act of delimitation. With fiction, the workload involved in creating stories that develop a complex storyworld is an effective limit on its growth. However, journalists work with storyworlds that already exist. The task here is to define the limits of the storyworld (or scope of coverage) carefully. If that storyworld is too loosely defined or too large, one of the greatest advantages of transmedia storytelling — designing engagement and learning across the mediascape — is lost. Clearly, an engaged reader can always explore the mediascape on a topic of interest herself, but enabling that exploration through design helps the journalist's goals of providing rigorously gathered information rather than hearsay, and directing important information to critical publics. Economic advantages may also increase with more thorough engagement with the producer's media, with his publication partners or with subject-producer name recognition. It could help allow a journalist to "own the subject."

Here the NGS does not fare so well. With a storyworld of 823 stories, the coverage of the subject of the *Future of Food* is sprawling. Stories within the project dealt with everything from the important subjects of global food sustainability, poverty and drought to the not-so-serious subjects of junk food lust and how to bake a better cake. The volume of work would feel unapproachable to the most committed of foodies. Anyone who might aspire to Comic-Book-Guy-like mastery of the subject would be intimidated by the volume. An attempt to read all of it would be daunting (or the work of a doctoral researcher).

Much of this volume originates with one source. *The Plate* blogs published almost daily through the run of the eight-month project with 201 stories by five regular authors and several guests. The series continues at this writing. The logic behind this particular channel was explained by NGS director of multimedia Mike Schmidt during interviews as he described the need to be "part of the conversation" by publishing daily (personal communication, Jan. 21, 2014). Much of the traction a blog receives comes from the regularity of its posts, and the NGS is clearly working hard to make *The Plate* a rich feed. Though this conversational aspiration is very valuable, it likely suffers from a poor assumption. The focus of the Society's attention, I argue, is on its premier product, the *National Geographic* magazine. *The Plate* is to the editors a purely secondary social media product, the selection of its subject matter not deserving of the same focused attention as the material that lands between the yellow borders. This second- or third-class status also neglects the tremendous network power of social spaces like blogs. As will be described later in this chapter, *The Plate's* regular feeds, high connectivity to other media, tradition of hot-linking sources and vibrant comment interactions fueled the most active and conversational network in the storyworld. The volume of this daily food feed was not its weakness. Rather, it was the lack of specific direction of the bloggers and its chaos of food-

related subject matter that complicates the *Future of Food* storyworld. With its strong

interactions, *The Plate* is one of the most important channels in the project, and to the reader its

content is not likely secondary to the magazine's. The blog series needs as specific of a

delimitation as any other part of the project. It should be a space for a certain segment of the

tightly defined scope of coverage for the project and should not stray widely from that. The five

contracted bloggers each appear to have a purpose within the series — a celebrity chef, an

environmental journalist, a food historian, a home cook and locavore and a food attorney — but

they all stray from their topic areas leading the blog series into an apparent random stream of

subject matter.

In other channels the NGS performs much better at storyworld border definition. The

National Geographic magazine published eight issues in series, each with a well-defined theme

that tackled a subject of global importance. The rigor we normally associate with the publication

was evident, and this well-defined set of subjects may have been precisely the storyworld border

the project needed. Travel publications focused on the joy of worldwide food experience, the

National Geographic Channel's "EAT: The Story of Food" miniseries explored the human love

affair with all food, good and bad, and the *National Geographic Daily News* site covered drought

and breaking food science and engineering news. With the exception of *The Plate,* each channel

at least loosely covered topics within its area of expertise. *The Plate* muddled all of it below the

radar of the editors by covering anything that might carry the "food" metadata tag.

Social Interaction

Much of *The Plate's* influence comes from the social interaction enabled with the blog

format. Share and trackback links and public comment have been integral to blogs from their

earliest implementations. Though these features do exist in the more traditional publishing

formats used for other channels in the *Future of Food* project, there they are afterthoughts.

Stories contain few if any links to internal or external information, and though comment fields

are present the writing of stories for legacy channels maintains a 20th-century one-to-many air.

Social interactions to answer parts e and f of research question category RQ-4 were gathered

directly from NGS storytelling channels where like and share buttons report totals to encourage

further interaction. Comment counts were also taken directly from the sites that enabled

commenting. Only YouTube enables "dislikes," and though these are negative interactions they

were counted in the total.

The data were collected in March 2015, on stories published before December 31, 2014.

The delay was to allow social interaction with the particular stories or posts to stabilize. Though

the age of a particular site surely influences traffic and totals, the dates of share and comment

enabling are not available. For some of the more permanent online channels, such as the NGS

photography site that tops the list in Figure 5.4, social capital building likely elevates numbers as

readers demonstrate their worldliness by sharing *National Geographic* content on their social

feeds. Social capital or not, however, all shares contribute to the traction of a story and its wider

network. Table 5.4 shows the results by channel with the average per story in the last column

with the table sorted by total social interactions. Channels marked in red are those particular to

the *Future of Food* project.

Table 5.4: Social Interactions On Enabled Channels

Channel	Likes	Shares	Comments	Dislikes	Total	Average/ Story
PHOTOGRAPHY.nationalgeographic.com	88,000	2,254	120		90,374	7,531
NEWSWATCH.nationalgeographic.com	26,100	1,636	66		27,802	3,089
NEWS.nationalgeographic.com	757,020	51,240	1,686		809,946	2,945
PROOF.nationalgeographic.com	123,376	4,555	631		128,562	2,521
nationalgeographic.com	33,068	540	269		33,877	2,258
FOOD.nationalgeographic.com	51,315	8,807	572		60,694	2,023
THEPLATE.nationalgeographic.com	384,886	16,149	209		401,244	1,996
www.nationalgeographic.com/EXPLORERS	8,145	54	131		8,330	1,666
OUTOFEDENWALK.nationalgeographic.com	12,695	381	104		13,180	1,464
TRAVEL.nationalgeographic.com	80,484	8,477	33		88,994	1,413
ONWARD.nationalgeographic.com	32,090	815	119		33,024	786
NatGeoEat.com Web hub for TV miniseries	1,400	133	0		1,533	767
Future of Food Forum website	509	526	0		1,035	518
INTELLIGENTTRAVEL.nationalgeographic.com	5,139	1,550	10		6,699	319
PHENOMENA.nationalgeographic.com	1,233	400	19		1,652	275
DIGITALNOMAD.nationalgeographic.com	624	124	4		752	125
YouTube (NGS channel)	123,775	1,841	2,176	576	16,968	57
BLOG.EDUCATION.nationalgeographic.com	362	26	3		391	49
DVD	23	0	0		23	23
ONASSIGNMENT.nationalgeographic.com	8	36	0		44	15
Chautauqua Institution lectures	8	154	1		167	13
CHANNEL.nationalgeographic.com	54	9	2		65	11
HACKATHON.nationalgeographic.com	26	12	0		38	8
National Geographic Weekend radio show	150	27	0		177	5
Book	15	2	0		17	3
Vimeo	3	0	0		3	1
Totals	**1,730,508**	**99,748**	**6,155**	**576**	**1,725,591**	**1,149**

The top channel five channels in the table above either predate the *Future of Food* project by years, and therefore have built consistent followings, or they are closely tied to the content that makes the National Geographic a prestigious title— photography. The top channel often features user-submitted images for a section of that site, *Your Shot*, an enormously popular feature. Close behind, however, are the hub for the entire Future of Food project and The Plate. This blog series has the second largest number of social interactions after the highly popular

news service, showing its traction among the public though its design, as discussed above, appears to be more of an afterthought. By enabling the affordances of blog spaces — sharing, commenting and conversation — the channel with far less apparent editorial oversight is one of the project's most important. Two of the top ten stories for social interaction originate with *The Plate*. Though subject matter was tracked for this study only as an exploratory measure, Table 5.5 below lists top ten stories by social interaction with their headlines:

Table 5.5: Top Ten Shared Stories

Channel	Headline	Interactions
PROOF.nationalgeographic.com	Finding the Faces of Farming: A Peruvian Potato Harvest	38,400
NEWS.nationalgeographic.com	The Surprising Ways That Chickens Changed the World	34,683
THEPLATE.nationalgeographic.com	Could Robot Bees Help Save Our Crops?	31,583
NEWS.nationalgeographic.com	One-Third of Food Is Lost or Wasted: What Can Be Done	30,750
NEWS.nationalgeographic.com	Second Silent Spring? Bird Declines Linked to Popular Pesticides	30,087
NEWS.nationalgeographic.com	Scientists Envision Growing Meat Without Killing the Animal	29,809
THEPLATE.nationalgeographic.com	Pears Like Little Buddhas	29,467
PHOTOGRAPHY.nationalgeographic.com	Savoring Chance	28,892
NEWS.nationalgeographic.com	As Honeybees Die Off, First Inventory of Wild Bees Is Under Way	28,413
PHOTOGRAPHY.nationalgeographic.com	Morning Tea	28,186

The top listing above is a behind-the-scenes look at a series of portraits that appeared in the first *National Geographic* magazine issue from the *Future of Food* project. Two of the items are user-submitted "Photo of the Day" images — "Savoring Chance" and "Morning Tea." Stories from *The Plate* include one story on robotic pollinators that could replace bees in case of disaster and another very light story on molding young pears into the shape of the Buddha as they mature — a very divergent pair of subjects. The five stories from the daily news service cover sustainability issues. Three of the top ten cover bee colony collapse disorder and the concern over food crop pollination. Bees and Buddhas are clearly charismatic.

Network Formation

Though there are myriad ways to consider how networks form in a project as large as the *Future of Food,* this dissertation closely examines three nested levels to answer research question category RQ-5. Represented in Figure 5.2 below are the networks that form among the media channels used in the NGS project and the stories they published. The sociograms here are generated with NodeXL (Hansen et al., 2011; M. A. Smith et al., 2014) using the Harel-Koren Fast Multiscale algorithm (Hansen et al., 2011; Harel & Koren, 2001) with parameters set to isolate each channel's network in a grid of boxes for easy visibility. The central node of each graph, representing the labeled media channel, is sized according to the PageRank algorithm (Altman & Tennenholtz, 2005) for influence in the wider network of all channels. They are arranged by size with the largest networks appearing in the upper left (*The Plate*) and the smaller in the lower right (museum exhibition, forum, games, etc.) At center, in yellow, are the core properties of *National Geographic* magazine and its digital editions. For closer examination and easier readability by zooming the figures in this section have been posted online at http://transmediajournalism.org/sna/. The page is password protected with "atlas" and the images may be zoomed to full size and explored by clicking on the images directly.

Figure 5.2: Channel-Story Networks
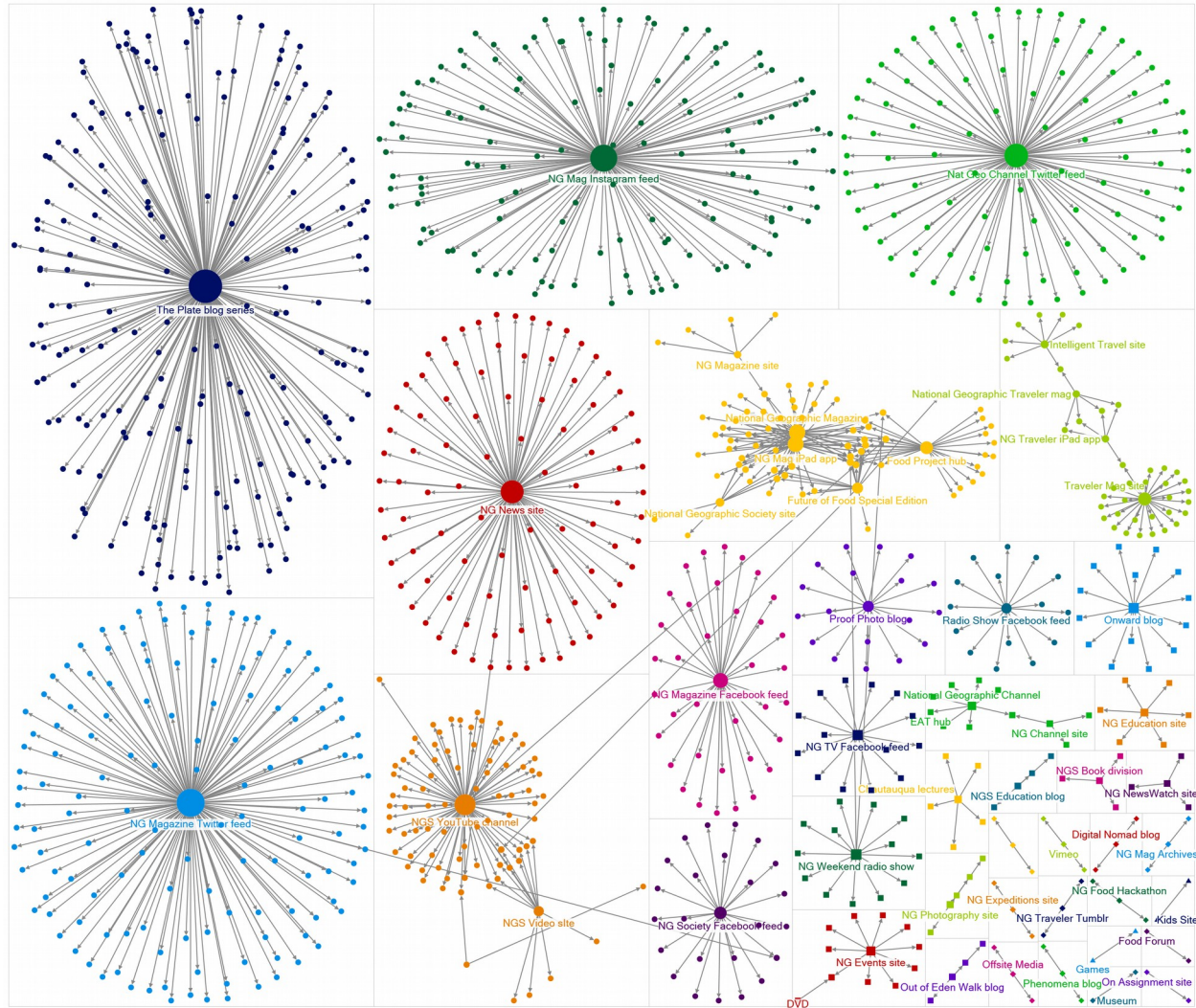
As seen above, the channels that produced the most material are also the most social — *The Plate* blogs, *Twitter* and *Instagram.* Though the channels at bottom right seem simple and small by comparison, this does not represent their depth or the time required to produce their stories. On the contrary, some of the smaller and more tightly contained networks, such as the museum exhibit, are the largest and most expensive. These graphs represent possible connection points with other networks, increasing the visibility and influence of a story. The museum exhibit, for example, is only available at a specific brick-and-mortar location for a limited time and cannot

be experienced by secondary online means. The most complex network structure in yellow above

is that formed by the *National Geographic* magazine, its digital editions and the *Future of Food*

project hub. Though the network is small, it is highly interconnected allowing for exploration

through the project's storyworld.

Again using the Harel-Koren Fast Multiscale algorithm, this time without forcing the

channels into boxes, we see how these channels overlap in Figure 5.3 below:

Figure 5.3: Channel-Story Network Overview.
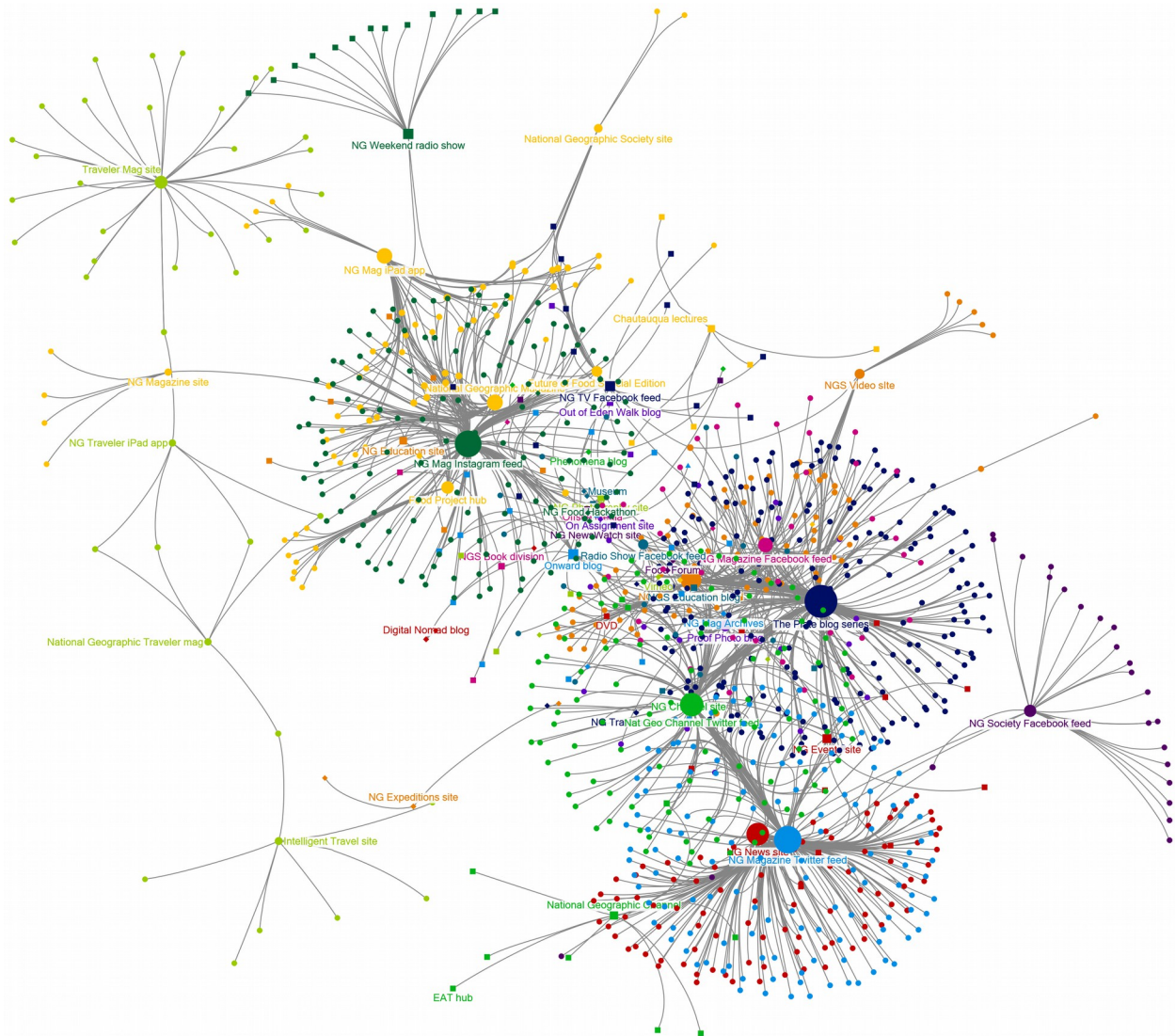
As it represents all 823 stories and 472 social media posts, the graph is very complex. But conspicuous here are the outlier subnetworks, positioned along the periphery by the algorithm for the lack of interrelation with other nodes. Nearer to center are the more related and interconnected (central) subnetworks including *The Plate, Instagram* feed, the daily news service and the *National Geographic* magazine among others. Here two statistics regarding the size and structure of the network are illustrative. In the graph above the maximum geodesic distance — how many hops required to get from one connected node to the furthest possible node — is eight. The average geodesic distance is 2.99. Without a comparison to make with other transmedia projects studied with similar measures it is difficult to judge this statistic. However, for an engaged reader the average above does not seem daunting, and a worst-case scenario of eight would not make exploration to that level impossible. The most difficult complication to exploration are nodes or subnetworks with few connections to the rest of the project.

The outliers in the above graph, I argue, show where silos still exist most among the many divisions of the NGS. The travel units — *National Geographic Traveler* and its digital editions — publishes food-related content regularly. In the graph above they appear in light yellow-green on the far left. During the *Future of Food* project that magazine and its sites made no overt connections to the other stories in the project. Material from this division was pulled into the project from the other direction, being linked on the Future of Food project's content-aggregating Web hub. This linking was not reciprocal.

The *National Geographic Weekend* radio show appears in dark green near the very top. Throughout the eight-month project the show aired segments on the project's key magazine and news service stories, referring listeners back to those stories. Despite the high quality of the interview-based show and the longtime NGS work of its host Boyd Mattson, it appears to be an

underused stepchild of the NGS. It received no links on the project hub. Though the network

above did not enable its discovery from other channels, the show did present a valuable entry

point into the project, guiding listeners to the *Future of Food* project.

Also curious is the outlier status of the *National Geographic Channel's* "EAT: The Story

of Food" miniseries, appearing near the bottom in green. As a joint venture with Fox Television

the channel may reach the largest public of any NGS media, but connection between the

miniseries (which was produced by the NGS in-house production company *National Geographic*

Television) and other *Future of Food* content was sparse. As with the case of the travel

properties, this is likely the result of long-running divisions in communication and collaboration

along product lines described in interviews at Society headquarters (personal communication,

Jan. 21, 2014).

Another outlier in purple at the bottom right is the NGS *Facebook* feed. The Society and

its divisions operate seven separate *Facebook* feeds — for the NGS, *National Geographic*

magazine, *National Geographic Weekend, National Geographic Channel, National Geographic*

Travel, National Geographic Books and the *National Geographic Museum.* Four of them posted

Future-of-Food-related content during coding. Though the feed for the Society as a whole posted

Future of Food content, it was far less central to the project than the magazine *Facebook* feeds or

even the feed for the radio show discussed above.

Another perspective on how the *Future of Food* project stories interrelate is the direct

connections from one story to another, regardless of the channel producing them. Here a graph

was produced using a circle algorithm for clarity of view. The nodes are again sized by

PageRank centrality, and the arrangement of nodes around the circumference calculated using

the clustering coefficient by the circle algorithm for best readability. The links shown are not

only digital URL links, but referrals made from analog media.

Figure 5.4: Story Links
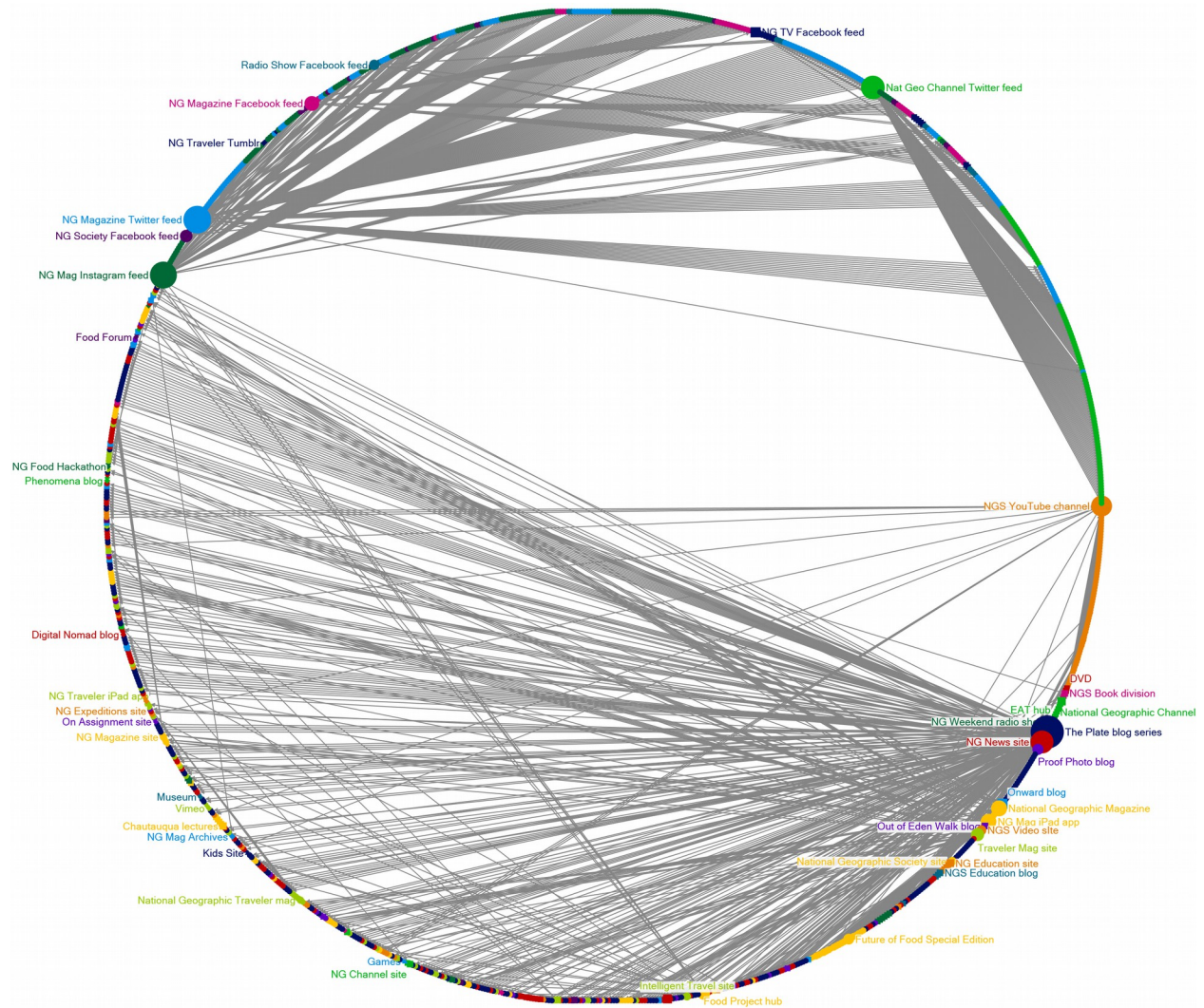
Not apparent in the graph due to its size and complexity is the direction of the connections.

Those connections are more visible in the online graphs. In most cases above the connections do

not radiate outbound connections from a channel node, rather the connections converge into the

large, highly central channel nodes. To rephrase, the stories connect to the channels and hubs far more often than the channels hubs connect out to stories.

In this view the statistic of greatest interest is graph density, or the percentage of all possible connections made among the nodes. The high modularity of the graph is visible above, with large empty gaps where stories do not interconnect. It is a very cliquish graph, showing network clusters of like stories in like channels. The graph density is 0.001880324 for roughly two tenths of a percent of the possible connections made from one node to another. This number seems small, and for other types of networks it may be. However, one must consider how interlinked the stories of a transmedia storyworld should be. If each story had within it a hot-link or other reference to *every* other story in the storyworld, the graph density would be 100 percent. The stories would be virtually unreadable, however. An ideal average, I argue, might be that each story in the storyworld links or refers directly to two other stories. In such a case the above graph density is a very good average. If the 1,106 nodes in the graph each connected to two others the density would be 0.00180832, or only slightly lower than the *Future of Food* percentage above. It is not the density of connections that is a problem in the graph; it is its modularity. Exploration of the storyworld would be better facilitated with more diverse connections — perhaps a connection to one like story and one unlike story, on average. The high modularity of linked stories in the *Future of Food* project is due to short-sighted design. The editors linked to two stories on average, but those two stories were mostly persistent links on sidebars of the page that were not updated or varied.

If the stories published on each channel of the *Future of Food* project form multiple networks (Figure 5.2), and each of those networks becomes a node in a larger network (Figure 5.3), then that network can also be seen as a node in the yet larger networks of the overall work

of the NGS, or as a node in the larger network of journalism or the network of the Internet. The

final graph represents the network connections between the *Future of Food project* and the wider

Internet. The data were gathered using the aforementioned VOSON Web crawler and its social

network analysis tools to generate a graph. The sociogram is laid out using the Fruchterman-

Reingold algorithm with nodes sized by degree centrality. The nodes are colored by generic top-

level domain as per the legend.

Figure 5.5: External Connections
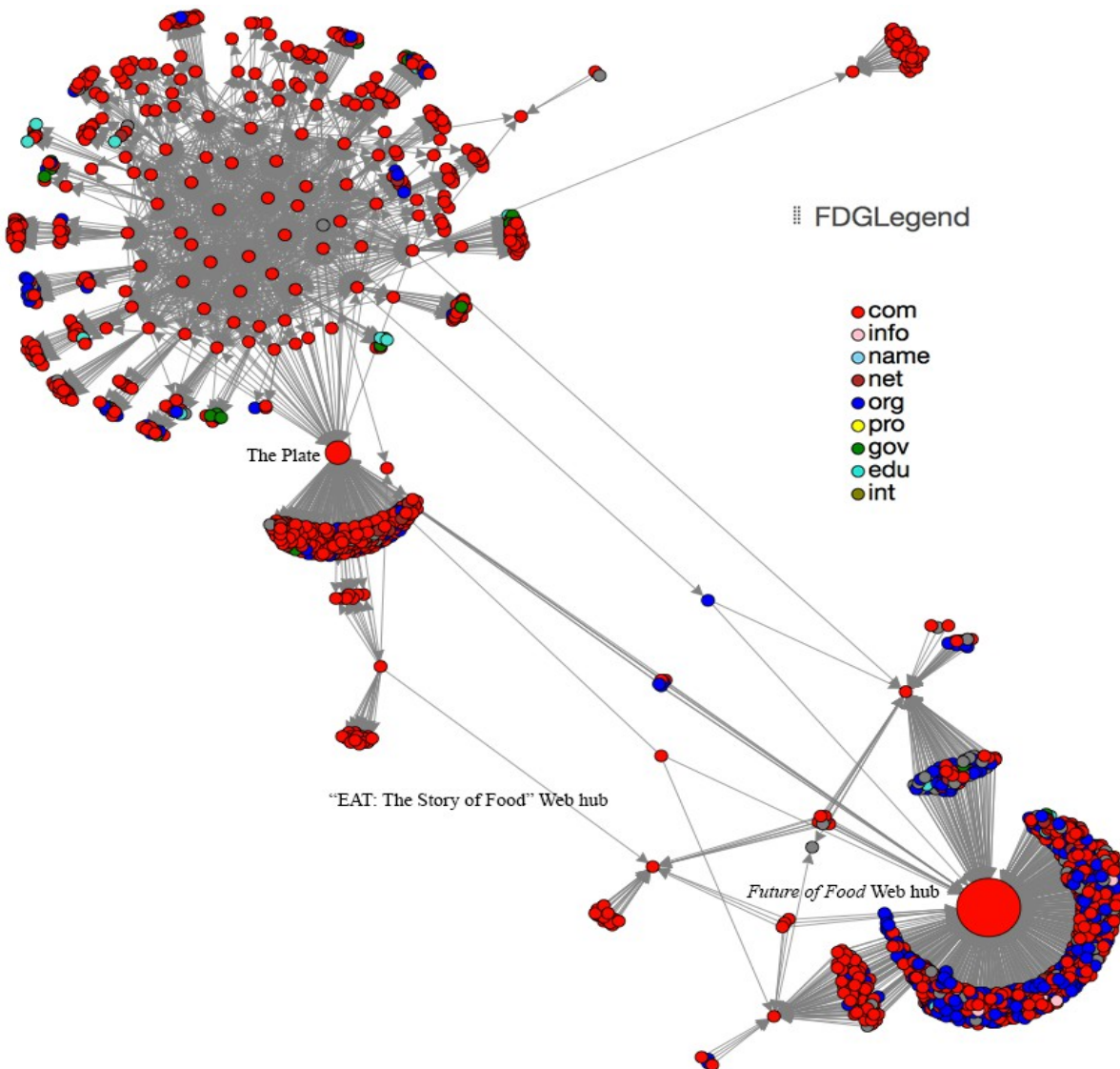
The graph shows two hubs that have strong centrality among the internal and external link connections — the Future of Food project Web hub in the lower right, and The Plate in the upper left. A third Web hub in the project, that for the "EAT: The Story of Food" miniseries, is dispersed among several nodes on the lower left. The tightly organized and contained nodes surrounding the *Future of Food* hub contrast sharply with the complex structure surrounding *The Plate.* The origin of this difference is the conversational nature of the blog format. With the food hub at lower left we see exclusively inbound links coming from a high percentage of blue .org sites. These food- and sustainability-related organizations link to the project as a service for their publics. In contrast, the similar-looking structure below the *The Plate* node in the graph — a tight crescent of nodes — are outbound links from *The Plate* to source material and related external content. The complex structure directly above the *The Plate* node is the heavily interlinked array of blog category links with individual *The Plate* stories, story sources and inbound links from the wider Internet. The structure demonstrates the rich network interaction from a media channel designed to be social from the outset. It illustrates a many-to-many communication model as opposed to the legacy media represented in the graph which show a one-to-many mass media logic. Though they are Web media, the structure of the connections to the *Future of Food* hub reflects the "industrial information economy" described by Yochai Benkler in chapter two.

The small connected network in the far upper right of the graph is something of a curiosity. A story from *The Plate,* "How Google Glass Will Change the Way You Cook" received enough external pull from the number and influence of sites that linked to it that its node is pulled far off center. This divergent story produced by *The Plate* certainly caught attention, though it strays from the core sustainability subject matter of the project.

This chapter closely examined the National Geographic Society's first intentionally designed transmedia project in *The Future of Food*. The first parts investigated changes in the Society's organizational structure and storytelling philosophy through interviews with editorial staff. To explain the storytelling form, these interviews contextualized a theoretical approach that combined Actor-Network Theory with Multimodality. Through that combination not only was the perpetually cascading and reforming array of networks better understood, but also the agency that inanimate objects like stories and publication channels have in a transmedia story network. A set of research questions divided into five categories was explored through qualitative analysis of story data and mixed-methods social network analysis. In the following and final chapter these results will be discussed in terms of the prior three chapters of the dissertation.

CHAPTER 6: CONCLUSIONS

"The illusion that times that were are better than those that are,
has probably pervaded all ages." — Horace Greeley

Into the Looking Glass

By the definitions presented in this dissertation, the National Geographic Society's (NGS) *Future of Food* project is a very compelling example of transmedia journalism. The Society produced stories using traditional media forms such as photography, text, video and illustration as well as nontraditional journalism forms like guided travel, a museum exhibit, hackathon, forum, lecture series, games, quizzes and tastings. These stories were published across a variety of the Society's available media channels, through which one can assume they reached more diverse publics than any one of those channels could alone. Story content contributed to a complex storyworld on food, agriculture, sustainability and the environment, among other topics. The subjects of those stories only very rarely repeated themselves directly. Public contribution existed through the long-running "Your Shot" user-contributed photo site, and food related images were linked into the Future of Food project's Web hub. Though it is less ideal as a form of contribution, public comment was available on two thirds of published stories. The project as a whole demonstrated the qualities media scholar Henry Jenkins described as the "Seven Principles of Transmedia Storytelling" (Jenkins, 2009b, 2009c) discussed in chapter four.

As could be expected for a prototype, however, the *Future of Food* project exhibited weaknesses. Though it is a principal advantage of transmedia storytelling to use media channel

as an avenue to diverse, new and underserved publics, the NGS did not appear to target specific

groups through its media channels. It simply used in-house media because it was available.

Audience, according to *Future of Food* project manager Kaitlin Yarnall (personal

communication, Jan. 21, 2014), is an afterthought. Few external channels published this content.

Though the storyworld may have been rigorously planned and well designed in some of the

media channels used, *The Plate* blog series complicated the definition of the storyworld through

far less editorial planning. The writers contracted for that space were excellent and their subject

categories were interesting. However, all of the contributors frequently strayed from their initial

subject areas, stretching the storyworld into such a broad array of subjects that the storyworld

defied mastery by committed publics. The network power of the blog structure pulled *The Plate*

into a central position in the project despite being peripheral in the minds of editors, making that

channel very powerful. Likewise, links and references from one story to another were not

produced in a manner that encouraged exploration. The variety of links were few, and four links

persisted across dozens, if not hundreds, of stories. As director of multimedia Mike Schmidt

(personal communication, Jan. 21, 2014) illustrated, there may be little perception at the NGS of

how publics move through stories that spread across media.

I do not wish to affect an air of superiority in these judgements. Missteps or mistakes

made by the editors of the *Future of Food* project are ones I likely would have made myself if in

the producer's chair. As a long-time journalist for legacy media I would have been as likely to

poorly define the borders of the storyworld, assuming a more-the-merrier attitude. However, the

project clearly illustrates that being encyclopedic with a real-world subject creates a daunting

document (and I may have done just that in these pages). Likewise, my experience as a

traditional journalist had until recently left me with a suspicious opinion of blog-like spaces. In

journalism we work rigorously to report stories well, keep them within ethical bounds and deliver them concisely and completely. Because of the poor rigor of many early blogs I, like many other journalists, associated them with amateurish work. However, the explosive network power of the blog spaces in the *Future of Food* project and the enormous traction gained by user-contributed images illustrate the importance of more social news — still produced with intellectual and ethical rigor — in the 21st-century mediascape.

This mediascape also demands a more thorough understanding of the definitions of media and their roles in production and publishing. Chapter three described a practical media taxonomy designed to identify the roles of content, media form and media channel and guide their use in publishing. The differentiations presented there are critical to understanding the differences between multimedia, crossmedia and transmedia storytelling in an age that enables these forms like never before. To misinterpret or overlook the roles of content, media form and media channel in any of them can render the product less valuable by denying it public traction.

Scalability

Despite its quality as a transmedia journalism project, the *Future of Food* is enormous. No other journalism organization of which I am aware could accomplish the same scale of project completely in-house. The NGS is a singular organization and their project is the product of unique circumstances. However, transmedia journalism projects do not by nature require more than 800 stories and 400 social media posts. This work can easily be scaled to fit nearly any organization or small group of independent journalists. One example, *The Marshall Project* mentioned earlier (Keller, Golden, & Dance, n.d.), appears to be accomplishing a successful transmedia project with a staff of 21 journalists and seven business managers. The key to their

project is the formation of partnerships with other organizations both for the production of stories and the targeted publishing of their work. The storyworld is narrowly defined, and though the media forms and channels engaged are limited, they appear effective in reaching their publics. Smaller transmedia organizations are also possible. Though a transmedia journalism project would be a daunting task for a single person, a small group of committed producers may accomplish much if the scope of the storyworld is kept reasonable. For independent producers without proprietary media channels at their disposal, *The Marshall Project* and the partnerships it forms would provide a more effective template than the National Geographic Society. Freelance content producers are familiar with the process of proposing and producing work that will be published by others. This process is easily extended to the logic of transmedia storytelling. By not only providing well-produced stories, but networked connections to more work from that storyworld, freelance transmedia producers add value for publishers to the individual stories they license. A transmedia project would bring an existing public with it to the publisher's content.

Transmedia journalism is also possible for other legacy media companies. Diverse publics could be targeted and reached by forming partnerships with other publishers, broadcasters and institutions to share production and publishing of the work and add value for both. The old idea of journalistic competition and the race for the scoop is largely an insider construct. The public now gathers information from an incredible array of sources, and brand loyalty to a journalism organization is much more limited than it once was. A journalist's understanding of competition should be rethought (McDowell, 2011). Transmedia production is also possible within the structure of most legacy news organizations — a simple reframing of process may achieve much. For example, the traditional "beats" of daily news make for easily defined transmedia storyworlds. Beats such as environment, state or local government or crime

and policing could be easily reframed as ongoing transmedia series. The greatest required change of perception would be that not all content produced *must* be published in that paper or on that broadcast or companion websites. Core content could be retained and others, branded by the originating organization, could be licensed elsewhere. Collaborative work with other formerly competing media could also be organized. Neither of these arrangements are new in journalism.

Strategic Decisions for Transmedia Journalism Project Development

Considering the media taxonomy presented in this dissertation and the analysis of the NGS's *Future of Food* project, what might be critical decisions for the best production of a transmedia journalism project? The following recommendations would surely be circumstantial and evolve with the development of this storytelling form and the needs of its contemporary mediascape. However, I argue the following questions must be answered before a project starts and revisited throughout production:

1. **What is the storyworld?** — As discussed above, defining a real-world storyworld is an act of *delimitation* rather than expansion. As any subject taken from the real world interconnects infinitely with every other, more than a broad subject identification is required here. For example, the NGS's *Future of Food* storyworld would have arguably encouraged more exploration if the subject matter were taken from a smaller subset. Rather than "the future food" as its umbrella, the project would have been more cohesive covering many aspects of food sustainability as the *National Geographic* magazine did.

2. **What are the starting-point stories?** — Like a good news lede, the initial stories set a tone or an operatic overture for what will come after. Here the NGS performed very well,

introducing the project and its scope on every channel. The flagship piece in the May 2104 issue of *National Geographic* was an excellent introduction.

3. **Who are the key publics for each story?** — Here one should think in great detail about who can best use the information from individual stories or their extensions. Are they young? Old? Rich? Poor? Do they play games? Liberal? Conservative? Are they policy makers or voters? Do they hunt or fish? Cook or play chess? Are they named Etaoin Shrdlu? One should "talk" to them through the stories. Most good journalists have a reader in mind as they write, photograph, produce or edit.

4. **What media channel would best reach those publics?** — This also requires specific and detailed research using, if possible, the demographic and audience research databases used in advertising. Identify in very specific detail, what media channels are most likely to reach the publics that can best use the information gathered. Partnerships will likely be necessary to get those stories published, and agreements that are beneficial to both transmedia producer and publisher are possible.

5. **What media forms will best tell the story?** — One should think critically here about what works, not simply what one is most confident producing. Text is best for context. Video tells powerful stories that have a strong narrative arc and puts the flesh on characters better than almost any other form. Still photos isolate discrete moments. Audio engages the imagination. Games describe systems. Artifacts connect. Illustration accesses the camera-inaccessible. The channel necessary to reach one's public may create a limit on the possibilities here. If necessary, channel could be revisited in light of the best form for the story.

6. **What genre, length or structure will best serve a story's public?** — Different channels encourage different levels of engagement. A *New Yorker* reader flips open the cover

expecting a 10,000-word story, but a *Vice* reader might expect a quick short-form video. One should provide content that appeals to attention spans that may vary from 30 seconds to two hours. Most journalists are comfortable selecting the appropriate genre for a story, however, much may be learned from the demographic study of the target public. Stories should be produced for the reader, not for the journalist him- or herself.

7. **How should these stories interconnect?** — The network one builds is the key to good transmedia storytelling. Carefully plan what stories will interlink. Are they hot-linked in digital spaces? Referred to in analog spaces? Are source materials and external content available with a click to provide transparency? This planning could extend to the design of a reader's investigative path through the project either as a trail of breadcrumbs or with a more gameful quality if desired. Whether the public follows that path or not, the design will only improve project structure.

8. **How can these stories be conversations?** — Though comment blocks on digital stories are common, they alone do not make for a conversational space. Engagement will increase, I argue, if the reporters and producers of a transmedia journalism project enter that conversation with responses and updates. Public contribution should be enabled in the project, allowing engaged readers to help build stories. This will increase their ownership in the story and their engagement, and it will enable more transparency and a multi-perspective view on the subject. These spaces cannot be left journalistically unattended, though. Public contribution should face the same editorial rigor as the contribution from contracted journalists, or the space should be clearly identified as amateur production.

Next Research Steps

This dissertation forms the base for a series of research projects intended to better analyze and model transmedia storytelling, particularly in a journalism context. This structural study will ideally be followed by a study of user engagement and a study of the additive comprehension effects of transmedia engagement.

If given access to user engagement data from a complex transmedia project (journalism or not), it may be possible to definitively determine, how, when and perhaps why one would move through a networked series of stories. By linking data on analog media with the more easily accessible data from digital media, can we learn how the public moves through these story networks? My hypothesis here is that a small (single digit) percentage of audience may engage with multiple pieces of the story, emphasizing the need of producers to target valuable publics for each story. This study, combined with the above, would complete a thorough ANT-based understanding of transmedia story networks.

Once the understanding of how the network operates is fully formed, I would like to compare the knowledge gain from a transmedia story to more traditional journalism production to test Neil Young's concept of "additive comprehension" (Jenkins, 2006, p. p.123). Does the public learn more or more thoroughly when transmedia techniques are used? My hypothesis here is that when a reader engages with more than one piece of documentary information on a subject in more than one channel and over a short period of time that the depth of learning increases. Recent study of transmedia learning supports this hypothesis (Herr-Stephenson & Alper, 2013; Raybourn, 2014; Warren, Wakefield, Jenny S., & Mills, Leila A., 2013).

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"-30-," or "###," or "ENDIT" are the marks that close a news story before it is sent to an editor for polish and publication. However, every journalist knows these marks are not truly the end of the story. More often than not these tags are applied when time has run out rather than when the story is really finished. As D.W. Harding (1963, p. 166) wrote, "The most important thing is not what the author, or any artist, had in mind to begin with but at what point he decided to stop." It is time for me to stop. My time has run out. But as with any transmedia story, this work will continue in other forms and on other channels over time. Narrative structures have changed.

Though journalism industry attention has focused on technology and single-channel multimedia storytelling as silver bullets to save a 19th- and 20th-century storytelling structure, other media industries have adopted transmedia storytelling as one answer to a diverse, dispersed and dilettante mediascape. Aware that engaging stories have always moved across media and found new ways to be told, these industries have designed transmedia projects to make the inevitable more efficient. With the National Geographic Society's *Future of Food* project this strategy has a foothold in the dogmatic and traditional industry of journalism. By expanding these practices journalists, I argue, can better reach specific and critical publics with important information, engage those publics longer and more deeply with often complex subjects, better represent a diversity of perspectives and crack more personal filter bubbles. To do this in the 21st century requires a fundamental change in the way we perceive how our stories move through the mediascape and how they are used by the public. We can't will the 20th century back into existence, even with a better mobile app. Above all else we journalists hope to better inform the

democracy and fuel needed social, environmental and institutional change. As Edward Steichen,

one of the greatest photographers, curators and editors of the 20th century, said at his 90th

birthday celebration, "The mission of photography is to explain man to man and each man to

himself. And that is no mean function." (Morris, 2005)

It is likewise for journalism.

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