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NICHES IN THE NETWORKED MEDIA ECOSYSTEM: FUNCTIONALITIES, GRATIFICATIONS, AND A TYPOLOGY OF ONLINE NEWS AND INFORMATIONAL MEDIA

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NICHES IN THE NETWORKED MEDIA ECOSYSTEM: FUNCTIONALITIES, GRATIFICATIONS, AND A TYPOLOGY OF ONLINE NEWS AND INFORMATIONAL MEDIA

A DISSERTATION APPROVED FOR THE
GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION

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Table of Contents

Acknowledgements ..... **iv**

List of Tables ..... **x**

Abstract ..... **xii**

Chapter 1: Introduction **1**

Online Networks 5

Impacts of Online Networks on the Media Ecosystem 6

More choices, fragmented audience & increasing expectations 6

User control 8

Increasing challenge to categorize online media 9

Changing market structure & uncertainty over the media business model 10

A Potential Research Direction 12

Summary of the Problems and Outline of the Purpose of the Study 14

Chapter 2: The Changing Media Ecosystem **18**

Ecosystem 21

Shift in Media Ecosystem 23

From top-down to horizontal flow of information. 23

Feedback 24

From few to countless media. 25

Decreasing value of media content. 25

From mass to fragmented audience. 26

Network 27

Online Networks and the Society 29

Functions of the Internet and the Forces that Created It 31
Media in the Networked Ecosystem 34
Summary of Chapter 2 37
Chapter 3: Web Typology—A Conceptual Framework 41
Existing Web Typologies 43
Synthesis of the Literature on Web Typology 52
Content Creators 56
Functionalities 59
Functionalities of Content Creators: Towards A New Typology 69
Functionalities of Mainstream media. 70
Functionalities of Institutional media. 72
Functionalities of Alternative media. 74
Functionalities of User-generated media. 75
Summary of Chapter 3 78
Chapter 4: Media Uses, Theoretical Framework, ... 79
Hypotheses & Research Questions 79
Why People Use Media 82
Media system dependency (MSD). 82
Uses and gratifications (U&G). 84
New Opportunities in the Changing Media Ecosystem 88
Uses and Gratifications of Online Media 90
The Theory of the Niche 95
Research Problem, Hypotheses and Research Questions 102

Hypotheses 104
Research Questions 106
Chapter 5: Methods 110
Method for Study 1: Content Analysis 113
Rationale and procedures for selecting websites 114
Sampling: Constructed week. 118
Choosing the days 118
Choosing the stories 118
Measurements 119
Coding.. 130
Method 2: Survey 132
Sampling and survey execution. 134
Measurements 136
Finding the Position in the Ecosystem 137
Niche-breadth. 138
Niche overlap 139
Competitive superiority 140
Summary of the Chapter 141
Chapter 6: Results (Content Analysis) 143
Measures 144
H1—Results. 145
H2—Results. 150
H3—Results. 155

H4—Results. 159
Findings in Relation to the Proposed Typology 162
Primary functionality of the Mainstream media 163
Primary functionality of the Institutional media 164
Primary functionality of the Alternative media 164
Primary functionality of the User-generated media 165
Connection to the Theory of the Niche 166
Summary of the Chapter 167
Chapter 7: Results (Survey) 169
Sample Demographics 170
Measures 172
Niche breadths 173
Results—RQ 1a to 1d 173
Differences among Media Types on Gratifications 176
Results—RQ 2a 177
Differences among Media Types on Gratification Opportunities 185
Results—RQ 2b 185
Niche Overlap 188
Results—RQs 3a to 3f 189
Niche Superiority 192
Results—RQs 4a to 4f 193
Audience Perceptions of Online Media Niches 197
Niche of the Mainstream media. 197

Niche of the Institutional media 198
Niche of the Alternative media..... 199
Niche of the User-generated media 200
Summary..... 201
Chapter 8: Discussion..... 203
Content Analysis: Online Media as Intended by Content Creators..... 206
Extent to which content analysis findings are similar to existing research. 211
Extent to which findings are different from existing research 214
How the content analysis extends previous studies..... 216
Survey: Gratification Niches of Online Media as Perceived by Users 218
Extent to which survey findings support and extend existing scholarship..... 220
Survey and the theory of the niche. 223
Building the Networked Media Ecosystem: Populations and the Niches 224
Niche of the Mainstream media 226
Niche of the Institutional media 228
Niche of the Alternative media..... 229
Niche of the User-generated media 231
Practical Implications 232
Contribution of the Study 234
Limitations and Suggestions for Future Studies..... 236
Conclusion..... 238
References 242
Appendices 287

List of Tables

Table 1: Summary of differences between mass and networked media …… 39

Table 2: Functionalities of online news and informational content and their dimensions…… 68

Table 3: Primary and secondary functionalities of online news and informational content creators ……..... 77

Table 4: List of gratification expectations from online media …… 94

Table 5: List of websites analyzed ..…….. 115

Table 6: Operationalization of "To Inform" 121

Table 7: Operationalization of "To Persuade" …… 123

Table 8: Operationalization of "To Mobilize" …… 127

Table 9: Operationalization of "To Self-present" ……... 129

Table 10: Inter-coder reliability (Cohen's kappa values) ……... 132

Table 11: Inform function by media type ……... 146

Table 12: Persuade function by media type …… 151

Table 13: Mobilize function by media type …… 156

Table 14: Self-present function by media type ……... 160

Table 15: All four functions by media type …… 162

Table 16: Comparison of sample demographics ……. 171

Table 17: Niche breadths: Media type by gratifications and gratification opportunities …… 174

Table 18: Gratifications means by media type …… 178

Table 19: Gratification opportunity means by media type …….. 186

Table 20: Niche overlap between media types ……... 190

Table 21: Niche superiority on gratifications by media type ……. 194

Abstract

The digital technologies and the Internet have transformed the media ecosystem from mass into networked (Castells, 2009; Chaffee & Metzger, 2001; Lowrey & Gade, 2011). Before the rise of the Internet, a small number of media organizations produced content for the mass audience and controlled mediated communication. The networked media ecosystem has numerous online media outlets, and cannot be controlled by the media organizations or content creators alone. Online media users, who are also able to create and publish content online, play an important role in determining how content is produced and consumed online (Mitchell, 2014; Tewksbury & Rittenberg, 2012). Making sense of this changing media ecosystem has remained a challenge for scholars and media firms.

This dissertation defines the networked media ecosystem, particularly the domain of news and information, by examining the perspectives of both content creators and users. Guided by the Theory of the Niche (Dimmick, 2003), the dissertation created a framework that explains how numerous online news and informational media position themselves in the networked media ecosystem, and how the users perceive these media types fulfill user needs. The dissertation proposed a typology of online news and informational media, based on who create news and informational content. The typology has four media types—the Mainstream media, the Institutional websites, the Alternative media, and the User-generated media. The typology was tested through a content analysis that examined 700 units of content with 175 units from each media type. The data support the typology substantially, except in the case of the Institutional websites. The content analysis found a primary functionality

of three media types—Mainstream media, Alternative media, and User-generated media. The data did not find the primary functionality of the Institutional websites. The content analysis also identified the extent to which the media types are similar and different. It is worth noting that the typology does not account for social media.

To understand the user perspectives, the dissertation conducted a national survey (N=1103) of the residents of the United States who use Internet. The survey examined the extent to which four media types, as perceived by users, provide a range of gratifications and a range of gratification opportunities (Dimmick, 2003). The data identified niche breadth of each media type, niche overlaps among the media types, and superior media type on each gratification dimension.

Taking both studies together, the dissertation begins to explain the domain of news and information in the networked media ecosystem. The dissertation demonstrates that each of the four types of online news and informational media carved out a position in the networked media ecosystem, which was once dominated by a few mass media organizations. The results indicate strong competition in the market of news and informational media. However, the media types appeared to be differentiating their niches, which would enable them to coexist in the same ecosystem.

Chapter 1: Introduction

Anecdote 1: On November 20, 2014, President Barack Obama addressed the nation to unveil his immigration reform plan, the "biggest piece of immigration reform" since he took office in January 2009 (Walker, 2014, para. 2). In a rare move that drew attention of media pundits, four major broadcast networks—*ABC, NBC, CBS* and *Fox*—refrained from airing the prime-time speech. The networks aired their prescheduled entertainment shows during the speech ("Broadcast networks opt out," 2014). News reports suggest that White House officials, who knew in advance that the broadcast networks were reluctant to air the speech, did not formally request the networks for airtimes either ("Broadcast networks opt out," 2014). The White House streamed the speech live on its own website. Some commentators say that Obama was able to reach his target audience as the speech was aired by cable networks (e.g., *CNN, Fox News, MSNBC*) and the leading Spanish language broadcast networks such as *Univision* and *Telemundu* (Walker, 2014).

Anecdote 2: On February 10, 2015, three students were shot dead in an apartment near the University of North Carolina at Chapel Hill. All three victims were Muslims. Within hours since the shooting took place, two hashtags on Twitter (#MuslimLivesMatter and #ChapelHillShooting) became popular spreading the news. Colin Daileda on *Mashable* noted that #ChapelHillShooting was already retweeted 600,000 times at the time he was writing his story about the shooting (Daileda, 2015). Many social media users were criticizing the mainstream media for not acting fast enough to cover the incident. However, as "the hashtags began to gain traction on Twitter, media coverage began to pick up" (Daileda, 2015, para. 3). Ibrahim Hooper,

communications director for the Council on America-Islamic Relations, alleged that media had previously failed to pay attention to the killings of Muslims in the United States (Daileda, 2015). Some commentators expressed doubts that the mainstream media would not cover the incident had it not trended on Twitter (Elmasry, 2015; Mir, 2015).

These two events demonstrate some big changes in the media ecosystem that is defined by interactions between social organizations/institutions, media and people in a particular society (Scolari, 2012). A few media organizations would connect the audience with organizations in the mass media ecosystem that began to change with the advancement of digital media in the last decade of the 20th century. Traditionally, requests to broadcast presidential speeches used to be "essentially always granted" by televisions ("Broadcast networks opt out," 2014, para. 6). The decision to skip the November 2014 presidential speech signals a change in the relationship among the components of media ecosystem (e.g., news media, powerful source of information and the audience). Calmes (2013) wrote, "In the second half of the 20th century, word that the president would address the nation made Americans stop and listen" (para. 7). But in the early 21st century, "the Internet revolution and advances in television technology have changed presidents, citizens and the broadcasters who traditionally connected the two" (para. 8). A *CNN* news commentary suggests that the choice to skip Obama's immigration speech "exemplifies a waning commitment to serious news coverage at the networks" ("Broadcast networks opt out," 2014, para. 16). The commentary also suggests that the decision might have been taken because of declining viewership of prime-time presidential addresses (Calmes, 2013). Live streaming by the White House

and its reluctance to request television networks for airtime suggest that media organizations are not exclusive distributors of information anymore. "Americans have myriad choices for entertainment and information" (Calmes, 2013, para. 9). The Chapel Hill Shooting incident highlights another aspect of the changes in the media ecosystem, which is the power of users. Turning to Twitter to share the news about the Chapel Hill shooting, users show their ability to create and distribute news and information in addition to just consuming it.

The Internet and advances in communication technologies are transforming the media ecosystem from mass to networked (Castells, 2009). The traditional mass media ecosystem comprised few media organizations disseminating messages to mass audiences. In the early 21st century, the media ecosystem became crowded with numerous media disseminating messages to relatively smaller audiences as abundant media choices fragmented the audience (Chaffee & Metzger, 2001; Lowrey & Gade, 2011; Webster & Ksiazek, 2012). A lot of uncertainty persists as traditional media compete with numerous non-traditional media to secure niches in the media ecosystem (Dimmick et al., 2011; Lowrey & Gade, 2011). However, little knowledge exists about how these countless media position themselves in the networked media ecosystem.

Mass media era studies that explore strategic or operational problems of media enterprises, and conducted primarily in the field of media management, tended to focus on the content creators as the audience had little control over media content. Little research focused on users who might influence the decision of the content creators (Napoli, 2011). As technologies removed the entry barriers to the media ecosystem and empowered the audience (Bruns, 2009), it is no longer enough to define the media

ecosystem from only content creators' perspectives. Any study seeking to map out the networked media ecosystem must take both content creators and the audience into consideration. Küng (2008) suggests that little research was done in the area of strategic management of media that examines the relationship between media organizations and components of their external environment (e.g., users).

The central problem of this dissertation is to define the networked media ecosystem, which needs a thorough exploration of the perspectives about the ecosystem from both content creators and content users. Defining this ecosystem requires two explorations: one is to understand how content creators seek to position themselves in the ecosystem, and the other is to understand how the audience perceives the place of the content within the ecosystem. Understanding only content creators' perspective is not enough because their control over the content has reduced to a considerable extent because of digital technologies. There is even no clear definition of who a content creator is (Bruns, 2009). Now, the audience has abundant choices. Users are able to create content and choose to consume what they want (Mitchell, 2014). Users' ability to choose can determine positions of content in the ecosystem. If there is no audience, the content does not exist in the ecosystem (Dimmick, 2003). Therefore, this study seeking to define the networked media system proposed to explore the perspectives of both content creators and users.

An overview of online networks, impacts of the Internet and advances in communication technology on the media ecosystem, and an ecological perspective on how different media entities position in the media ecosystem provides a better picture of this problem.

Online Networks

The Internet and digital technologies have created an unprecedented phenomenon in the history of human communication, called the online network (Castells, 2009). Castells refers to the online network as a form of social structure in which activities are organized around electronically processed information networks. Online networks can often be global, as individuals or organizations from different parts of the world usually constitute networks (Castells, 2009). Networks are "dynamic, open-ended, flexible, potentially able to expand endlessly, without rupture" (p. 409). Bell (2007) characterized online networks as "horizontal, non-hierarchical, fluid and mobile" (p. 63), in which information flows side-to-side (Gade & Lowrey, 2011).

With the rise of global online networks that removed the constraints of time and space, human beings entered a new phase of connectivity (Hunter, 2008; Rheingold, 2000). Individuals and organizations from all over the world can connect and interact with others using digital devices connected to the Internet (Friedman, 2006). Individuals can also develop and maintain social relationships using these global online networks (Castells, 2009). Online networks are rendering national borders of less significance. They are merging cultures (Gade, 2011). Sinclair (2004) wrote that individuals now "see themselves in, and adapt to, a global context, regardless of where they are" (p. 67).

In networks, information flow is not unidirectional as was the case in the mass media system (Hess, 2014). Network members can share content with others in the network (Castells, 2009; Lowrey & Gade, 2011). Organization of networks is issue-centered: individuals get connected on the basis of common values and goals (Stalder, 2006). Networks are not static either, as members continue to negotiate their relative

positions based on their interests. Stalder (2006) stated that online networks are different from traditional social networks. In traditional social networks, communication is relatively sparse and relationships among the elements are restricted and formal. On the other hand, online networks are open and relationships are flexible and informal. Communication also tends to be frequent, timely and continuous. The growth and goals of online networks are not limited by the complexities of coordination like was the case in traditional hierarchies. Online networks allow an unprecedented level of interactivity that freed people from "the straitjacket of hierarchical documentation systems" (Berners-Lee, 2000, p. 21). Interactivity refers to users' ability to influence the content and form of the mediated communication. In the networked environment, life becomes increasingly postmodern, which refers to "a fast pace of life, technological innovation, constant change in social tastes and trends, consumerism, increasing reliance on media, globalization, multi-culturalism, relativity, and logical inconsistency" (Gade, 2011, p. 63).

Impacts of Online Networks on the Media Ecosystem

As society becomes increasingly networked and social networks are largely mediated by the Internet, the media ecosystem has begun to transform (Yang, 2006). Results of this ongoing transformation include abundant media choices, fragmented audience and increasing audience expectations. Online networks empower users and reduce control of traditional mass media organizations over media content. The media's business model is also changing. This section briefly discusses these changes.

More choices, fragmented audience & increasing expectations. The networked media offers "a virtual library of information and a news-on-demand

marketplace" (Lowrey & Gade, 2011, p. 3). Online networks enable everyday citizens, organizations and institutions (e.g., businesses and governments) to create and disseminate messages directly to the target audience, resulting in countless media in the media ecosystem. Users' ability to create and disseminate content blurred the differences between producers and consumers (Craig, 2011; Gade & Lowrey, 2011; Gillmor, 2004). From 1993 to 2012, the number of websites jumped from 130 to more than 600 million, in addition to continued growth of social media (Bennett, 2013). As of March 2015, the number of websites jumped to over 917 million (Internet Live Stats, 2015). A 2005 study by the Pew Internet & American Life Project found that more than half of online teens created content for the Web (Lenhart, Madden & Hitlin, 2005). A 2015 Pew Research Center report suggests that nearly two-thirds (65%) of adults in the United States were using social networking sites such as Facebook, Twitter and Google+ (Perrin, 2015, October 8).

As more media choices are available for Internet users, media consumption patterns become more widely distributed (Webster & Ksiazek, 2012). Users in the networked media environment are "fragmented, partisan, and specialized" (Lowrey & Gade, 2011, p. 2) as technologies enable and encourage individuals to create and consume media to pursue their specific needs and interests (Dimmick et al., 2011; Lowrey & Gade, 2011, p. 2; Napoli, 2011). The Internet, home to a wide variety of networks and media, has also increased audience expectations that mass media could not gratify (Dimmick et al., 2011). Such expectations include ability to participate in content creation, interaction, maintenance and development of relationships (Chen, 2011; Hanson & Haridakis, 2008; Park, Kee & Valenzuela, 2009). With increasing

choices, users expect media to gratify their existing values and predispositions. Earlier, Chaffee and Metzger (2001) noted, "The explosion of available channels afforded by the new technologies contributes to the demassification of the media by diffusing the audience for any particular media product" (p. 369).

In addition to more media choices, the networked environment provides an unprecedented level of gratification opportunities (Dimmick et al., 2011). Three elements define these: (1) available content choices, (2) variety of time periods in which the content is available, and (3) number of spatial locations in which content is accessible (Dimmick et al., 2011, p. 180). In the mass media ecosystem, content choices were few. For instance, only three television networks dominated the US broadcast market for several decades. There were relatively fewer varieties of time periods when the content was available and fewer spatial locations where the content was available. In terms of choices, time and spatial locations, the Internet and new technologies provide an unprecedented level of gratification opportunities. Individuals can consume news and information anytime (time), anywhere (spatial locations) "in any modality—audio, video, graphics or text" (content choices) (Dimmick et al., 2011, p. 177).

User control. Along with an abundance of choices, the ability to create, publish and interact with other content creators provides users with considerable control over media content (Gillmor, 2004, 2006). In the mass media ecosystem, actors (e.g., powerful social institutions and few media organizations) standing at a higher level of a social hierarchy had determined what content would be disseminated to the citizens who stand at a lower level of the hierarchy (Entman, 2004). In the networked ecosystem in which people are members of Internet-mediated networks, users enjoy an

unprecedented level of control over media content. On a *CNN* interview, former Pew Research Center president Alan Murray noted that media must give people what they want ("How much is," 2014). "Consumers have lots of choices. So they can choose to consume the news they want to choose. Editors don't get to decide anymore what people consume. People are choosing for themselves" ("How much is," 2014, mins. 2:11-2:22). Users are able to provide immediate feedback to media content in many different forms, including comment, blogs or social media posts. Audience ratings of news (e.g., most-viewed news) and content have significant influence on how media organizations select content to publish (Mitchell, 2014). Some observers suggest that the pursuit of better audience ratings led four major television networks to skip Obama's immigration speech in November 2014 ("Broadcast networks opt out," 2014). Audience ratings for prime-time presidential addresses declined over time (Calmes, 2013).

Increasing challenge to categorize online media. Numerous content creators, often with overlapping motives make categorization of online media increasingly challenging. Categorization is a primary means of comprehending complex systems (Lakoff & Johnson, 1980, p. 122). Traditional categorization schemes, used in media management scholarship, are based on geographically-defined mass audiences (e.g., national, regional, local media) or the technology used to deliver messages (e.g., print media, electronic media) (Albarran, 2010; Noam, 2009). Removal of territorial contiguity by online networks and convergence of communication technologies made it necessary to redefine the bases of media categorization schemes (Wilkinson, Grant & Fisher, 2013). Scholars sought to categorize online media but most of those categories

provide either a cursory or partial view of the Internet (e.g., Deuze, 2003; Hess, 2014; Cambell et al., 2014; Weber & Monge, 2011). No existing categorization scheme of online media covers the entire Web. Studies that applied ecological perspective to online media considered all online media members as being a single population and compared them with other populations such as televisions or print media (e.g., Dimmick, Chen & Li, 2004; Dimmick, Kline, & Stafford, 2000; van der Wurff, 2011).

Changing market structure & uncertainty over the media business model. The changes in the media ecosystem have significant effects on existing media business models. Media organizations have moved from monopoly or oligopoly to competitive markets, in which the number of content producers is large (Lacy & Sohn, 2011). In a competitive market, "No individual firm finds itself able to influence the commodity's price by varying the quantity of output it sells" (Scherer, 1980, p. 10) as in the case of monopoly. Gade and Lowrey (2011) wrote, "In the era of digital media, the news media's market leverage and economies of scale, and the organizational and journalistic routines that produced efficient production and distribution, have been shattered or fundamentally redefined" (p. 27).

Advertising revenue of legacy media is shrinking (State of the news media, 2013). Newspapers' advertising revenue in 2012 was down to 22.3 billion from 49.4 billion in 2005 (State of the news media, 2013). Compared to this loss, gains through online subscriptions and digital advertisements are small, according to the State of the News Media 2014 report. The report also stated uncertainty about the future of television advertising revenue as "video becomes more accessible online". Lowrey and Gade (2011) stated that online advertising revenues are not enough for newsroom

operations. Advertisers prefer media through which they can reach more specific target groups (Gordon, 2013).

The shift from mass to networked ecosystem redefines the value of media content (Chyi & Yang, 2009; Hindman, 2011; Holcomb, 2014; Gade & Lowrey, 2011). Internet users do not value content produced for the mass audience as much as the audience did in the mass media era. On the Internet, users search out content that interests them (Tewksbury & Rittenberg, 2012). Therefore, specialized content that pursues individualized interests may become more valuable in the networked ecosystem (Webster & Ksiazek, 2012). Also, as free alternatives are readily available, many people expect online content to be free (Chyi & Yang, 2009; Hindman, 2011; Gade & Lowrey, 2011). According to a 2014 poll by YouGov, half of British children aged between 8 and 15 believe that online content should be free and downloadable (The Future of Digital Consumption, 2014).

Online-only media organizations are growing faster than the online ventures of legacy media (e.g., websites or apps of legacy media) (The Future of Legacy Media, 2014). Although recent surveys show that the number of individuals who seek news and information online is increasing, legacy media websites are falling behind online-only platforms in terms of traffic growth (Dimmick et al., 2011; Jurkowitz, 2014). According to data provided by comScore.com, an Internet analytics company, visitors of online-only media tripled from March 2013 to March 2014 when legacy media outlets saw slower traffic growth, with CNN growing 37% and the *New York Times* 15% (Fischer, 2014). In a 2014 report, research and consulting firm Borrell Associates claimed that legacy media would neither be able to protect their existing audience base, nor reach out

to new customers with their current policies that consider the Internet as an extension of mass media (Grubisich, 2014). The Borrell Associates report predicted that digital media would not completely replace legacy media. "While their clout may continue to diminish, it is unlikely that any will disappear" (The Future of Legacy Media, 2014, p. 7).

In brief, the networked media ecosystem consists of numerous media and offers users more content choices than ever. It has changed what users expect from media and how they consume media content. Users seek more specialized content that pursues their individualized interests than the content created for the mass audience. Much uncertainty persists, as there is not enough systematic knowledge about how it is possible for that many media to position themselves in the media ecosystem.

A Potential Research Direction

Long before the rise of the Internet, scholars began to explore how old media adapt when new media emerge. The emergence and growth of cable television channels and specialized magazines in the 1980s prefaced the specialization seen on the Internet (Dimmick, 2003). John Dimmick, a young scholar in the early 1980s who saw the beginnings of the end of mass media and growth of specialized media, developed the theory of niche to explore how new media position themselves in the changing ecosystem and how old media adapt (Dimmick, 1985). The theory of niche, an ecological theory originally developed in the field of biology, has been applied to several studies seeking to identify positions of media in the media ecosystem (e.g., Dimmick, Patterson & Albarran, 1992; Dimmick, Kline & Stafford, 2000; Li, 2001).

This ecological perspective can be useful to address the problem—defining the networked media system—in this dissertation. To understand how numerous online news and informational media position themselves in the ecosystem. "Media ecology has become consolidated as an innovative and useful theoretical framework for media studies" in the first decade of the 21st century (Scolari, 2012, p. 204). Researchers have used ecological frameworks to explore continuous and big changes in both biological systems and media markets (e.g., Dimmick, 2003; Jordán & Scheuring, 2004; Scolari, 2012; van der Wurff, 2011). The next section briefly highlights how an ecological perspective can address changes in the media ecosystem.

An ecological perspective. An ecological perspective examines how various populations position themselves in an ecosystem and how they coexist while competing for scarce resources. Dimmick (2003) applied this perspective, known as the theory of niche, to explore how various media populations (e.g., television, print, radio, Internet) position themselves in the media ecosystem. Dimmick developed several concepts (e.g., niche breadth, niche overlap & competitive superiority) and measures to examine positions of media populations in an ecosystem and the extent to which they compete with one another (Dimmick, 1985; Dimmick & Rothenbuhler, 1984).

This perspective suggests that it takes two tasks to make sense of any big change in the media ecosystem: (1) identifying media populations (both old and new) and, (2) identifying their positions in the ecosystem. It also suggests that neither content creators nor users can unilaterally decide media's positions (Dimmick, 2003). Dimmick (2003) notes that media depend on resources such as audience time, audience money and advertisement money to survive in the ecosystem. The extent to which a media outlet

gains these resources primarily depends on user perceptions about the gratifications that the media outlet provides. Dimmick defined gratifications as fulfilling needs of the audience (e.g., information seeking, entertainment and interaction). When multiple media populations compete in the ecosystem, they differentiate their roles in which one type of media is perceived to be providing some gratifications better than others. For example, some online news and informational media may offer higher degrees of interactivity with users than others. Also, some media may be accessed more easily than others. For example, a mobile device such as smart phone can be accessed more easily than a television set.

Media ecologists view the emergence of new media as ecological succession (Dimmick et al., 2011). Until the late 1920s, the newspaper was the most popular media. However, the arrival of radio, followed by broadcast television, cable and then the Internet reduced newspapers' share of the audience and advertisements. To survive, each 'new' media had to establish competitive superiority over the existing ones in gratifying some needs of the audience (Dimmick, 2003). When a new media had invaded the niches of existing media, the latters would adapt to the altering environment and recreate their niche. For example, when television emerged and drove radio out of the living room, "the radio industry adapted to the new-found mobility and shorter listener attention span by instituting shorter program units" (Dimmick et al., 2011, p. 179).

Summary of the Problems and Outline of the Purpose of the Study

Internet-mediated networks is transforming the media ecosystem from the mass to the networked. The networked media ecosystem consists of numerous media,

abundant content choices and fragmented audiences. Online networks enabled users to create and disseminate content as well as choose what they want to consume. Users got unprecedented control over media content. Categorization of online media, particularly online news and informational media, is becoming increasingly difficult. Combined, this underlines a need to redefine the media ecosystem and explore how numerous news and informational media outlets position themselves in this media ecosystem.

The key goal of this dissertation is to describe the domain of news and information in the networked media ecosystem by exploring the perspectives of both content creators and users. It is no longer enough to define the media ecosystem without considering the perspective of the users who have considerable control over online media content. To achieve this goal, this study proposes two explorations—one is to examine how the content creators position themselves in the media ecosystem and the other is to understand how users perceive the position of the content in the ecosystem.

These explorations, however, require a categorization scheme of online news and informational media, as existing categorization schemes do not cover the entire Web. As the ecological perspective suggests, it is necessary to have a categorization scheme that identifies the major categories of media and then explore their positions in the ecosystem. Therefore, through this dissertation, the researcher first creates a categorization scheme for online news and informational media and then performs two studies to examine the positions of the content from the perspectives of both content creators and users. The categorization scheme identifies various populations of content creators. The scheme does not include social media.

Contribution of the study. This dissertation contributes to media, scholarship and society in several ways. It provides value by presenting some less abstract and more concrete data about what different online news and informational media attributes are, and how audience members respond to them. Media organizations can see if the attributes of their content fit with the niches they seek to carve in the ecosystem. The study provides evidence telling media organizations where the opportunities are. It helps identify core competence (resources and capabilities "that serve as a source of competitive advantage for a firm over its rivals") and build competitive advantages defined as "formulation and execution of strategies that are different from and create more value than the strategies of competitors" (Hoskisson, Hitt & Ireland, 2012, p. 405).

The dissertation also adds to the media management and economics literature, particularly to the field of strategic media management—an important but largely underexplored area (Küng, 2008). Küng calls strategic management of media "an embryonic field" that needs development (p. 2). This study bridges strategic management theories and the practices of online media. It advances a typology of online news and informational media content that may have long-term impact on media management scholarship. By identifying the differences and similarities of various online news and informational media, this dissertation also contributes to society, as people will be able to make better media choices that are more consistent with their needs and interests.

To put the research problems into context, the researcher needs to explore several ideas. This proposal begins by exploring the changes in the media ecosystem.

Chapter 2 defines the ecosystem, identifies major components of an ecosystem, and explores how the assumptions of a networked media ecosystem differ from that of the mass media ecosystem. Chapter 2 also discusses the characteristics of networks and explores how online networks affect the media system. It explains how content is disseminated and used in the networked media ecosystem. Chapter 3 proposes a typology of online news and informational media. The categorization follows literature reviews on online media typologies and media functionalities that identify various forms of Web content and their functionalities. Chapter 4 reviews the literature on gratifications that users receive from various online media. After that, the theoretical framework is discussed followed by a set of hypotheses and research questions. Chapter 5 explains the methods for the two studies with one exploring how the content creators position themselves in the media ecosystem and the other examining how users perceive the position of the content in the ecosystem.

Chapter 2: The Changing Media Ecosystem

As identified in the opening chapter, digital technologies have increased the number of media living in the media ecosystem. The Internet keeps growing with more and more websites being launched every day, while traditional media make adjustments to cope with the networked media ecosystem (Lim, 2005; Lowrey, 2006). Digital technologies also empowered the audience to an unprecedented degree (Gillmor, 2004, 2006). They are able to influence the position of online media in the media ecosystem. However, there has been no systematic effort to define this networked media ecosystem or to understand how different media position themselves in the ecosystem. Traditional research mainly focuses on the content creators. But defining the media ecosystem from only the content creator's perspective is not enough given the power of the audience in the networked era. Also, the vast amount of online news and informational content remains uncategorized although many scholars stressed and attempted to categorize the online media (Campbell et al., 2014; Deuze, 2003). This dissertation seeks to define the media ecosystem by exploring the perspectives of both content creators and users. It also characterizes and categorizes online news and informational media as a basis to understand how people use these and the gratifications they seek and obtain from it (Dimmick, 2003). The purpose of the study is to understand how various online news and informational media position themselves in the networked media ecosystem.

Rooted in biology, an ecosystem refers to a community of interdependent organisms or entities interacting as a system within an environment (Molles, 1999). Interdependency between media, citizens, organizations and other social entities constitutes an ecosystem existing in an environment created by communication

technologies (Scolari, 2012). Since the early 1980s, the media ecosystem has been rapidly changing as the Internet and digital technologies facilitate more direct interaction among the entities (Kopper, Kolthoff & Czepek, 2000). In the mass media system, there were fewer media organizations that would disseminate messages to a mass and homogeneous audience (Chaffee & Metzger, 2001). Members of the audience were usually passive, and would consume content in ways a few media outlets had intended. Information was relatively scarce and used to flow one way from media to the audience. Organizations and powerful social entities would rely on mass media to reach a large audience. Average citizens would hardly get their voices heard. Such a media ecosystem is characterized by mass communication. In the networked media ecosystem, almost everybody can be a publisher. The number of media organizations is numerous and information flows horizontally and in multiple directions (e.g., citizens to citizens, citizens to elites, citizens to media organizations). Audience members are usually active and information is abundant (Chaffee & Metzger, 2001). Networks, facilitated by advanced technologies, characterize the media ecosystem in the changing environment (Heinrich, 2011; Lowrey & Gade, 2011).

The networked media ecosystem that represents a global network comprising numerous interconnected networks worldwide is the outcome of several creative forces (Friedman, 2006). Nearly three billion individuals from across the world are integrated into the Internet-facilitated networks (Castells, 2009; Internet Live Stats, 2014). A January 2014 survey found that 87% of American adults use the Internet (Internet Use Over Time, 2014), which enables people to communicate and collaborate in real time regardless of their geographical locations and the distances among them. Average

citizens can share ideas with others from nearly anywhere in the world, often using personal mobile devices such as smart phones. The networked media ecosystem allows individuals, institutions and other social entities to directly interact with each other and act as agents of interactive networks formed on the basis of shared interests and goals. Advanced technologies allow individuals to create and disseminate content as well as access content others shared on the Internet (Friedman, 2006). Everybody is a potential publisher on the Internet while consumers of news and information act like hunters, gatherers and sharers of the news and information that interest them (Gade & Lowrey, 2011).

The networked environment has resulted in countless media publishing a wide variety of content accessible from across the world. It also offers new gratification opportunities as emerging media tend to differentiate themselves with their unique functionalities (Dimmick et al., 2011). Organizations, social institutions and other social entities employ new strategies to communicate with targeted groups of people (Campbell, Cohen & Ma, 2014; Hollifield, 2011). Audience members respond to the changed environment by customizing their media use that enables them to consume media products that gratify their interests (Lacy & Sohn, 2011). The audience, once believed to be homogeneous under the traditional media system, is diverse, heterogeneous and fragmented (Dimmick et al., 2011).

This chapter explores the major components of an ecosystem and how the components interact in the system. It also explores how the networked media ecosystem and its assumptions about society differ from those of the mass media ecosystem. This will be discussed through an ecological theory in relation to literature on media

ecosystem. A discussion on the changing media ecosystem will follow. The chapter also discusses the characteristics of networks and explore how a networked environment is affecting the media ecosystem. The ultimate goal of this chapter is to understand various ways in which publishers disseminate online news and informational content and the audience consumes it.

Ecosystem

An ecosystem is a set of interconnected entities living within an environment. Any ecosystem can be defined by two primary components: (1) environment, and (2) interaction between the entities (Jordan & Scheuring, 2004; Logan, 2007; Molles; 1999). Arthur Roy Clapham, a botanist, coined the term ecosystem in the 1930s to refer to a biological system that consists of various organisms living in an environment (Logan, 2007; Scolari, 2012). The environment determines the amount of resources an ecosystem can produce for its populations from available energy (e.g., sunlight) and matter (e.g., Hydrogen, Carbon, Nitrogen etc.). Distribution of available resources determines the growth of various populations.

The discussion on the media ecosystem is rooted in the work of Marshall McLuhan in the early 1970s (Logan, 2007; Scolari, 2012). Media scholars interpreted this metaphor in two ways. First, media represent an environment that provides individuals with "new orientation for thought, for expression, for sensibility" (Postman, 1985, p. 10). Second, media are species that interact among themselves (Innis, 2003). McLuhan (2003) noted "No medium has its meaning or existence alone, but only in constant interplay with other media" (p. 43). In both of these interpretations, media were defined by technology in which print, film and audio were considered species.

This is evident in McLuhan's (2003) description: ''media interact among themselves. Radio changed the form of the news story as much as it altered the film image in the talkies. TV caused drastic changes in radio programming, and in the form of the thing or documentary novel'' (p. 78).

Logan (2007) suggested that media could be used in the strict biological sense and treated as living organisms. They can be considered as such because both media and biotic organisms evolve and compete in a similar manner. According to Logan's conceptualization of the media ecosystem, media are species that interact with and rely on other species. Logan noted "perhaps media ecology entails more than the interaction of media with each other but also entails the interaction of media with our biological nature as represented for example by our biological capacity for language and culture, the very first media of human nature" (p. 4).

An organism in an ecosystem is characterized by its dependency on resources, interaction with other organisms, competition, growth and differentiated functions (Molles, 1999). An organism reflects a population that consists of several members of the same species. For example, various types of media such as newspapers, magazines, radio, television and social media form the media population. All media depend on resources such as professionals, raw information, capital and revenue (Shoemaker & Reese, 1996). Growth of media, like organisms, depends on the environment and its productivity in which media live. The environment of the system results from interaction among entities. For every entity within a system, there is a place where it functions best and where it is interdependent on other features within the system (Abbott, 1988). The traditional mass media ecosystem, for instance, is characterized by

the existence of a few media organizations disseminating messages to a homogeneous audience. Most media markets had very little or no competition. With the rise of the Internet, the media ecosystem has shifted from being mass to networked in the 21st century. The next section discusses this shift and its implications.

Shift in Media Ecosystem

The shift from mass media to a networked media ecosystem is changing the way media interact with other entities in the ecosystem (Lowrey & Gade, 2011). In the traditional mass media system, the flow of messages is one-way—usually from the media to the audience. In the networked ecosystem, messages flow horizontally as anybody can be a publisher and reach a large audience. Audience members were barely able to provide feedback to media content in the mass media system. The networked environment is interactive in which publishers and users network in real time regardless of the distances between them. The number of media is increasing as the Internet and digital technologies lowered the cost of publishing and distribution of media content. Anybody can be a publisher on the Internet and, as a result, information is abundant in the networked environment. The audience, which was believed to be large and homogeneous in the mass media era, is fragmented and partisan in the changing ecosystem as they seek content that interests them.

From top-down to horizontal flow of information. Digital technologies are replacing the top-down or one-way model of information with a horizontal model. In the top-down system, information flows from the media and the traditional sources of authority to citizens (Entman, 2004). On the other hand, a horizontal model represents a networked and interactive system in which information flows side-to-side through

mediated networks (Gade & Lowrey, 2011). The top-down system is a centralized and hierarchical one in which actors standing at higher levels have more control over media content (Entman, 2004). In this system, media organizations collect raw information from various sources of authority, produce content out of that information and then disseminate it to a large audience that is considered a mass of largely similar people (Entman, 2004). Only authorized gatekeepers decide what will be disseminated to the audience. The horizontal model, characterized by networks, represents a decentralized information system, in which actors sitting anywhere in the network may create and disseminate content to the entire network. Media professionals rely on the Internet for raw information and ideas (Mitchelstein & Boczkowski, 2009) and content created by ordinary citizens and bloggers draw considerable attention (Kaye & Johnson, 2004).

Feedback. The shift from the mass media ecosystem to the networked media ecosystem is marked with enhanced ability of audience members to provide feedback to media content. The mass media ecosystem had allowed limited feedback from the audience (Craig, 2011). Newspapers would receive letters from readers but limited space permitted very few of them to be published. Broadcasters would air discussion with members of the public present or calling in but the participation was very limited (Craig, 2011). In the networked media ecosystem, any member of the audience can immediately provide feedback. Feedback comes in different forms such as comments, blogs, social media posts, conversation in online discussion forums as well as Web traffic data (Lowrey & Woo, 2010; MacGregor, 2007; Merrill, 2011). These forms of feedback may develop distinct voices and effectively bring audience members into a conversation (Craig, 2011). Jenkins (2006) stated that the "power of the media producer

and of the media consumer interact in unpredictable ways" (p. 4) in the changing media ecosystem. The new environment requires media to seek user feedback and citizen contributions to content (Singer, 2011).

From few to countless media. The mass media ecosystem had comprised relatively few outlets determining media offerings in geographically defined markets (Chaffe & Metzger, 2001). Competition among media entities ranged from low to none in some cases. The networked media ecosystem, on the other hand, allows almost everybody to create and disseminate content, resulting in countless media entities. In the changing media ecosystem, not only media professionals produce media content, but also users, organizations and powerful institutions such as corporations and governments (Lowrey & Gade, 2011). The Internet hosts about a billion publicly accessible websites (Internet Live Stats, 2014). More than 35% of adults and 57% of teens aged between 12 and 17 post their content online on a regular basis (Lenhart, 2006; Smith, 2014). Many traditional producers and publishers also offer additional online content channels (Goodman, 2014). Commercial institutions, government agencies, advertisers and celebrities are creating significant amounts of content online, especially for social media (Kaplan & Haenlein, 2010). A report by Global Information Industry Centre showed that in 2008, the average U.S. resident was exposed to about 100,500 words and 34 gigabytes of online content every day.

Decreasing value of media content. As media outlets are abundant, content produced for the mass audience is less valuable in the networked media ecosystem than it was in the mass media ecosystem. A vast majority of the content is now free although many traditional media have set paywalls for access to their online content (Abboud,

2014). However, many news media that were highly profitable in the mass media ecosystem have stopped operating in the networked media ecosystem because of declining revenues (Chittum, 2013). A recent poll found that 49% of British children and teens believe online content should be free (Hern, 2014). In 2013, a Digital Advertising Alliance survey found that 92 % of U.S. adults believe free online content (including news, weather, email blogs, video) is important to the overall value of the Internet (Interactive Survey of US Adults, 2013). Similarly, a Pew Research Center analysis showed that the total revenue for American news media has declined by one third since 2006 (Holcomb, 2014).

From mass to fragmented audience. A much-discussed impact of the shift in the media ecosystem is audience fragmentation (Dimmick et al., 2011; Webster & Ksiazek, 2012). Fragmentation refers to the breakdown of a mass audience into smaller audiences. Fragmentation occurs as numerous media outlets seek to carve unique niches in the media ecosystem by providing differentiated gratifications to audience members (Dimmick et al., 2011). Increasing numbers of media outlets competing for audience attention cause fragmentation. Webster and Ksiazek (2012) wrote, "Fragmentation results from the interaction of media and audiences" (p. 40).

In the mass media ecosystem, the audience was mass and homogeneous as media offerings were few (Webster, 2006). Citizens consumed a common diet of media products and constituted a mass audience (Chaffee & Metzger, 2001; Katz, 1996). The networked media ecosystem, however, hosts a wide variety of media products and enables people to attend specialized media to pursue individualized interests (Tewksbury, 2005; Tewksbury & Rittenberg, 2012). Abundance of media choices and

users' ability to customize consumption encourage people to "spread their time and attention across a wide range of topics and sites, both news and entertainment" (Tewksbury & Rittenberg, 2012, p. 120). This spread has contributed to a greater dispersion of audiences that do not depend on a few media outlets any more (Hollander, 2008). Audience members have instead become dependent on their own media measures to find a website that gratifies their needs, informs their opinions and appeals to their preferences (Webster & Ksiazek, 2012).

To summarize the shift from the mass media ecosystem to the networked media ecosystem, it can be said that the former was characterized by different traits and concepts than is the case in the digital era. The mass media ecosystem is defined by one-way flow of information, limited feedback, few media entities and large homogenous audiences. The networked media ecosystem, on the other hand, is defined by a horizontal flow of information, direct interaction between media producers and consumers, increasing number of media entities and a fragmented audience.

Network

The characteristics of the networked media ecosystem are best explained by the theory of network (Castells, 2009; Heinrich, 2011; Scott, 2000). Network refers to a complex structure whose parts, known as nodes, are interconnected (Wasserman & Faust, 1994). A social network is a social or organizational structure constituted by actors (e.g., individuals, media outlets and other social organizations) who share a common set of interests and rely on one another to achieve goals. Castells (2009) defined network as "complex structures of communication constructed around a set of

goals that simultaneously ensure unity of purpose and flexibility of execution by their adaptability to the operating environment" (p. 21).

The key dimension of a network is connectivity among its parts (actors/nodes). Unlike a hierarchical structure in which actors positioned at different levels may not directly communicate with one another, network actors are interconnected and able to interact (Dijk, 2006). Network, a complex organizational system, has no single center or authority where the instructions or messages come from (Cunha & Cunha, 2006).

Networks are flexible and scalable. Any person with similar interests to that of a network may join the network. Networks tend to incorporate things that help achieve network goals. At the same time, networks exclude things that are disruptive or unproductive (Castells, 2008). Flexibility in terms of exclusion and inclusion makes networks scalable, which means networks can expand or shrink.

Networks are adaptive to and coevolve with their environments (Castells, 2009; Cunha & Cunha, 2006). Networks can retain their goals while adapting to changes in the environment by blocking or connecting to new actors. According to Castells, actors in a network are differentiated based on their power, which is determined by the value a node creates. Power on the network comes from its organizing, bridging and goal setting abilities (Castells, 2011). Networks are dynamic and their communication system is open.

Networks are the results of interactions among social actors who share common interests and values. Networks can be formed on the basis of hobbies, initiatives and desires, while large networks can be built on the basis of economic, political or professional considerations (Castells, 2009).

Networks have always existed in society but this form of social organization was never as dominant as it is in the 21st century because networks require connectivity (Capra, 2002). In the modern era, bureaucracy (specialized expertise and labor organized in a way that the experts and managers can direct the producers of products – laborers) created a vertical social and organizational structure. Networks did exist, but these were among various tiers or levels of people within the structure (networks of professionals, networks of managers or networks of laborers) and seldom were the networks inclusive of people in different levels of the hierarchy. In the 21st century, digital/online networks do not consider these traditional hierarchies. All individuals connected by a special interest/goal/ideology can participate regardless of their position in the social hierarchy (Castells, 2009; Friedman, 2006).

Online Networks and the Society

Online networks are constructions in which interactions among entities are facilitated by the Internet and communication technologies while information is processed digitally. Online networks are able to include members from all over the world as these networks transcend "territorial and institutional boundaries through telecommunicated computer networks" (Castells, 2009, p. 24). Online networks demonstrate a rich internal structure "where users can choose among different types and intensity of interactions" (Grabowicz et al., 2012, p. 1). These networks constitute one global network that "enables social units (individuals or organizations) to interact anywhere, anytime" (Castells, 2009, p. 23). Finally, online networks organize the core activities of a global network society "that shape and control human life in every corner of the planet" (Castells, 2009, p. 25).

The Internet and digital technologies provide the material support for online networks. The technologies create the infrastructure for social networks in the virtual world, in which social members interact and conduct social practices in real time without territorial contiguity. This virtual world offers "high-speed, high volume, high precision communication and transportation, spanning the globe" (Stalder, 2006, p. 150) processed by advanced technologies. Individuals and institutions across the world are directly and indirectly part of the global network society that allows anyone to "selectively connect anyone and anything throughout the world" (Castells, 2008, p. 81). In the network society, individuals enjoy more freedom and more control over information. It is replacing the traditional hierarchical communication system with a participatory system (Jenkins, 2006). The global network created a vibrant, information-abundant world teeming with millions of media created both by professionals and amateurs.

The global network also transformed the traditional community structure as the Internet "becomes integrated into rhythms of daily life, with life online integrated with offline activities" (Wellman, Boase & Chen, 2002, p. 151). Communities now can become global with the Internet providing "sociability, support, information, a sense of belonging and social identity" (Wellman et al., 2002, p. 153). Hunter (2008) suggests that online networks liberated communities by enabling people to overcome distances and by introducing ubiquity of like-minded people (p. 23). People, regardless of the physical distance that separates them, can engage in discussion on topics of mutual interest and discover like-minded people from the virtual world (Rheingold, 2000). Baym (2010) identified four features of the Internet that encourage people to join online

communities: (1) anonymity, (2) ease to access groups, (3) ability to manage interaction, and (4) social distances.

As a result of some technological inventions that created the Internet since the 1980s, online networks became a reality. These technologies and the convergence thereof facilitate the core functions of the global network. These functions are key to understanding media in the networked ecosystem. The next section explores the core functions of the Internet and the technologies that created it.

Functions of the Internet and the Forces that Created It

Several technological inventions since the early 1980s have created a computer-based communication structure that is changing society and media across the world (Friedman, 2006). The development of IBM's Windows, a computer operating system that allows interaction with electronic devices using graphical symbols, enabled individuals to create digital content and connect to one another (Friedman, 2006). The invention of ways to digitize content (e.g., photo, audio and even video) generated an army of content creators who generate content on their computers and share with others. The emergence of the Web browser Netscape enabled computer users across the world to connect to one another and share their content globally. The invention of workflow software opened up this global network, called the Internet, for various forms of collaboration, ranging from writing articles for online encyclopedia to companies in India preparing tax returns for U.S. citizens (Friedman, 2006).

The launch of smart phones in the first decade of the 21st century provided individuals with even easier access to the online world. As of May 2013, 63% of adult mobile phone owners in the U.S. used their phones to access the Internet (Mobile

Technology Factsheet, 2014). By January 2014, 58% of American adults owned a smartphone.

Three functions of the Internet—hypertextuality, multimediality and interactivity (Deuze, 2003)—make the Internet distinct from traditional forms of media (Maeyer, 2012; Steensen, 2011). Hypertextuality, defined as "the extension of an existing text into other areas and other domains" (Burnett & Marshall, 2003, p. 83-84), allows multiple texts to be embedded in one text through clickable links (Oblak, 2005). Bolter (1991) argues that hypertext decreases control and responsibility of a single author over content as it makes available related content to readers. It removes the linearity of content associated with traditional media (Dalhgren, 1996). Picard (2008) wrote, ''hyperlinking lets people control their own destiny—lets them drive their way through a media experience. It lets them choose their own path, focus on what interests them, and ultimately consume media at their own pace—on their own terms'' (p. 159).

Multimediality can be defined as a "combination of information offered in different formats" such as text, image, graphics and sound (Deuze, 2003, p. 212). This has reduced the differences among different segments of media (e.g., print, radio, television) operating on the Internet. Internet users prefer multimedia content to single media content (Rangaswamy & van Bruggen, 2005).

Interactivity, which offers more direct connections between content producers and users, enables individuals to disseminate as well as receive information (Kopper, Kolthoff & Czepek, 2000). Interactivity in digital age has fundamentally changed the media experience, allowing what was considered a passive audience in the mass media era to become more active and engaged in their mediated experiences. For instance,

audience members may "interact with journalists about stories, pass on news tips, and actually report and create their own news" (Gade & Lowrey, 2011, p. 26). Web interactivity also changes audience expectations and the gratifications they seek from their mediated experiences. Stark and Weichselbaum (2013) found that users expect a greater variety of content, more foreign language programs, fewer commercials, and greater control over content from listening to Web radio as an interactive medium.

Deuze (2003) identified three types of online interactivity—navigational interactivity, functional interactivity and adaptive interactivity—in terms of media production and consumption. Navigational interactivity refers to users' ability to navigate through contents of a website. Functional interactivity allows individuals to create content for a website. Adaptive interactivity refers to users' consumption behavior, which leads producers to adapt to users' preferences.

The interactive features of the Internet, described as Web 2.0 (O'Reilly, 2004), gave rise to social media which offer a virtual space where people can engage in dialogue in real time, collaborate on projects and share content regardless of the distances between them (Kaplan & Haenlein, 2010). Individuals no longer need to be present in person and at the same place to share time. According to a 2013 survey, 94% of U.S. teenagers use Facebook and have 425 friends on average (Madden et al., 2013). About 22% of Americans aged between 25 and 34 date online (Smith & Duggan, 2013). Forrester Research predicted online shopping in the U.S. to grow to $370 billion in 2017 (Li, 2014). "The Internet supports a virtual library of information and a news-on-demand marketplace" (Lowrey & Gade, 2011, p. 3). Contributors from all over the world generated more than 4.5 million articles on Wikipedia alone with 800 new

articles being added everyday (Wikipedia: Statistics, date?). Politicians, celebrities, business executives and activists benefit from these social media (e.g., Wikipedia, YouTube, Facebook and Twitter) by directly communicating with constituents and fans (Kaplan & Haenlein, 2010).

Taken together, advanced communication technologies and their applications have created the structure for a global communication network. This network facilitates the "flow of messages among communicators through time and space" (Monge & Contractor, 2003, p. 3), enabling countless smaller networks to form. This is changing the way media work and users receive media products.

The next section examines how the media function in a networked ecosystem in relation to each characteristic of the network discussed above.

Media in the Networked Ecosystem

Technology, online media and networks are all intertwined. Communication networks of the 21st century are outcomes of "microelectronics-based digitally processed information and communication technology" (Castells, 2009, p. 24). On the Internet, media organizations act as nodes connected to other nodes in interactive networks. These networks consist of individuals, organizations and social entities. All nodes in the networks are able to create and receive content. This blurs the line between content creators who were formerly known as the audience (Rosen, 2006) and content creators working for media companies (e.g., journalists).

The shift from the mass media ecosystem to the networked media ecosystem gives audience members control over media content. Networks do not allow centralized control and linear flow of news and information as traditional mass media structure

does. In the mass media ecosystem, communication was linear, with the powerful and influential providing material for media content that was then passed on to an audience (Entman, 2004). Entman argues that people who stand at higher levels of this linear system have more power in deciding media content than those who stand at lower levels. Feedback on media content was indirect and delayed as audience members were not directly connected to the media. The network media system, however, decentralizes control over content and facilitates a two-way flow of news and information. Using networks, powerful social institutions can directly disseminate their messages to target groups of people while ordinary citizens can relatively easily create and disseminate content. As of October 2012, 20% of social media users followed on their social media pages elected officials or candidates running for office (Rainie et al, 2012). User-generated content often challenges professional media organizations (Bruns, 2008). A 2012 study by Pew Research Journalism Project found "a complex, symbiotic relationship" between news organizations and citizens (YouTube & News, 2012). Citizens create media content and post this online. They actively share news produced by professional journalists. News organizations also take advantage of citizen-created content and often incorporate this into their work (Youtube & News, 2012).

Networks are formed around shared interests. On the Internet, media markets can be formed without geographical barriers as "information now travels instantaneously via digital paths and multiple places in various parts of the globe can simultaneously be connected" (Heinrich, 2011, p. 50). This facilitates specialized media focusing on specific topic(s) that can transcend national boundaries. The networked media ecosystem challenges traditional media products that are "highly subjective to the

cultural preferences and existing communication infrastructure of each geographic market/country" (Chan-Olmsted, 2004, p. 50).

In the mass media ecosystem, media organizations produced content in a way that some part of the product would interest nearly everyone in the mass audience (Lacy & Sohn, 2011). This process is known as product bundling. For instance, newspapers combine various products such as news, analysis, reviews (e.g., books, movies), financial data (e.g., stock listings), lifestyle coverage, fashion and sports news into one bundle. The Internet and digital technologies unbundled media products as users actively look for content that satisfies their interests (Lacy & Sohn, date of publication, p. 161). Users have "increasingly eschewed 'bundled' news outlets in favor of third-party aggregators that provide them with links to the best news from around the Web" (Bakos & Brynjolfsson, 2000; Gade, 2011; Lee, 2013, para. 7). In the mass media system, media markets were mostly monopoly or oligopoly in which one or few organizations had competed as information was relatively scarce and attention was abundant (Goodman, 2014). The Internet and digital technologies shattered the monopoly of mass media organizations over news and information. The networked media ecosystem has countless media competing for audience attention (Bagdikian, 2000; Gillmor, 2004; Lacy & Sohn, 2011; Lee-Wright, 2010).

Networks are flexible and adaptive. Networked media focus on the changing needs of audience members. The Internet is a "news-on-demand marketplace" where audience members may find content that interests them at any time (Lowrey & Gade, 2011, p. 3). As for news organizations, online consumers' needs are shifting the focus "from creative inputs (news gathering, creative enterprise, verification, writing, editing

and design) to outputs of content in multiple platforms and products" (Gade & Lowrey, 2011, p. 33). Lacy and Sohn (2011) argued that a decline in consumption of traditional media results from the lack of knowledge about consumers' demands.

Networks are scalable and have the ability to be enlarged to accommodate growth of any scale. The Internet, already hosting over a billion websites, keeps growing. Digitization technologies have greatly lowered the cost of production, duplication, and distribution of media products, contributing to its growth to a large scale. "Once content has been digitized, it can be distributed over the Internet or wireless and displayed in a variety of forms—desktops, laptops, personal devices such as iPhones and BlackBerrys, and even digital tablets such as the iPad, Kindle, and Plastic Logic" (Lacy & Sohn, 2011, p. 170). Technologies also allow creating a greater variety of products using multiple formats such as text, image, audio and video to serve the interests of diverse audiences. In the networked media ecosystem, audience members are like "networked hunters and gatherers" who search for what interest them (Gade, 2011). Chartbeat, a Web analytics company, explored user behavior on a sample of 2 billion page views and found that 55% of readers stay on a Web page for only 15 seconds (Haile, 2014). About two thirds of readers do not revisit a website in 30 days (Josh, 2013).

Summary of Chapter 2

Chaffee and Metzger (2001) summarized the overall impact of the Internet and digital technologies on the media ecosystem (see Table 2). The networked environment system created countless media, weakening the centralized control of the relatively few media that operated in the mass media system. Mass media audiences were large and

homogeneous, while networked media audiences are diverse. In the mass communication system, transmission of information was time-specific (e.g., morning news) and used to flow one way (e.g., media organization to audience members). The networked media ecosystem is interactive where communications occur at convenience. Chaffee and Metzger also argue that key motivation for using mass communication was arousal (e.g., identification of self with attractive others such as celebrities) while the motivation to communicate in the new environment is need satisfaction (e.g., connecting with people who share our interests and ideas). Chaffee and Metzger (2001) stated that the networked media system weakened the control of mass media organizations. There are fewer entry barriers in this system. As a result, the power of a few organizations to primarily made decisions about content decreased significantly (Chaffee & Metzger, 2001).

In the mass media system, the audience was referred to the aggregate of a relatively passive group of people who had a few media choices and, therefore, would consume from whatever the media organizations offer. In the new media system, users have abundance choices and they are able to search for content that fulfills their specific needs and interests. Audience members are no longer passive consumers; they are "networked hunters and gatherers" (Gade, 2011, p. 25). They are active as well as purposive in media selection, who "can exert substantial control over what news it consumes and—most important—what it comes to believe and feel about the world" (Tewksbury & Rittenberg, 2012, p. 24). Napoli (2011) stated the new communication tools provided the information users with autonomy that they did not have before. According to Napoli (2011), "The media environment, ranging from interactivity to

mobility to on-demand functionality to the increased capacity for user-generated content, all serve to enhance the extent to which audiences have control over the process of media consumption" (p. 8).

Table 1: Summary of differences between mass and networked media

	Mass Communication	**Networked Media Communication**
Channels	Few	Many
Audience	Unified	Diverse
Control	Sender	User
Transmission	One-way, time-specific	Interactive, at convenience
Research Paradigms	Content analysis, effects on audience	Interface design, info search
Typification	Television	Video games, Web sites
Motivation	Arousal	Need satisfaction
Ego concept	Identification	Self-actualization
Social control	Laws, professional ethics, public education	Technical devices, monitoring
Learning	Social modeling	Experiential
Scarce statistic	Number of murders a child sees by age 18	Number of murders a child commits by age 18

Source: Chaffee & Metzger, 2001

In sum, this chapter explored two major components of an ecosystem and the way they interact. It was followed by a discussion on the media ecosystem. The chapter identified some major changes in the ecosystem such as an increase in media and fragmentation of the audience. As the media ecosystem in the 21st century is characterized by networks, this chapter also looked into the key characteristics of networks, including complexity, scalability and adaptability. It also examined the distinct characteristics of online networks that created a global network society. Then, this chapter outlined what each characteristic of networks means for media. Finally, it

looked at some major impacts of online networks and digital technologies on the media environment, which include increasing number of media, content creation by media professionals, organizations and amateurs, and multiple ways audience members can access media content.

The next chapter will explore various types of online media and similarities and differences between them, and then propose a typology of online news and informational media.

Chapter 3: Web Typology—A Conceptual Framework

This dissertation seeks to define the networked media ecosystem through two explorations: (1) how the news and informational content creators position themselves in the networked media ecosystem, and (2) how the users perceive the position of content in the ecosystem. Performing these explorations requires characterizing and categorizing the online news and informational content to identify primary content groups or populations in the ecosystem. The previous chapter explored the way the media ecosystem is changing and how it enables individuals and organizations to create media products and disseminate them through online networks. It also examined how these changes impact the media population (e.g., from a few to countless media outlets). Discussion in the previous chapter demonstrates that the media ecosystem has become complex with more content creators and many new forms of content. The differences among various types of content (e.g., advertisements, editorial content, advertorials) are also getting blurred (Campbell, Cohen & Ma, 2014). This complexity in the ecosystem makes it difficult to categorize online media and to have a systematic understanding of how various forms of online media are similar and different. Nevertheless, categorization is the key to understanding how media position themselves within a new ecosystem.

Several scholars (e.g., Deuze, 2003; Cambell et al., 2014; Hess, 2014) recognized the fact that online media need to be categorized in a different way than mass media. Mass media are generally categorized either by geographically-defined mass audiences or the technology used to deliver messages such as print and film (see Albarran, 2010; Noam, 2009). Online networks enable media to form audiences without

territorial contiguity, while digital technologies converged multiple media (Wilkinson, Grant & Fisher, 2013). Therefore, existing categorization systems for the mass media are not adequate to understand how online media compete and coexist (Hess, 2014).

With the rise of the Internet as a popular medium, several scholars have categorized online media. However, each categorization differs from the other. A few of them are broad and seek to cover the entire spectrum of online news and informational content (e.g., Deuze, 2003; Hess, 2014; Cambell et al., 2014; Weber & Monge, 2011) while others are relatively narrow and cover a particular section of Web content such as user-generated content or blogs (e.g., Kaplan & Haenlein, 2010; Nip, 2006; Vickery & Wunsch-Vincent, 2007). Hess (2014) uses a management perspective to categorize online media. He considers media companies as "organizers of public, media-based communication" (p. 6). Campbell et al. (2014) argue that the key dimensions for objective classification criteria of online content are: (1) Who creates the content, and (2) If there is any payment involved in the process of creating and/or placing the content (p. 8). Deuze made categories of online media content based on key characteristics of online publishing such as hypertextuality, interactivity and multimediality. Other scholars used different other perspectives for their typologies of online media content.

Little similarity exists among the available typologies of online media. Most of them are not developed enough for testing (Cambell et al., 2014; Hess, 2014). The extent to which these typologies are applicable is yet to be ascertained. Creators of some typologies (e.g., Deuze, 2003) admitted that their model does not cover every type of online media. Despite the limitations, the existing typologies are very important because they explicated various important concepts (e.g., who creates the content such

as institutions or individuals and characteristics of the content such as interactivity). These typologies provide many important ideas that, combined, may constitute a better framework that can be used to categorize online news and informational media. The purpose of this chapter is to continue the work of categorization that others have begun. It seeks to synthesize the previous scholarly work and build on it, identifying the key concepts required and building a typology—or framework of categorization—that helps understand the positions of different media in the changing ecosystem.

This chapter reviews existing literature on typologies of online media to understand the challenges of categorizing. It then synthesizes this literature into a framework for understanding how various forms of online content position itself within the media ecosystem. Finally, it proposes a categorization framework for online content.

Existing Web Typologies

As countless media and content creators made the media ecosystem complex, scholars conceptualized and categorized the Web in various ways. Three computer science scholars (Kleinberg, Raghavan & Gibson, 1998) proposed one of the first Web typologies. Media scholars (Weber & Monge, 2011) later applied and extended this. Kleinberg et al. (1998) suggest that there are two types of websites on the Internet: (1) authorities and (2) hubs. Websites known as authorities provide news and information (e.g., newspaper website) while websites known as hubs provide links to the content authorities (e.g., search engines) offer. Authorities are the "sources of information and content" (Weber & Monge, 2011, p. 1064). Users rely on these websites (e.g., news media websites) for credible information and stories. Hubs are the directories of authority websites (e.g., search engines). They only direct users to authority websites.

For instance, when users want to know about recent political events, hubs provide them with links to different authority websites where users may find the information they need. This Authority-Hub model has been proposed on the basis of hyperlink structure of the Web, and then tested by a computer algorithm called Hyperlink-Induced Topic Search that tracks the flow of information within networks. According to Gibson et al. (1998), authorities are the highly referenced websites on particular topics and hubs are directories of links pointing to the authority pages. Scholars applied this model to identify clusters in networks (e.g., Asano, Tezuka & Nishizeki, 2007) and representation of organizational networks (Halavais, 2008).

Weber and Monge (2011) applied the Authority-Hub model to news websites and extended it by adding another component—source—to it. According to Weber and Monge (2011), authority websites do not produce all the content available on their websites. They get much of their content from websites called sources that produce original content (e.g., wire services, blogs). This Source-Authority-Hub model suggests that source websites feed information into authority websites, which distribute selected content into larger online networks through hubs. Although users can directly access source and authority websites, this SAH model suggests that transmission of information occurs linearly within online networks from sources to authorities to hubs. In this model, both source and authority websites create content and hubs only provide links to those sites.

Hess (2014) categorized media companies operating in the networked media ecosystem. According to Hess, media companies function as "organizers of public, media-based communication" (p. 6) and there are three types of online media

companies: (1) content providers, (2) platform operators and (3) hybrid media. Content providers are the websites of traditional media organizations and the websites modeled after the traditional media, in which a media company produces, aggregates, bundles and distributes content (Hess, 2014, p. 3). These websites "focus on their content alone which is often linked to a certain cultural or geographical area only" (p. 7). Primary competencies of the employees of these companies are to "create, edit, and provide content" (p. 7). Examples of content providers include websites of newspapers, radio, televisions, magazines, books, music companies and different institutions. Platform operators, the second type of online media company, maintain a platform and manage user-produced content. Employees of these companies do not create or edit content. Examples of platform operators include search engines (e.g., Google, Bing), social networking sites such as Facebook, micro-blogging sites such as Twitter and blog sites such as Wordpress. Companies that own these websites do not create content. Hybrid media, the third type of media company, are the ones that produce their own content as well as offer space for people to post content (e.g., *Huffington Post*). *Huffington Post* produces original employee-created content while it also offers users space to post content on its website.

Campbell et al. (2014) proposed a "more standardized typology" (p. 7) of Web content creators to develop nuanced marketing strategies for advertisers. They argued that the Internet blurred the differences among various types of content such as editorial content and advertisement. Any content such as editorial content, user-generated content, online discussion or word-of-mouth may perform similar functions such as informing the people as well as promoting products or ideas. Function, in this context,

refers to the roles of content as intended by the content creators. Campbell et al. (2014) suggest that the key dimensions for objective classification criteria of online content are: (1) who creates the content and (2) if there is any payment involved for creating and placing the content. They identified three types of Web content creators: (1) brand, (2) news media and (3) users. Brands or companies create content (e.g., social videos & viral videos) and directly disseminate it to target audiences. They also create advertorial and display advertising and pay media companies to place the content. Media often create editorial content, known as branded editorial content and sponsored editorial content that serves the purpose of advertisers. One example of branded editorial content is Harper's Bazaar #TheList editorial feature that showcases emerging trends (Campbell et al., 2014, p. 9). Brands can place their products on this list in exchange for sponsorship (Vega, 2013). Users also create content that serves advertisers' purposes. Such content includes word-of-mouth (e.g., tripadvisor.com) and consumer generated advertising (e.g., iPhone New York, 2007, YouTube video). Although brands make no payment, this content promotes products (Berger, 2013; Dichter, 1966). Sometimes, users create promotional content sponsored by advertisers. An example of such content is Amazon.com's Vine program that offers trusted reviewers with free products for writing reviews (Chow, 2013).

Deuze (2003) proposed that there are four categories of websites: "[1] mainstream news sites, [2] index and category sites, [3] meta—and comment sites and [4] share and discussion sites" (p. 205). According to Deuze (2003), mainstream news sites offer a selection of editorial content (content created by professionals) and minimal user-generated content filtered and moderated by professionals. Examples include

websites of television channels, newspapers and online-only media run by professionals. “This type of news sites does not differ much from print or broadcasting journalism in its approach to journalistic storytelling, news values, and relationship with audiences” (Deuze, 2003, p. 209). Index and category sites are the websites that “gather, index and categorize editorial content found elsewhere on the world wide web” (p. 215). Index and category sites concentrate on categorizing editorial content. Examples of index and category sites include search engines, websites of research firms, agencies and enterprising individuals. Meta—and comment sites, the third category in Deuze’s model, refer to the websites “about newsmedia and media issues in general” (p. 210). This category includes websites intended as media watchdogs (e.g., mediachannel.org and Poynter Institute’s poynter.org), websites intended as index and category of media (e.g., European Journalism Centre’s Medianews), and websites intended for criticism of the mainstream media (e.g., alternative media websites such as Indymedia.org). These websites offer both editorial content and facilitate critical discussion by mainstream media users. They serve as alternative media voices. Share and discussion sites are the platforms where people exchange ideas and stories about various topics of interests. Social media fit in this category (e.g., Facebook and YouTube).

Deuze’s (2003) made his categorization on the basis of the degree to which websites allow user connectivity and user participation. Deuze defined connectivity by the extent to which communication occurs “without a formal barrier to entry (such as an editing or moderating process)” (p. 207). Connectivity, according to Deuze’s conceptualization, occurs when users create content and others can access that content without having a third party filtering or editing it. Deuze also used the term interactivity

as a synonym for connectivity. Deuze put his Web content categories on a continuum ranging from the least connective to the most connective websites. Mainstream news sites are the least connective websites because they publish purely editorial content created and edited by professionals. User-generated content on these websites may be edited or filtered. Share and discussion sites are the most connective websites because they offer purely user-generated content that is not subject to editing or filtering. Meta—and comment sites are the second most connective websites while index and category sites are the third most connective websites.

Typologies of user-generated content websites. In a 2007 report, the Organization for Economic Cooperation and Development (OECD) categorized the websites hosting user-created content (Vickery & Wunsch-Vincent, 2007). The report defined seven such types of websites: (1) Blogs, (2) wikis and other text-based collaboration formats, (3) sites allowing feedback on written work, (4) group-based aggregation, (5) podcasting, (6) social networking sites and (7) virtual work. The report conceptualized user-created content as: "i) content made publicly available over the Internet, ii) which reflects a certain amount of creative effort, and iii) which is created outside of professional routines and practices" (Vickery & Wunsch-Vincent, 2007, p. 9). Various features have operationalized these websites allowing particular forms of user participation. For instance, blogs allow users to create and update their content while wikis allow users to edit and modify user-created content (Vickery & Wunsch-Vincent, 2007, p. 33). According to Vickery and Wunsch-Vincent, blogs are websites that provide content created and updated outside of traditional media. Wikis are websites that allow users to create and edit content collectively. Sites allowing feedback

on written work offer spaces to users to post, read and review stories as well as connect with one another through forums and chat rooms. Group-based aggregation sites collect, rate and tag links of online content collectively. Podcasting sites enable distribution of multimedia files using syndicated feeds. Social networking sites are websites that allow users to create personal profiles. Virtual worlds websites offer users opportunities to script and develop virtual objects that create a virtual environment (e.g., Second Life). Although these websites are known for user-generated content, legacy media and businesses also use it professionally (Vickery & Wunsch-Vincent, 2007).

Domingo and Heinonen (2008) categorized blogs into four types by the degree to which bloggers are affiliated to mainstream media organizations: (1) citizen blogs, (2) audience blogs, (3) journalist blogs and (4) news media blogs. Citizen blogs are platforms in which the public outside the mainstream media organization create content. Authors of this type of blogs include commentators, specialized writers and amateur reporters. These blogs monitor and criticize the content of legacy media. They also highlight weakly-exposed stories in the legacy media. Audience blogs contain entries written by the audience of particular legacy media. News media organizations manage space for this type of blogs only for subscribers. Journalist blogs, as defined by Domingo and Heinonen (2008), are the websites that are run by individual professional journalists, not by news media organizations. The Society of Professional Journalists has a directory of such websites (Society of Professional Journalists Freelancer Directory, n.d.). These websites are independent of the organizations that the individual journalist works for. Media blogs, the last category of blogs, are the blogs in which

professional journalists write content on behalf of the mainstream media organizations. The owner media organization monitor content on these websites.

Kaplan and Haenlein (2010) provided a classification of social media websites. They defined social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow creation and exchange of User Generated Content" (p. 61). To systematically categorize social media, they used four concepts: social presence, media richness, self-presentation and self-disclosure. Based on this conceptualization, they have proposed six categories of social media: (1) collaborative projects, (2) blogs, (3) content communities, (4) social networking sites, (5) virtual game worlds and (6) virtual social worlds. Collaborative projects enable people to work together in real time to create and edit content. Such websites include wikis and social bookmarking applications. The latter facilitates group-based rating of media content. Kaplan and Haenlein (date of publication) used the definition of Vickery and Wunsch-Vincent (2007) to define blogs (e.g., publicly available, creative and created outside of professional practices). Content communities are websites that enable content sharing among Internet users through networks. Social networking sites enable users to create profiles, connect with others and create and share content. Virtual game worlds and virtual social worlds are similar websites. In virtual game worlds, users can create and play games online while virtual social worlds offer users to do other social practices with virtual characters.

McKenzie et al. (2012) proposed three models of user-generated content creation and distribution, which they claim "capture all forms of digital content created outside of workplace environments." Their first model—creative content—refers to

media content (text, audio, images etc.) produced by individuals and distributed through online platforms such as blogs, social media and citizen journalism sites. The second model—small-scale tools—refers to modifications of software or apps written by individuals. A third model—collaborative content—includes media products produced and distributed collaboratively through open source software such as wikis. As defined by the authors, small-scale tools and collaborative content are similar in many respects. First, both are creations of individuals or informal groups. Second, both types of content are distributed through individual websites or platforms such as Facebook or Second Life. For example, www.appbank.com functions as an aggregator and distributor of small-scale tools. What makes them different is the type of content as implied in the names of these models. Creative content refers to stories in various forms such as text, audio, image and video, while small-scale tools refer to more encrypted information such as codes. As a result, these two models can be put into one model.

In sum, the existing typologies have characterized and categorized online media in several ways: as a whole, including by content, platform and content providers (Deuze, 2003; Hess, 2014; Kleinberg et al., 1998; Weber & Monge, 2011), by Web content only (McKenzie et al., 2012; Kaplan & Haenlein, 2010; Vickery & Wunsch-Vincent, 2007) as well as by Web content creators (Campbell et al., 2014; Domingo & Heinonen, 2008) with varying range of focus. These typologies identified and explored various concepts such as: who creates Web content (Campbell et al., 2014); hyperlink structure of Web media (Kleinberg et al., 1998); structure of online information transmission (Weber & Monge, 2011); functions of online media (Hess, 2014); connectivity and user participation (Deuze, 2003); user-generated content (Vickery &

Wunsch-Vincent (2007); richness of online media (Kaplan & Haenlein, 2010) and; ideological and technological foundation of Web 2.0.

The next section synthesizes these typologies in relation to the problem being addressed in this dissertation, namely the categorization of online news and informational media and looking at how these categories compete and coexist.

Synthesis of the Literature on Web Typology

Several typologies (Deuze, 2003; Hess, 2014; Kleinberg et al., 1998; Weber & Monge, 2011) affirm that online media organizations perform primarily two tasks: (1) content creation and (2) platform management. Some organizations perform one of these two tasks while others perform some of both tasks. For instance, mainstream media known as authorities (Weber & Monge, 2011) mainly focus on content creation by professionals. Meanwhile, social media (e.g., Facebook, Twitter) and search engines (e.g., Google), known as hubs (Weber & Monge) or content platforms (Hess, 2014), focus on managing platforms in which users create content. Websites such as the *Huffington Post* perform some of both tasks.

Most of the other typologies discussed in the previous section (Domingo & Heinonen, 2008; MacKenzie et al., 2012; Kaplan & Haenlein, 2008; Vickery & Wunsch-Vincent, 2007) only categorize the media organizations that manage platforms—known as social media (e.g., social networking sites, blogs and wikis etc.). These typologies are created on the basis of technological attributes (e.g., differences in features being offered).

Compared to the typologies of platforms, content creators have received little attention from scholars. Categorization of content creators barely exists, as only

Campbell et al. (2014) provided a set of categories for this. However, this is a typology of the content creators who consider the function of their content being to promote something (e.g., advertisement). Campbell et al.'s categorization scheme remains underdeveloped and not inclusive of the content creators whose motives might be different than promoting consumer products.

Several existing Web typologies, tested with empirical studies, found the relationship between organizations that manage platforms and those that create content as complementary (Hess, 2014; Kleinberg et al., 1998; Weber & Monge, 2011) and in which the content creators (organizations or individuals) and online media platforms rely on each other for mutual growth. For instance, platforms such as search engines do not exist if no one creates content on the Web. Also, search engines and social media help content creators reach more users. Metaphorically, the relationship between content creators and platform managers can be compared to the relationship between product manufacturers (e.g., PepsiCo, Unilever) and retailers (e.g., Walmart, Target) in consumer markets. For online media, manufacturers are the content creators and retailers are the platforms. For instance, the Authority-Hub model (Kleinberg et al., 1998) and the Source-Authority-Hub model (Weber & Monge, 2011) suggest that all content creators may benefit from the presence of platforms (termed hubs in these models) as users often go to these platforms to search for content creators (Purcell, Brenner & Rainie, 2012). Mainstream media and powerful institutions rely on these platforms (social media, search engines) to reach more users (Holcomb, Gross & Mitchell, 2011; Purcell et al., 2012) as the platforms are open to the public given that the public accept their terms and conditions.

Nevertheless, the typologies of platforms (Domingo & Heinonen, 2008; MacKenzie et al., 2012; Kaplan & Haenlein, 2008; Vickery & Wunsch-Vincent, 2007) do not apply to content creators for several reasons: (1) typology of platforms doesn't recognize the differences in motives of the users (motive of an institution for using Facebook may be different from the motive of individual users), (2) platforms don't recognize the differences among users (e.g., institutions, individuals), (3) platform categories are based on technological attributes (e.g., software) that are constantly being updated or replaced by new technologies and (4) the assumption that user-generated media platforms are questionable because the term "user" tends to exclude mainstream media organizations (Holcomb et al., 2011V; Vickery & Wunsch-Vincent, 2007). Taken together, this literature indicates a vacuum—a need for categorization of content creators—in the scholarship of online media.

A typology of the content creators can be applied to the entire Web (Web media that create content as well as platforms) since all websites rely on content creators. The same categories of content creators (e.g., mainstream media; institutions, citizens) create and share content on platforms such as Facebook and Twitter. A typology of content creators, therefore, offers to extend the understanding of platforms (e.g., social networking websites, blogs) by providing new ways to explore the platforms. Once the content creators are categorized, scholars will be able to explore similarities and differences among them in terms of their platform uses. For instance, the purpose of mainstream media to share their content on Facebook may be aimed at attracting readers to their original websites, rather than educating Facebook users.

The existing typologies may lay the ground for a typology of content creators as several types of content creators have been identified in these typologies. Deuze (2003) in his typology of journalistic websites identified three types of content-based on who creates the content: (1) editorial content created by professionals, (2) user-generated content created by non-professionals and (3) alternative media content created by people outside of mainstream media. Domingo and Heinonen (2008) explained how four types of content creators use the same online tool (e.g., blogs) to create news. Campbell et al. (2014) argue that Web content is best categorized by "who creates the content." Campbell et al. identified three types of content creators—brand, news media and users. However, the focus of Campbell et al.'s typology is on a similar function (to persuade) performed by the content creators, rather than on differences that determine media niches in the ecosystem. Campbell et al. suggest that all content creators may perform similar functions (e.g., to persuade). However, to determine niches in an ecosystem (as discussed in Chapter 2), the primary functions of media populations must be differentiated (Dimmick, 2003). A unique primary function makes one type of content creators different from other types and determines its niche in the ecosystem, although functions of content creators may overlap in some areas.

In sum, a typology of online news and informational media covering the entire Web needs to identify two things: (1) who creates the content and (2) what the functionalities of content are as intended by the content creators. The next two sections address these issues.

Content Creators

The literature reveals four major types of content creators: (1) mainstream media (Deuze, 2003; Domingo & Heinonen, 2008; Weber & Monge, 2011), (2) institutional media (Campbell et al., 2014), (3) alternative media (Deuze, 2003) and (4) user-generated media (Deuze, 2003; Domingo & Heinonen, 2008; Kaplan & Haenlein, 2010, Vickery & Wunsch-Vincent, 2007). This section defines these four types of content creators.

Mainstream media. Mainstream media refer to online news media that follow the traditional content publishing approach used by mass media organizations (Hess, 2014). Mainstream media include webpages of traditional mass media organizations as well as net-native media organizations (Deuze, 2003). Net-native media publish professionally-created content only on the Internet. Webpages of newspapers, television channels and radio stations fall in this category as they all follow the same content publishing approach (Hess, 2014). Legacy media offer content that is created and edited by professionals. Deuze (2003) characterizes the mainstream media content in two ways: (1) originality and (2) the process of aggregation. Content of the mainstream websites is originated for the Web and it is aggregated or "shoveled from a linked parent medium, 'framed' or 'deep-linked' from an external source" (Deuze, 2003, p. 208). Examples of the mainstream media are: *New York Times*, CNN, BBC and NPR. Hess suggests (date of publication) that media that follow traditional approaches are linked to geographical or cultural areas.

Institutional media. Institutions refer to complex social structures that govern the behavior of individuals within a society (Social Institutions, n.d.). These institutions

include economic, social, legal and political entities (e.g., corporations, universities, legal systems and the governments). Content created by institutional media includes information about particular institutions, products, services or causes (Bogart, 1995; Campbell et al., 2014). Both for-profit and non-profit institutions (e.g., NGOs) fall in this category. Webpages belonging to these institutions are considered institutional media. Economic institutions such as corporations create various forms of content such as advertisements, social video, viral video, sponsored content, public relations content as well as editorial content (Campbell et al., 2014). Social institutions such as universities create online content in various forms such as e-books, articles, blogs, lectures, data and wikis. Many universities are now offering online courses (e.g., www.coursera.org). The government is creating a lot of content online including data (www.data.gov), legal and regulatory information as well as news. Businesses and other social institutions (e.g., NGOs, government agencies) are creating media products such as photos, videos and editorial content, and disseminating them through online networks (Campbell et al., 2014). Companies are operating branded blogs to engage with online communities (Teich, 2008). Starbucks, for instance, has more than 37 million Facebook fans. When they log into this social networking site, Starbucks fans can see anything the company posts on its Facebook page. Campaigns staff (e.g., election campaign; government campaigns) are now able to directly communicate with a large audience "without the filter of the traditional media" (Sweetser, 2011, p. 294). The U.S. government regularly updates its blogs with the latest news.

Alternative media. Alternative media are media that constitute alternative public spheres and that aim to bring social and political changes (Downing, 1984,

2008). Alternative media raise ideas that don't exist within the mainstream media (Downing, 1984). Online alternative media are the latest incarnations of a historical line of oppositional, radical and underground media, which included small-press publishing, underground radio or public-access video (Atton & Hamilton, 2008; Lievrouw, 2011). The pre-Internet alternative media in the U.K. and the U.S.A. worked on different rights issues.

Alternative media may be operated within organizational structures but they allow more room for users (Deuze, 2003). Alternative media content usually contradicts the dominant discourses and expresses alternative visions to hegemonic views, and elites' priorities and perspectives (Bailey, Cammaerts & Carpentier, 2008). The Internet widens the influence of alternative media. In non-democratic or less developed societies, people rely on alternative media to a great extent for news and information (From Safety of New York, 2011). Alternative media differ from the legacy news media in terms of journalistic practices such as differences in source uses, and the relationship between content producers and sources (Atton & Wickenden, 2005; Harcup, 2003). Harcup (2003) found significant differences in terms of source uses, news frames and approaches. Alternative media go far beyond the boundaries of the dominant ideological field (Harcup, 2003). The Alternative Press Center maintains a list of alternative media.

User-generated media. User-generated media are the webpages run by individuals (McKenzie et al., 2012). User-generated media produce text, audio, photos, videos and multimedia content on websites as well as social media pages (McKenzie et al., 2012). Vickery and Wunsch-Vincent (2007) suggest that user-generated content must be published on publicly available websites. To be considered user-generated

media, content must be original and demonstrate some creativity. User-generated content is produced outside of professional practices and routines (Vickery & Wunsch-Vincent, 2007). Forrester Research suggests that one in every four Internet users creates and posts content online (Fleming, 2012). Young adults with higher socioeconomic backgrounds are more active in creating online content than those with a lower socioeconomic background (Hargittai & Walejko, 2008).

Summary of the section. This section defines four types of content creators and identifies differences among them. The major differences between the content creators are: (1) some publish professional content while others lack professional content; (2) some (e.g., content creators for the mainstream and institutional media) work within organizational boundaries (e.g., organizational routines, policies) while others (e.g., user-generated media) work outside of organizational boundaries; (3) the extent and areas of coverage of each type of content creator vary (e.g., content of an institutional media is limited to content about its own interest while alternative media focuses on what the mainstream media avoid). These differences may be linked to the motives of the content creators that may define their functionalities.

The next section defines functionalities, as intended by the content creators, which leads to a new typology that connects the content creators with functionalities.

Functionalities

Functionalities of media content can be understood by media norms (Peterson, 1956; Siebert, 1956), and by motivations as well as communication needs of the content creators (Campbell et al., 2014; Jones & Pittman, 1982; Martinelli, 2011). Functionality can also be understood by how audience members use media content, their motivations,

needs and wants (Dimmick, 2003; Dimmick et al., 2011). However, users and content creators may perceive functionalities of media content to be different since their motivations and needs are different. For instance, primary motivation of a corporation to create content may be to boost sales while users may consider that content a source of entertainment (Schmidt, 1994). With content, content creators attempt to meet their own needs as well as provide gratifications to users (Dimmick, 2003). This section defines four functionalities of online news and informational content from the perspective of content creators, and identifies various dimensions of those functionalities. Functionalities in terms of users' needs and wants will be discussed in chapter 4.

To inform. The functionality "to inform" can be defined as educating the public about what is going on in society with immediate, objective and detailed information about important issues and events (McQuail, 1992; Peterson, 1956; Westerstahl, 1983). This functionality is rooted in the normative theories of the press such as libertarian and social responsibility theories (Peterson, 1956; Siebert, 1956). According to the normative theories, the key functionality of news media or content creators is to inform the public and help citizens identify social problems and take better decisions for them and for society (Habermas, 1989; Peterson, 1956; Siebert, 1956). This information helps service the political and economic system as it provides people with what they need (e.g., public sphere) and what they want (e.g., respite from the demands of life and educate them about things that interest them). This information also orients people to their personal and social needs (DeFleur & Ball-Rokeach, 1989). The social responsibility theory explains six roles of media to society: (1) providing service to the political system by facilitating information, discussion, and debate on public affairs, (2)

enlightening the public and making citizens capable of self-government, (3) safeguarding the rights of individuals by serving as a watchdog against government, (4) providing service to the economic system by bringing together buyers and sellers through advertisements, (5) providing entertainment and (6) maintaining its financial self-sufficiency (Peterson, 1956, p. 74).

Scholars identified various dimensions of the inform function of media content. A key dimension of this function is immediacy—the process of providing instant updates of what is going on around (Massey & Levy, 1999). Immediacy is defined by timeliness such as how fast content is updated on a website (Lim, 2012). The inform function is also defined by the extent to which the content is objective or unbiased (Kovach & Rosenstiel, 2007; McQuail, 1992; Westerstahl, 1983). The concept of objective information, rooted in the scientific method of inquiry, is represented by several dimensions such as: fact-based, authenticity, transparency and presence of multiple perspectives (McQuail, 1992; Schudson, 2008; Westerstahl, 1983). "Fact-based" means that the information is based on facts (e.g., answers of who, what, when and where in a news story). Lasorsa and Lewis (2010) suggest that factuality refers to the idea that media provide facts that can be verified. Authenticity are two interconnected terms and this connection can be made clear by saying that a view of an event may come only from the people who have expertise in a particular area. Hayes, Singer and Ceppos (2007) defined authenticity as a personal attribute that makes a person credible. "Authenticity is a matter of individual moral responsibility" (p. 270). Freedman, Fico and Durisin (2010) suggest that credible people are the ones who are experts on some issue or aspect and who are "removed from the partisan outcomes

relevant to their expertise" (p. 21). Transparency, a dimension that some have proposed should guide the media norms (Allen, 2008; Karlsson, 2010, Phillips, 2010), means openness and accountability that reassert the pursuit of truth (Lasorsa, 2012; Singer, 2007). The final dimension to be discussed here is multiple perspectives, which refers to presentation of multiple views on an issue or aspect. Such perspectives may be potentially conflicting but they help reduce biases of the content creator to any particular party (Dennis, 1984; McQuail, 1992).

In sum, the functionality—to inform—consists of five dimensions: immediacy, fact-based, authenticity, transparency and multiple perspectives.

To persuade. This functionality can be defined as providing information aimed at changing users' attitudes in ways intended by the content creators. Motivation for creating such content may vary from private to corporate to other special interests. Social institutions (e.g., government), politicians and corporations have had influence over media content and manipulate it to persuade people (Kovach & Rosenstiel, 2007; Shoemaker & Reese, 1996). Persuasion remains part and parcel of media content. Scholars defined persuasion as attempts to change individuals' attitudes, beliefs or behaviors (Perloff, 2003) or changing their perception of the value of an object or idea (Deighton, Romer & McQueen, 1989). It is also defined as a process of communication in which messages are aimed at eliciting responses from the target audience in a desired way (Perloff, 2003). Advertisements, for example, are explicitly aimed at persuading consumers (Chang, 2008; Escalas, 2004). Politicians (e.g., presidential candidates) create media content for mass persuasion about political issues and policies towards those issues (Sproule, 1997).

The study of persuasion dates back to the ancient times of Plato and Aristotle. Aristotle's three persuasive elements—ethos (ethical appeal or credibility), pathos (emotional appeal) and logos (logical appeal)—of verbal communication are still being employed in various campaigns (Martinelli, 2011). The contemporary studies of persuasion range from reasoned argument (e.g., persuasive conversation) to narrative persuasion (e.g., persuasion through texts or stories) across disciplines including psychology (Bruner & Bruner, 2009), theology (Goldberg, 2001) and economics (McCloskey, 1998). Examples of reasoned argument or persuasive conversation include arguments, disagreement or discussions aimed at certain outcomes such as gaining knowledge or political tolerance (Mutz, 2008; Thompson, 2008). Narrative persuasion refers to texts or stories consisting of a "sequence of thematically and temporally related events" that may involve various characters (Adaval & Wyer, 1998; p. 208; Fisher, 1987). Narrative persuasion (persuasion through content) may not always be based on argument. Intent of narrative persuasion can be implicit or explicit. For instance, the intent to persuade is explicit in advertisements based on short stories (Chang, 2008; Escalas, 2004) while this intent remains implicit in long dramas meant for education or entertainment (Singhal, Code, Rogers, & Sabido, 2003). Persuasion may occur when the content creator intentionally shows bias towards an issue or person with emphasis on comparison (Clark & Delia, 1977).

Dimensions of persuasion functionality are rooted in the field of cognitive psychology that deals with mental abilities and process relating to attention and memory. Five dimensions of persuasion functionality have been identified from the literature. First, persuasive content seeks to emphasize an informal relationship with

users in order to make users feel connected with the content creator. To highlight this relationship, content creators often use personalized messages (among close friends or family members) (Roberto et al., 2010). Such messages are also known as phatic expression (Nord, 2008). Second, persuasive content creators often use logics to persuade people. Uses of benefits and cost as logic are common in persuasive content (Palan & Wilkes, 1997; Roberto et al., 2010). For instance, persuasive content explicitly discusses benefits or costs for possessing (or not possessing) or having (or not having) a favorable attitude towards a product or cause. Third, a popular technique used in persuasive content is emotion (Palan & Wilkes, 1997). Persuaders often associate products or causes with one's happiness and sadness (Tan, 1986; Newhagen & Reeves, 1992). Emotional appeals are often embedded in persuasive content (Lang, Dhillon & Dong, 1995, p. 313). Several studies (e.g., Tan, 1986; Newhagen & Reeves, 1992) found that emotional messages are persuasive and get more attention. Fourth, persuaders also use normative appeal and seek to invoke ethical obligation among users (Bresnahan & Zhuang, 2012). Guttman and Ressler (2010) call this appeal to personal responsibility that is used in campaigns (e.g., health communication campaigns). Fifth, one technique that persuaders often use is employing celebrities to present message that may arouse comparison motive (e.g., users compare themselves with the ones they notice in the content). "Highly attractive models are intended to impact psychologically on message receivers and improve awareness, expectations, attitudes, beliefs and advertising effectiveness" (Dickinson-Delaporte, Ford & Gill, 2014, p. 357).

In brief, dimensions of the persuasion function are: personalized messages, logic, emotion, obligation and comparison motive.

To mobilize. This functionality can be defined as media activism in which content is created in collaboration with citizens in order to mobilize people for civic action (Bowman & Willis, 2003; Downing, 1984; Massey, 1998). The motivations of the content creators in this case include serving public, civic or communal interests. In scholarship, this functionality is often associated with the type of media that are oppositional to dominant narratives created by the mainstream media. A key functionality of this media is to interact with citizens and organize them against "unfair treatment" by the powerful people and the mainstream media (Brodie et al., 1999, p. 147). The Internet has made this functionality more evident. Many Arab dictators in the early 21st century collapsed as a result of Web activism in which activists disseminated messages through the Internet to mobilize large numbers of people on the streets (Allagui & Kuebler, 2011; Giglio, 2011).

Six major dimensions of this functionality—to mobilize—have been identified from the literature. First, such content is usually aimed at the public sphere. This type of content includes content about government, civic affairs, current events, public interests and political processes (Beam, 2003; Croteau & Hoynes, 2001). Downing (1984) suggests that such content is valued by their potential for bringing social and political change. Second, mobilizing content directly asks people for action to protect their rights. It goes beyond informing and persuading. In the U.K. and the U.S.A., there were many small community presses in small towns that were established mainly to resist the onslaught of urban mass culture (Atton & Hamilton, 2008). Third, ordinary sources (e.g., average citizens) get priority over elite sources in the content aimed at mobilizing

(Harcup, 2003). Ordinary sources are defined as "citizen organizations and individuals with no institutional affiliation" (Massey, 1998, p. 396).

Fourth, ordinary citizens often create such content by collecting, preparing and distributing it (Bowman & Willis, 2003). Citizens provide valuable contexts that major media organizations may not provide (Gillmor, 2004). Fifth, content aimed at mobilizing often result from collaboration among multiple actors/actresses (Atton, 2009; Atton & Hamilton, 2009). Such collaboration may result in publication of a piece of content on multiple platforms (repackaging, republishing). Sixth, this content relies on external supporting evidence provided through hyperlinks (Dailey, Demo & Spillman, 2008; Singer, 2005). Lowrey (2006) suggests that bloggers whose websites are linked to multiple related sites often challenge the mainstream media.

In brief, the dimensions of persuasion are: public sphere, call for action, ordinary sources, content creation by the public, collaboration and reliance on external sources for supporting evidence (See Table 2).

To self-present. With the rise of the Internet, many individuals create Web content to self-present. They provide information about their beliefs, ideologies and preferences (Campbell et al., 2014). Self-presentation or self-expression is a phenomenon that is "ubiquitous in social life" (Goffman, 1959; Jones & Pittman, 1982, p. 231). Several dimensions represent self-presentation. First, self-presentation is an idea linked to the concept of ego or sense of self. According to George Herbert Mead, a seminal scholar known for his research on self, the sense of self starts to develop among individuals as they start interacting with others (Stanford Encyclopedia of Philosophy, 2012). Through interactions with others, individuals learn to differentiate between 'I'

and ‘others.’ Mead suggests that ‘I’ represents a conscious self, which gives individuals a sense of freedom and awareness about self. Second, Mead suggests that self is social and cognitive (Stanford Encyclopedia of Philosophy, 2012). So self seeks like-minded others to be situated within a social world (Papacharissi, 2002). The word ‘we’ expresses one’s social self. Third dimension of self-presentation is rooted in the idea of building relationships with others, which may require presentation of a historic self to demonstrate similarities between content creators and users. Presentation of historic self (e.g., life experiences) serves as evidence of what individuals say they are. Peer counselors or people working for marginalized groups often use such techniques (Antunovic & Hardin, 2013; Ahmad et al., 2013). Jones and Pittman conceptualized two dimensions of self-presentation: (1) phenomenal self and (2) strategic self-presentation. Phenomenal self refers to the awareness of a person’s belief, values and attitudes that emerge from the person’s interaction with others. Dainton (2008) defined phenomenal self as a sustained effort to give an account of self, derived from experience, in terms of personal identity. Strategic self-presentation is defined as “those features of behavior affected by power augmentation motives designed to elicit or shape others’ attributions of the actor’s dispositions” (Jones & Pittman, 1982, p. 233). Behavior relating to strategic self-presentations may involve style, verbal and non-verbal communication. Jones and Pittman proposed five types of strategies individuals apply for self-presentation: (1) ingratiation, (2) intimidation, (3) self-promotion, (4) exemplification and (5) supplication.

Ingratiation is how people seek to present themselves so they are liked by others. Jones and Wortman (1973) defined ingratiation as a “class of strategic behaviors illicitly

designed to influence a particular other person concerning the attractiveness of one's personal qualities (p. 2). An intimidator tries to convince the target that he is dangerous.

Table 2: Functionalities of online news and informational content and their dimensions

Functionality	Dimensions
To Inform	Immediacy Fact-based Authenticity Transparency Multiple perspectives
To Persuade	Personalized message (phatic expression) Logic: Tempt with rewards/threats Emotion (Tone) Normative appeal Comparison motive
To Mobilize	Public Sphere Call to action Ordinary source Content creation by public Repackaging (Collaboration) External support
To Self-present	Ego/Sense of self Sense of social affiliation Historical self Phenomenal-self Strategic self

He or she shows available power to cause pain, discomfort, or all kinds of psychic costs. Self-promotion refers to communications that seek the attribution of competence rather than likability. It may refer to a general ability level such as intelligence, athletic ability or more specific skills like typing excellence and flute-playing etc. An exemplifier "seeks to project integrity and worthiness" (Jones & Pittman, 1982, p. 245) while a supplicant shows inability to protect selves. Supplicants stress dependence on others to

make a norm of obligation or social responsibility salient. “When the wolf feels overwhelmed by superior fighting power, it displays its vulnerable throat” (Jones & Pittman, 1982, p. 247).

In brief, dimensions of self-presentation functionality are: ego or sense of self, sense of social affiliation, historical self, phenomenal self and strategic self.

Summary of the section. This section defines four functionalities of media content and identified several dimensions of each functionality. These dimensions, manifest in content, help identify motives of the content creators and define their primary functions. Content creators tend to build their core competencies around their primary functions. Accordingly, through the process of understanding the relationship between content creator motives, competencies, functionalities, and how users perceive various media functions, one can begin to see how online news and informational media position themselves in the media ecosystem.

Functionalities of Content Creators: Towards A New Typology

Identification of content creators and functionalities of content (addressed in the previous two sections) lay the basis for a new typology of online news and informational media. This section completes that framework by demonstrating the connections between content creators and the functionalities. The author has identified primary and secondary functionalities of each type of the content creators. In an ecosystem, entities are inter-dependent. Accordingly, they have some functional overlap yet they cannot simply reproduce one another because this makes them unnecessary to the ecosystem. Thus they need to differentiate (find their niche) even as they work to mutually support the system as a whole (Dimmick, 2003). Some content creators have

specific motives that define their primary functions, and these content creators tend to build their core competencies around those functions.

Functionalities of Mainstream media. The primary functionality of mainstream media is to inform, but these media perform all the other functionalities—persuasion, mobilization and self-presentation—to some extent. Mainstream media websites serve as the main sources of immediate, objective and reliable information in society (Gibson et al., 1998). Also, they publish content meant to persuade, mobilize and self-present. Literature suggests that all the dimensions of inform functionality may be found in the content created by the mainstream media. Immediacy is a major trait of the mainstream media, which is demonstrated in various ways such as timely updates of stories and breaking news (Saltzis, 2012). As rooted in the normative roles of media, mainstream media focus on facts-based content in order to avoid conscious biases (McQuail, 1992). They also provide in-depth analysis in their coverage, which come from experts on given issues, events or courses (Albaek, 2011). Often, analyses come from several sources, which provide users with multiple perspectives (McQuail, 1992; Westerstahl, 1983). Mainstream media demonstrate a significant degree of transparency through disclosure of the process of preparing news and uses of less anonymous sources (Karlsson, 2010).

Several dimensions of other functionalities may also be found in the content of mainstream media as they often rely on institutions, organizations as well as individuals for content (Mitchell, 2014; Weber & Monge, 2011). For instance, mainstream media may fulfill the functionality of persuasion to some extent as they rely on press releases. Much of the mainstream media content is persuasive advertisements. Mainstream media

also publish persuasive content known as native advertising and advertorials (Campbell et al., 2014). Lewis et al (2008) found that 70 percent of articles published in U.K. print media came from press releases or press agency stories. Reich (2010) found that 73 percent of Israeli newspaper articles were based on materials created by public relations firms. Journalists rework these materials such as press releases into news reports. But elements invoking obligation or comparison motive that serve the interests of press release creators can still be found in that content (Maat & Jong, 2012; O'Neil & C'Connor, 2008; Smith, 1993). These elements may also appear in non-press release content as a result of the selection process of sources (O'Neil & C'Connor, 2008; Smith, 1993).

Some dimensions of mobilization and self-presentation functionalities are widely present in the content of mainstream media. These media have long been contributing to the public sphere by providing stimulating thoughts and provoking debates on public problems (Socolow, 2010). With the rise of the Internet, mainstream media started to allow the public to create a limited amount of content on their websites. They offer limited opportunities for direct interaction with users (Deuze, 2003). As far as self-presentation is concerned, mainstream media provide space for their journalists to self-present through the use of bylines. Some scholars (e.g., Schudson, 1978) consider this an obstacle to objectivity. Reich (2010) wrote, "The proliferation of bylines characterized the news as an imperfect, all too human account of reality, opening the way towards journalistic stardom" (p. 707). In brief, the primary functionality of mainstream media is to inform. They also perform other functionalities to some extent.

Functionalities of Institutional media. The primary functionality of institutional media content is to persuade. Dimensions of other functionalities are also present in their content. Professionals such as issue experts, public relations practitioners, campaign experts as well as journalists create content for the institutional media using persuasion techniques (Clark, 2001; Dawes, 2007; Bogert, 2010; Bristol & Donnelly, 2011). NGOs hire reporters and multimedia producers to generate content and enhance their advocacy campaigns (Bogert, 2010; Bristol & Donnelly, 2011). Institutional media content contains personalized messages meant for users to create an identity for the content creator. Brochers (2006) said the concept of identification allows unconscious persuasion to occur. Burke (1950), a renowned rhetoric theorist, also recognized this technique as an important tool for persuasion.

Literature suggests that institutional media content contains all other elements of persuasion such as logic, emotional appeal, invocation of obligation and comparison motive (Brochers, 2006; Palan & Wilkes, 1997). Content created by corporations explicitly explain the benefits of their products or services (Vaughan, Gao & Kipp, 2006). In the Middle Ages when churches were dominant, priests had incorporated ethical obligations into their rhetoric to communicate their doctrines (Brochers, 2006). Institutions—especially corporations—are the major patrons of popular models who provide testimonials extolling the advantages of products or services. This is aimed at provoking a comparison motive among the users that often leads them to believing the message (Dickinson-Delaporte, Ford & Gill, 2014).

Institutional media content may also have other functionalities. Yang and Taylor (2010) found that websites of environmental non-government organizations (ENGOs)

reflect activism. These websites provide information to organization members, people and the mainstream media and thus contribute to the public sphere. However, this contribution is for a "more instrumental set of reasons" (Powers, 2014, p. 92). As many NGOs claim to bring to light the neglected issues, their content is often meant for increasing their visibility and influence and for raising funds (Bob, 2005; Cohen, 2001). Religious advocacy groups create content as part of their media strategy to influence public policy on religious issues. Stenger and McCracken (2011) found that the content of religious interest groups influence issues affecting religions. For instance, the Family Research Council, an organization of conservative Christians, works on issues such as marriages and sanctity of life (About FRC, n.d.). Zheng (2008) suggests that the Internet enables the government to interact with people more frequently. Institutions also promote content creation by the public to understand their preferences (Campbell et al., 2014). They also use online media to interact with citizens and hear from them about their needs, their opinions about the products and services etc. (Bertot et al.; Bogert, 2010; Bristol & Donnelly, 2011; Mosse & Whitley, 2009; Teich, 2008).

Much of the institutional content fulfills the inform functionality as its content helps users make important decisions. For instance, content created by corporations may help them take better financial decisions (Kim & Stoel, 2004). Company websites serve as "repositories of information for various stakeholders and the public," in addition to serving customers with online transaction capabilities (Kim & Stoel, 2004). Institutional media often provide fact and analysis. However, in most cases, analyses from institutional media are biased (Powers, 2014). Institutional media also fulfill the self-presentation functionality to some extent. Studies show that institutions promote

capabilities of their executives through media to enhance institutions' images (Park & Berger, 2004). In sum, the primary functionality of institutional media is to persuade although their content may fulfill some other functionalities as well.

Functionalities of Alternative media. Literature on alternative media suggests that their primary functionality is to mobilize people (Atton & Hamilton, 2008; Downing, 2008). To achieve this, they also use persuasion techniques (Downing, 1984). Alternative media also partially fulfill 'inform' and 'self-present' functionalities. As discussed in the section on content creators, alternative media are meant to bring social and political changes by providing ideas to the public sphere that are oppositional to the dominant narratives created by the mainstream media (Downing, 1984, 2008). The purpose of this media is to wage activism (Harlow & Harp, 2013). When institutional media seek to influence individuals' cognitive process to change attitudes, alternative media seek behavioral change and therefore ask for direct action (Harlow & Harp, 2012). Atton and Wickenden (2005) found that alternative media prioritize ordinary sources over elite sources that dominate the news of the mainstream media. Harcup found that alternative media give voice to disenfranchised groups. Alternative media also encourage content creation by the public (Deuze, 2003). Since their resources are limited and they rely on collaboration, they may publish the same content on multiple websites (Bailey, Cammaerts & Carpentier, 2008). Also, alternative media need external support to prove their points (Dailey et al., 2008). Studies found that citizen-run media use more external hyperlinks than the mainstream media (Domingo & Heinonen, 2008; Tremayne, 2005).

For many societies, alternative media may work as the key provider of news and information (From Safety of New York, 2011) and thus perform the inform functionality. Kperogi (2011) studied how alternative media of a transnational diasporic public sphere have functioned "as veritable sites for transformational and political intercourse between a deterritorialized ethnoscape and the media and state institutions of its homeland" (p. 4). Kperogi found that alternative media functioned as whistle-blower in Nigeria, having a deep impact on the politics. Harcup (2005) examined the potential practice crossover between the alternative media and the mainstream media and found empirical evidence that "there can be movement along what might be termed a continuum of journalistic practice" (p. 361). Alternative media content may perform self-present functionality as non-professional individuals create much of their content (Atton & Wickenden, 2005).

Functionalities of User-generated media. User-generated media's primary functionality is to self-present while it may perform some other functionalities to a limited extent. Users employ the Web as a tool to create and present themselves to others (Schau & Gilly, 2003; Hyland, 2011; Papacharissi, 2002; Stern, 1999). This literature suggests that user-created content provides more information about self (authors) than anything else. Schau and Gilly (2003) examined personal websites and investigated ways Internet users demonstrate their association with certain signs, objects and places and thus self-present. They found that users employ several strategies to achieve intended self-presentations online, including constructing digital self, projecting digital likeness and managing self-impression. Each individual site studied revealed the user's association with at least one object or a brand or a commercial enterprise. Users

often publish personal information consciously. Stöckl, Rohrmeier and Hess (2007) found that users create content for the Web mainly for fun and to pass time. Stern (1999) found three 'tones' of self-expression in the websites belonging to teenage girls: (1) spirited, (2) somber and (3) self-conscious. On the websites identified as "spirited" teenage girls post content for "self-description and self-glorification" (p. 26). Websites identified as somber are created to say things that cannot be said in real life. Creators of these websites find "asylum from a difficult and hostile world" on the Web (p. 26). Self-conscious website creators are eager to speak about controversial things but cautious about revealing too much about themselves.

Hyland (2011) examined the homepages of academics, finding that these webpages promote individual accomplishments in relation to the need of the institutions they belong to. Papacharissi (2002) examined personal webpages in relation to the way people present themselves online, finding that authors of these pages used both "textual expression and indirect expressive elements" (e.g., hyperlinks, images and animations) (p. 654). Toma and Carlson (2012) found that Facebook users create profiles to present themselves in a positive way, enhance some personality dimensions and diminish others. Jonsson and Ornebring (2011) found that the users can primarily create two types of content: (1) culture-oriented content and (2) personal/everyday life-oriented content. User involvement with the production of news is minimal.

Content on user-generated websites may also contain highly persuasive elements (Campbell et al., 2014). A few user-generated media provide objective and reliable information. Studies also suggest that individual-run media such as blogs may perform some of the inform functionalities (Kaye, 2010; Lacy et al., 2010).

Table 3: Primary and secondary functionalities of online news and informational content creators

Content creator/ Functionality	Mainstream Media	Institutional Media	Alternative Media	User-Generated Media
Primary functionality (in bold, italic) with content attributes	*Inform:* (1) Immediacy (2) Fact-based (3) Depth in analysis (4) Transparency (5) Multi-perspectives	*Persuade:* (1) Personalized (2) Logic (3) Emotion (4) Normative appeal (5) Comparison motive	*Mobilize:* (1) Public sphere (2) Action statement (3) Ordinary source (4) Content by public (5) Repackage (6) External support	*Self-present:* (1) Ego (2) Social-self (3) Historical self (4) Phenomenal self (5) Strategic self
Secondary functionalities[1] (in bold, italic) with content attributes	*Persuade:* (1) Logic (2) Normative appeal (3) Comparison motive *Mobilize:* (1) Public sphere (2) Content by public (Limited) (3) External support (Limited) *Self-present* (1) Ego	*Mobilize:* (1) Public sphere (2) Action statement (3) Content by public *Self-present:* (1) Ego (2) Social self (3) Strategic self *Inform:* (1) Immediacy (2) Fact-based (3) Analysis (Limited)	*Persuade:* (1) Personalized (2) Logic (3) Emotion (4) Ethics (5) Comparison motive *Inform:* (1) Fact-based (2) Analysis (Limited) *Self-present:* (1) Ego (2) Social-self	*Persuade:* (1) Personalized (2) Emotion *Mobilize:* (1) Repackage (2) External support *Inform:* (1) Depth in analysis (Limited)

In sum, each type of content creator has a primary functionality, which is distinct from the primary functionalities of others. However, all four types of content creators have some functional overlap. Combined, this demonstrates a framework of a typology of online news and informational media.

[1] I don't assume any hierarchical relationship among the secondary functionalities.

Summary of Chapter 3

This chapter conceptually discussed the first part of the problem being investigated in this dissertation, which is typology of the Web. It reviewed the existing typologies of the Web and identified two major components that constitute the framework for a new typology that help determine media niches in the ecosystem: (1) content creator and (2) functionality. Four types of content creators have been identified and defined: (1) legacy media, (2) user-generated media, (3) institutional media and (4) alternative media. The chapter then identified four functionalities of online media rooted in normative theories, motivations of content creators as well as resource-based view of management. The functionalities are: (1) to inform, (2) to persuade, (3) to mobilize and (4) to self-present. The chapter then defined each function and identified various dimensions thereof. It also reviewed research on the functions of the four types of content creators. Finally, the author proposed a framework for Web typology that explains the primary and second most prominent functionalities of each type of content creator.

The next chapter changes the view to the perspective of the audience and seeks to understand how audience members use different types of content. It also explores gratifications that audience members seek from each type of content creator.

Chapter 4: Media Uses, Theoretical Framework, Hypotheses & Research Questions

The previous chapter discussed characterization of online media and laid out a typology of online news and informational media content. In that chapter, the author categorized online media content on the basis of: (1) who creates the content and (2) functionality of the content, determined by the communication needs and goals of the content creators. However, a media entity would not find a niche in the ecosystem until users perceive its content to be fulfilling their needs, which can be and often are different from the content creators' motivations and needs (Dimmick, 2003). Users' perceptions of media affect their use of media (Lin, 2002). The extent to which different media compete and coexist also depends on the users' perceptions (Dimmick, 2003). Therefore, to determine media niches in the ecosystem, it is not enough to identify the content creators' motivations, but essential to connect the content types to how people actually use the content. Describing how people use content defines the market niche that each type of content occupies, thus explains the content's place in the ecosystem.

The networked media ecosystem differs considerably in possible audience uses for content as online media provide gratification opportunities far beyond those available in the mass media era (Dimmick et al., 2011). In the networked ecosystem, information is abundant and available on demand. Users are empowered to create, maintain and extend social relationships (Castells, 2009; Chen, 2011; Ellison, Steinfield & Lampe, 2007; Gade, 2011). New opportunities have extended users' expectations from networked media. Users expect media to provide them with opportunities to interact with others, and network with like-minded people as well as present themselves

(Ancu & Cozma, 2009: Castells, 2009; Chen, 2011; Ellison et al., 2007; Papacharissi & Rubin, 2000; Park, Kee & Valenzuela, 2009). Studies found that users perceive online media to be providing more gratifications than traditional media. Several studies identified a range of gratifications that users perceive to obtain from online media. Researchers have also identified the gratifications opportunities that online media provide. The gratifications and gratification opportunities, identified in the literature on users' perceptions of online media, represent the total width of online media niches that different categories of online media seek to occupy.

Primarily two theories—Media System Dependency Theory and Uses and Gratifications—are used to examine why people use media (Patwardhan & Yang, 2003). The Media System Dependency Theory identifies three needs—understanding, orientation and play—that media fulfill (DeFleur & Ball-Rokeach, 1989). This theory suggests that people develop dependencies on specific media to fulfill these needs because information is scarce and media control that scarce information. Literature, however, suggests that information is abundant in the networked media system and users have control over online information (see chapter 2). The Uses and Gratifications Theory does not offer any fixed set of users' needs that media fulfill. This theory rather explains the psychological mechanisms that generate media-related gratifications for people (Katz, Blumler & Gurevitch, 1973). It suggests that people go to different media to gratify different needs (Blumler, 1979; Rubin, 2009). This theory has been a useful tool to identify users' needs of online media (Lin, 2002; Sun et al., 2008). It is a vital component of studies exploring media competition and coexistence (Dimmick, 2003).

To identify the niches of each category of online media content, this study uses a theoretical framework called the Theory of Niche. This theory is rooted in ecology and media economist John Dimmick developed it to examine media competition and coexistence (Dimmick, 2003). The theory of niche suggests that two media are competitors if the users perceive them to be providing the same gratifications. It also assumes that different types of media seek to differentiate their roles in order to secure a niche in the ecosystem and coexist with other media. Failure to differentiate creates competition among media for the same audience, resulting in similar media content that exceeds the demand for that content. The result of supply exceeding demand is the displacement – or elimination – of some media (Dimmick, 2003). The theory also provides different measures of niches that can be used to predict the extent to which different media compete and coexist.

This chapter seeks to explain how media compete and coexist from the perspective of the audience. Together, chapters 3 and 4 then create a framework for plotting the media ecosystem, combining the motives of content creators and platforms with the uses and gratifications audience members seek in media use.

The chapter has been organized in the following way. It reviews literature on why people use media as well as why people use online media. It then discusses the gratification opportunities in the networked ecosystem, followed by a review of the literature about the gratifications that users perceive to be obtaining from online media. It then provides the theoretical framework—the theory of niche—used in the study. Finally, it provides a summary of chapter 2, 3 and 4 that leads to a set of hypotheses and research questions.

Why People Use Media

Two theoretical approaches—Media System Dependency (DeFleur & Ball-Rokeach, 1989) and Uses and Gratifications (Katz et al., 1973)—are prominent in studies exploring what motivate people to use media (Patwardhan & Yang, 2003).

Media system dependency (MSD). The MSD, also known as dependency theory, suggests that the media system lives within a network of interrelated social systems. Therefore, studies of media and audiences should be done in the context of broad social systems. The dependency theory assumes that the interrelationships between audiences, media and society determine why people use media and what media can provide users (Ball-Rokeach & DeFleur, 1976). The theory explains media dependency at two different levels: individual level (micro) and societal level (macro). The individual level dependency, which focuses on relationships between individuals and media, suggests that individuals use specific media that help them achieve their goals. Meanwhile, the societal level dependency suggests that the larger social system (e.g., the government, economy) determines what products media can disseminate as well as the extent to which individuals can use media products (for instance, a poor communication system may be an obstacle to accessing media products). At the individual level, the core assumption of the theory is that the more an individual depends on specific media to meet his/her needs, the more important that media will be in an individual's life. At the societal level, the assumption is that "as societies grow more complex, and as the quality of media technology improves, the media continuously take on more and more unique information functions" (Ball-Rokeach & DeFleur, 1976, p. 6).

DeFleur and Ball-Rokeach describe dependency theory as an "ecological theory," which views the media system as part of an organic societal structure and explains how the broader system affects behavior of media system and audiences. The relationship between parts (e.g., audiences, media and society) depends upon goals and resources of each component of the larger system.

The dependency theory suggests that two fundamental motivations—survival and growth—drive human beings to achieve three primary goals: understanding, orientation and play (DeFleur & Ball-Rokeach, 1989). Each of these goals has an individual and a social dimension. Human beings want to understand themselves (self understanding) as well as their social environments (social understanding). They then use these understandings to orient their actions (action orientation) and interactions with others (interaction orientation). Also, human beings need play for fantasy-escape from problems and tensions (solitary play) as well as for learning social norms and values (social play). "In our play we express ourselves and our cultures, such as in dance, sport, ceremony, and celebration" (DeFleur & Ball-Rokeach, 1989, p. 306).

Understanding dependencies on media is based on cognitive needs of human beings such as interpreting meaning and acquiring knowledge. Self-understanding dependency derives from individuals' goals to be able to interpret their beliefs, behaviors or personalities. Social-understanding dependency develops when individuals rely on media content to be able to interpret others' behavior, cultures and events. Orientation dependencies are related to human behavior. Action orientation refers to various ways individuals become dependent on specific media for guidance on their behaviors that may include daily life events or more consequential events such as

voting, buying a house etc. Interaction orientation refers to dependencies on media for guidance on communication and behavior while dealing with others (e.g., an employer, a police officer or a clergy). Solitary play dependency grows with attraction towards "aesthetics, enjoyment, stimulation, or relaxation properties of the media content itself" (DeFleur & Ball-Rokeach, 1989, p. 307). Music and movies exemplify such content. Social play dependency refers to media capacity to stimulate play between people (e.g., a couple in a romantic relationship going to a movie). In case of social play, content properties (e.g., aesthetics) may be less important to this couple than going to a movie together (DeFleur & Ball-Rokeach, 1989).

The media system dependency approach assumes that information is scarce and media organizations control the resources required for gathering, processing and disseminating information, which make individuals dependent on media (Ball-Rokeach & DeFleur, 1976). However, the literature reviewed in chapters 2 and 3 demonstrates that the assumptions of information scarcity and media organizations' control over scarce resources are no longer true in the networked media ecosystem. In this ecosystem, information is abundant and average citizens are able to gather, process and disseminate information (Shirky, 2008).

Uses and gratifications (U&G). The Uses and Gratifications Theory explains a socio-psychological process that generates media-related needs among individuals who eventually find and use media to gratify these needs (Katz et al., 1973; Palmgreen et al., 1980). The theory assumes that users are active, goal-directed and independent to choose. It suggests that motivations for using one type of media may be different from the motivations for using another type.

In explanation of the need generating process, Katz et al. (1973) wrote that uses and gratifications studies are concerned with: "(1) the social and psychological origins of (2) needs, which generate (3) expectations of (4) the mass media or other sources, which lead to (5) differential patterns of media exposure (or engagement in other activities), resulting in (6) need gratifications and (7) other consequences, perhaps mostly unintended ones" (p. 510). Katz et al. (1973) listed five social factors that contribute to the generation of people's media-related needs. First, tensions and conflicts produced in social situations put pressure on individuals who then go to media to release tension. Second, individuals learn about various problems through social interactions that demand attention and they go to media to get more information about those problems. Third, individuals learn about potential opportunities that may satisfy their needs and they go to media to get more information about those opportunities. Fourth, individuals develop certain values for themselves through their interactions with society and they go to media to have those values affirmed and reinforced. Fifth, society expects individuals to be familiar with certain media materials. Individuals monitor media for those materials to sustain their membership in the society (Katz et al., 1973).

Accordingly, Katz et al. (1973) listed six media-related needs: (1) a desire for security or satisfaction of curiosity and the exploratory drive, (2) the need for reassurance that one is right, (3) the need to develop one's cognitive mastery of the environment, (4) the need for self-esteem, (5) the need for affiliation and (6) the need to release tension and reduce anxiety over conflict. Katz, Haas and Gurevitch (1973) divided media-related needs into five major categories—cognitive needs, affective needs, integrative needs, personal integrative needs and escape needs. Cognitive needs

refer to one's desire to strengthen knowledge and understanding through information. Affective needs are related to aesthetic and emotional experience. Integrative needs are a combination of cognitive and affective needs. Personal integrative needs refer to the desire to strengthen relationships with friends and family. The fifth need refers to release of tension.

Studies on gratifications that media provide had started long before the Uses and Gratifications Theory was proposed. Lasswell (1948) proposed one of the first frameworks to study uses and gratifications of media. He stated that media generally provide three gratifications: (1) surveillance or fulfilling individuals' desire to know what is going on around them, (2) correlation or interpretation of those events and (3) transmission or sharing information. Later, scholars added more to this list such as entertainment (Wright, 1960) and parasocial interaction (Rubin, Perse & Powell, 1985). The latter refers to an apparent relationship between media users and media characters. Palmgreen, Wenner and Rayburn (1980) argued that dimensions in uses-and-gratifications studies could be reduced to four functions proposed by Lasswell and Wright—surveillance, correlation, transmission and entertainment. Palmgreen et al. (1980) adopted five gratifications dimensions in examining news consumption from television. These are: general information seeking (surveillance stemmed from curiosity about environment), decisional utility (mainly guidance for vote), entertainment, interpersonal utility and parasocial interaction. Blumler (1979) proposed three media orientations—cognitive (surveillance), diversion (escape, entertainment) and personal identity (correlation). Personal identity helps individuals establish a "social location in relation to others through two interactive comparison processes which are derivative of

the media experience" (Palmgreen et al., 1980. p. 168). Ko, Cho and Roberts (2005) suggested that convenience and social interaction should be added to the list of media functions to cover functions of new media.

In sum, both the U&G and the dependency theory seek to explain a similar phenomenon relevant to this study—what motivates individuals to use media. Both theories suggest that individuals are active and goal-oriented and they use media to their own advantages.

To some extent, these two theories are exclusive. The dependency theory, much like an ecological theory, highlights the inter-dependency among media, audiences and society and explains how small, medium and large components of society depend on one another's resources to achieve goals. However, the dependency theory does not recognize additional needs that may arise with changes in the media ecosystem (e.g., networked environment, abundant content choices, fragmented audience). Although the dependency framework is still useful, its assumptions may not be as applicable in the network age. For instance, the dependency theory's assumption of media scarcity no longer holds in the networked environment (Chaffee & Metzger, 2001; Hollander, 2008; Lowrey & Gade, 2011). Meanwhile, the U&G theory offers an open-ended approach to identify changing needs and gratifications resulted by changes in the environment of the media ecosystem. According to Dimmick (2003), gratifications occur within domains (e.g., news, entertainment) and cut across media industries. These domains "are aspects of media content or forms of media use which define the substitutes available to satisfy the relevant set of gratification utilities" (p. 30). Dimmick likened these domains with media niches. He suggested that media competition and

coexistence can be understood by examining how different media populations satisfy gratifications within different domains. As this study identifies different types of content and examines their niches in the ecosystem, an open-ended approach like U&G is more appropriate. Niches, in this study, has been examined in terms of the gratifications opportunities and gratifications[2] that users perceive to be receiving from online news and informational media. The next two sections review literature on the gratification opportunities and gratifications that users receive from different types of online media.

New Opportunities in the Changing Media Ecosystem

Digital technologies and the Internet provide users with more opportunities, increasing their gratification expectations of online media. Dimmick et al. (2011) noted that individuals prefer online media to traditional mass media because of the superiority of online media in supplying news and information "at the times and places and in the formats compatible with consumer needs" (p. 180). Mobile technologies (e.g., tablets and smart phones) enable individuals to use online media "anytime, anywhere, in any modality—audio, video, graphics, or text" (Dimmick et al., 2011, p. 177). In the changing ecosystem, users have more choices and they are able to create, maintain and extend social relationships through media (Castells, 2009; Gade, 2011). For instance, individuals use radio or CD players when they commute by car. They watch television at home. If they have a smart phone with Internet connection, they can access information at different locations and times. Van der Wurff (2011) identified eight attributes of networked media that enhance gratifications: (1) convenience, (2)

[2] Gratification opportunities and gratifications are two different concepts discussed later in the section on theoretical framework.

readiness, (3) up to date, (4) diversity of contents, (5) reliability, (6) low cost, (7) depth and (8) surprising. Lowrey and Gade (2011) noted that the Internet represents a virtual library of news and information. They call this new phenomenon "a news-on-demand marketplace" (p. 3). Bardoel and Deuze (2001) identified four opportunities that the Internet provides to publishers—interactivity, customization of contents, hypertextuality and multimediality. The Internet has taken the interaction between content producers and consumers to an unprecedented level and blurred the differences of their roles. A handful of editors alone no longer determine the importance of content. Journalists and citizens can now share facts, ideas and perspectives (Jarvis, 2007). Audience members now play a role in determining which content is worth publishing and which is not. Along with innumerable choices, the Internet also enabled readers to customize their information consumption. For example, sports lovers can get sports news in their email. In the pre-Internet era, this was impossible and media products would come as a bundle (for more on bundling, see chapter 2, page 18). The Internet has freed media consumers by facilitating individual-level control of information (Lowrey & Gade, 2011) as the networked media environment is teeming with millions of media. Users are able to choose what interests them from countless media entities in the networked ecosystem.

The networked media ecosystem does not only offer new gratification opportunities, it also expands the range of needs online media are believed to fulfill. To understand the extent to which different online media compete and coexist, the new needs must be taken into account. Applying the uses and gratifications approach, several studies have examined audience perceptions to identify those needs that they

perceive to receive from online media. These studies are useful because of the openness of the uses and gratifications approach to changes.

Uses and Gratifications of Online Media

As gratification opportunities and media choices are increasing, users' motivations to use media are also expanding. Rafaeli (1986) conducted one of the earliest studies examining motivations to use the Internet. Rafaeli examined why individuals use university computer bulletin boards and found diversion, recreation and entertainment as key motivations for using these. Kaye (1998) identified five motives for Internet use: (1) entertainment, (2) social interaction, (3) passing of time, (4) escape and (5) seeking information. In a 2004 study, Kaye and Johnson found people seeking political information online use the Internet for guidance, information seeking/surveillance, entertainment and social utility. Ferguson and Perse (2000) sought to find more specific information about the motives of varying uses of the Internet. They found that the entertainment needs and the need to pass time and relax lead individuals to use entertainment sites while social information needs lead to use of informational sites. Kuehn (1994) proposed that convenience, diversion, development of relationships and intellectual appeal are associated with interactive media use such as the Internet. Eighmey and McCord (2001) found that entertainment and exploration are the primary motivations for computer-mediated communication. They also found that personal involvement and continuing relationships lead people to using commercial websites. Kaye and Johnson (2004) identified five motivations for using online, networked media such as bulletin boards/electronic mailing lists and chat forums: guidance (advices for decision making), information seeking, entertainment

(amusement and relaxation), social utility (reinforce decisions, being equipped for discussion) and convenience. Vickery and Wunsch-Vincent (2007) suggested that individuals use the Internet to express or present themselves.

Stafford, Stafford and Schkade (2004) explored Internet-specific gratifications. They found three major dimensions of media use—two of which were found in studies of television and the Internet while other is only related to the use of the Internet. Two general dimensions that are related to both traditional media and the Internet are: (1) process such as playing with technology and browsing and (2) content gratifications. The dimension that is related only to the use of the Internet is social gratification. Individuals report to receive four gratifications from websites in general—guidance, entertainment/social utility, convenience and social utility (Kaye & Johnson, 2004).

Vincent and Basil (1997) examined if differences of modality of news affect an individual's perceptions about the gratifications any particular media provide. The study found that use of print media, particularly newspapers, is associated with knowledge-seeking or surveillance while the need for entertainment leads to television viewing. Diddi and LaRose (2006) found surveillance and escapism as the most predictable factors to news consumption across media, including cable television, broadcast media and the Internet. Despite claims of these similarities, studies show that the Internet offers something that traditional media cannot provide. Sundar (1999) identified four criteria for the uses of online news—credibility, liking, quality and representativeness. Another study on audience perception about the credibility of online information shows that users consider online information as credible as traditional media information (Flanagin & Metzger, 2000). Althaus and Tewksbury (2000), who explored Internet use

patterns among university students, found that students use the Internet as a source of entertainment.

Individuals use social media (e.g., Facebook, Friendster and Twitter) to reconnect, maintain and create friendships (Chen, 2011; Ellison, Steinfield & Lampe, 2007; Raacke & Bonds-Raacke, 2008), to communicate with friends and peers (Boyd & Heer, 2006; Lampe, Ellison & Steinfield, 2006), and to learn about events (Lampe et al., 2006). In a survey conducted by Raacke and Bonds-Raacke (2008), 96% of the respondents reported that they use social networking sites "to keep in touch with old friends" while 91.1% said they use these sites "to keep in touch with current friends" (p. 171). Only 33.7% people said they use social networking sites to learn about events. Gratifications that people perceive to obtain from social networking sites include ability to pass time, to share problems with others, to be aware of the latest fashion, sociability and social information, learn about others (Bumgarner, 2007; Quan-Haase & Young, 2010). Park, Kee and Valenzuela (2009) surveyed 1,715 college students to examine gratifications received from Facebook groups. Results of a factor analysis revealed four needs for participating in Facebook groups—"socializing, entertainment, self-status seeking and information" (p. 729).

Dunne Lawlor and Rowley (2010) conducted a qualitative study among young people and found that individuals use social networking sites for managing and presenting their identity in an online social context. The study also found that people use these sites to negotiate "the practicalities and difficulties that can arise offline. Bonds-Raacke and Raacke (2010) identified three uses-and-gratifications dimensions for users of social networking websites: (1) the information dimension (gathering and

sharing information), (2) the friendship dimension (sustaining friendship) and (3) the connection dimension (making connections with others). Hanson and Haridakis (2008) conducted a study to determine why YouTube users watch and share news on this video-sharing site. They have found that "viewers of news in a more traditional format were doing so primarily for information reasons; viewers of news in comedy and satire formats were doing so primarily for entertainment. Interpersonal communication motives predicted sharing of news videos on YouTube" (Online, para. 1).

Gratifications that blog users receive from this type of online media include information seeking, surveillance, personal fulfillment, affiliation, entertainment and relaxation (Kaye, 2005). Kaye (2010) conducted a second, similar study to examine if motivations to use blogs have changed over a five-year period. Kaye (2010) found that factors that drive blog uses include anti-traditional media sentiment, guidance, ambience, personal fulfillment, multiple perspectives and specific inquiry. Kaye (2010) suggested blog users substitute blogs for "disliked and distrusted traditional media" (p. 204). Segev, Villar and Fiske (2012) found that entertainment and information seeking are the strongest motivations to use blogs. Chung and Kim (2008) sought to understand why cancer patients use blogs. Surveying 113 respondents, they found four motivations—prevention and care, problem solving, emotion management and information-sharing.

Ancu and Cozma (2009) examined the gratifications individuals receive by accessing profiles of political candidates on MySpace. A survey of voters aged between 18 and 34 shows that desire for social interaction with like-minded people (in terms of political view) is the main factor, followed by information seeking and entertainment

for using online political content. Kim and Johnson (2012) examined why individuals use political blogs and found surveillance/guidance to be the strongest motivation, followed by "expression/affiliation, convenience/information seeking, and entertainment" (p. 99). They found that individuals who are more politically involved are more likely to turn to blogs as they can converse with like-minded individuals. Lawrence et al. (2010) also suggested the subscription to certain political ideology or belief drives people towards particular segments of blogs.

Table 4: List of gratification expectations from online media

Gratifications	Studies
1. Information seeking	Ancu & Cozma, 2009; Bumgarner, 2007; Ferguson & Perse, 2000; Hanson and Haridakis, 2008; Kaye, 1998; Kaye, 2005; Kaye & Johnson, 2004; Park, Kee & Valenzuela, 2009; Kim & Johnson, 2012; Quan-Haase & Young, 2010; Raacke & Raacke, 2010
2. Interaction	boyd & Heer, 2006; Hanson & Haridakis, 2008; Kaye, 1998; Ko, Cho & Roberts, 2005; Lampe, Ellison & Steinfield, 2006, Raacke & Raacke, 2010
3. Developing and maintaining relationships	Chen, 2011; Ellison, Steinfield & Lampe, 2007; Kuehn, 1994; Raacke & Bonds-Raacke, 2008; Raacke & Raacke, 2010
4. Entertainment	Althaus & Tewksbury, 2000; Ancu & Cozma, 2009; Eighmey & McCord, 2001; Ferguson and Perse, 2000; Hanson & Haridakis, 2008; Kaye, 1998; Kaye, 2005; Kaye & Johnson, 2004; Park, Kee & Valenzuela, 2009; Kim & Johnson, 2012
5. Utility (Guidance)	Kaye & Johnson, 2004; Bumgarner, 2007; Quan-Haase & Young, 2010; Kaye, 2010
6. Surveillance	Kaye & Johnson, 2004; Kaye, 2010; Kim & Johnson, 2012
7. Self-status seeking	Park, Kee & Valenzuela, 2009

Literature also suggests that online media provide new gratifications (e.g., interaction, development and maintenance of relationship) that the mass media do not provide. These studies show the importance of the U&G approach in identifying media choices by individuals in a changing media environment. An understanding of how individuals choose to use Web content is the first step to understand how different types of online news and informational media position them in the networked media ecosystem. The U&G approach, therefore, remains a vital component of the theory of niche (Dimmick, 2003) that informs this study. On the basis of media choices identified by the U&G approach, the theory of niche explains how different media compete and coexist in the ecosystem. The next section explains the theoretical framework for the study.

The Theory of the Niche

The theory of the niche explains how various media compete and coexist in an ecosystem. Rooted in ecology, John Dimmick has developed this theory to study media competition (Dimmick, 1985; Dimmick & Rothenbuhler, 1984). The theory of niche suggests that each type of media must have a differentiated function to have a niche in the ecosystem. An ecosystem is a set of interconnected entities or populations within an environment, in which each population plays a differentiated role to survive (Jordan & Scheuring, 2004; Logan, 2007). This differentiated role ensures a certain population to have a place or niche in the ecosystem. Dimmick (2003) suggests that the media system is similar to an ecosystem in which different media populations play different roles to survive. Failure to differentiate these roles results in competition among media. If two different media perform exactly the same function in the ecosystem, one with

competitive superiority will displace the inferior one. Dimmick (2003) defined media function as gratifications that users perceive to obtain from different media. So, if audience members perceive two different media to be providing the same gratifications, the inferior of these two media faces a risk of being displaced. The theory of niche employs the uses and gratifications approach to identify media roles or perceived gratifications. Dimmick (2003) identified gratifications and gratification opportunities as key dimensions that are useful to predict media competition. These dimensions "represent the needs served by media and are the basis on which media are selected by their patrons" (p. 29).

According to Dimmick (2003), gratifications refer to fulfillment of specific needs such as entertainment, surveillance and social interaction as discussed earlier in this chapter. Users may consider one type of media a better source for entertainment, view another type better for surveillance, and regard yet another type ideal for social interaction. Gratification opportunities are attributes of a medium relating to its content, time and space availability. Dimmick et al. (2011) defined gratification opportunities by three elements: "(1) the choices of content available to the consumer, (2) the variety of time periods in which the content is available and (3) the number of spatial locations in which content is accessible" (p. 180). Dimmick (2003) conceptualized gratification opportunities of a particular medium on the basis of users' abilities to comprehend its contents and access the medium at various times and places. "A medium that offers more of a given content type more often provides a greater array of gratification opportunities to the audience" (Dimmick et al., 2004, p. 23). Van der Wurff (2011) identified eight online gratification opportunities that affect users' accessibility to

certain media. They are convenience, immediacy, readiness, diversity, reliability, cost, depth and surprise. As the uses and gratification literature has identified, online media as a whole provide several gratifications (e.g., information, interaction, development and maintenance of relationship, entertainment etc.). There are several gratification opportunities on the basis of which different media may vary. For instance, some websites are more convenient to use than others, some provide information faster than others (immediacy), while some provide more diverse content than others.

Dimmick (2003) developed three measures of niche that can predict the extent to which a media outlet satisfies a particular gratification, identify overlaps between two media in terms of the gratifications they provide, and identify the superior media. These measures are called: niche breadth, niche overlap and competitive superiority.

Niche breadth refers to the range of gratifying attributes (e.g., information about community members, information about politicians, information about government) that a medium provides to consumers. Dimmick (2003) defined niche breadth as a "measure of the area of a niche along a particular resource dimension or axis, such as gratifications, gratification opportunities" (p. 37). Resource dimensions for media may also include time, consumer spending and advertising dollars (Dimmick, 2003). Niche breadth for different resource dimensions may be conceptualized differently (this study examines niche breadth on gratifications and gratification opportunities dimensions). For instance, niche breadth on the gratifications dimension refers to the total amount of gratification users perceive to receive from a particular media type on a range of gratifying attributes (e.g., entertainment, surveillance). Similarly, niche breadth on the gratification opportunities dimension refers to the number of gratification opportunities

that users perceive to receive from a particular type of media on a range of attributes (e.g., convenience, diversity of content). Niche breadth on other dimensions (e.g., time, consumer spending) may be conceptualized in various ways. Niche breadth on consumer spending, for example, may be defined by the age range of people paying to use certain media (e.g., websites for people aged between 18 and 30, or 30 and 60, or 25 and 60 etc.), gender (websites for male only; websites for female only; websites for both male and female) or other demographic characteristics (e.g., race, education level etc.). As the definition of niche breadth indicates, some media may have broader niches than others. For example, a website with content focused primarily for male audiences has a narrower niche than one with content targeting both males and females on gender dimension. Dimmick (2003) noted, "Specialist populations have relatively narrow niches, whereas generalist populations have rather broad niches" (p. 37).

Niche overlap refers to similarities between two media as perceived by the audience. Niche overlap has been conceptualized as "ecological similarity between two populations" (Dimmick, 2003, p. 37). It measures "the relationship between populations in terms of the similarity or differences in their resource utilization patterns" (p. 37). In biology, niche overlap occurs when two different species share the same space. In terms of gratifications and gratification opportunities provided by media, niche overlap refers to the extent to which two populations (e.g., mainstream media and alternative media) provide similar attributes of perceived gratifications and gratification opportunities. When resources are limited, niche overlap indicates competition. "The greater the magnitude of the overlap measure the stronger the competition" (Dimmick, 2003, p. 37). Studies in biology suggest that populations whose niches overlap strongly cannot

coexist (Hardin, 1960; MacArthur, 1972; Ricklefs and Miller, 1999; cited in Dimmick, 2003). Populations evolve differences in niche that lowers the overlap and allows coexistence. In case of failure to differentiate, populations that are competitively superior survive.

Dimmick (2003) defined competitive superiority as the capacity of a medium or a media population to provide greater gratifications than its competitor(s). In terms of media competition, McCombs (1972, p. 33) explained competitive superiority although he did not mention the term: "If one conceives of a mass medium as serving some social or psychological need of each individual in its audience, then the appearance of another medium that serves that need better (according to some criterion of communication performance) will result in shifts among the audiences." Dimmick (2003) likened the term competitive superiority to relative advantage—one of five attributes that predict the rate of adoption of an innovation—which refers to "the degree that an innovation is perceived as being better than the idea it supersedes (Rogers, 1983, p. 213). Put it in the context of this study, when two types of content are compared on any dimension (e.g., gratifications), one that scores higher has competitive superiority over the one that scores lower on that particular dimension.

In sum, niche breadth refers to the extent of niche of a particular media population along a resource dimension. Niche overlap refers to the extent to which two media populations are similar or different in terms of functions as perceived by audiences. Competitive superiority refers to the capacity of one media population to serve a function better than its competitor.

Several studies used the theory of niche to examine media competition. Dimmick, Patterson and Albarran (1992) examined competition between the cable and broadcast (TV and radio) industries by analyzing niche breadths and niche overlap on advertising revenue from McCann-Erickson, Inc., a global advertising agency network. They calculated breadths and overlaps for 10 years from 1980 to 1989. The study found that TV had the highest breadth during this period of time while cable television had the lowest. It also found that the niche breadths of TV and cable rose during this period while breadth of radio remained nearly the same during the beginning and the end of that 10-year period. The overlap measures show that cable and radio had the lowest overlap while television and cable had the greatest overlap.

Dimmick, Kline and Stafford (2000) examined competition between e-mail and telephone on gratifications and gratification opportunities dimensions. The study found that 48% people were using telephone less since they had adopted e-mail. E-mail was found to have greater breadth than telephone on the gratifications dimension and narrower breadth on the gratifications opportunities dimension. However, niches of telephone and e-mail did not overlap strongly. Therefore they were not close substitutes, meaning that e-mail would not displace telephone completely although the study found partial displacement of telephone by e-mail.

Li (2001) used the theory to examine media competition in Taiwan. Li analyzed competition among television news, electronic news and newspaper news on three dimensions—cognitive gratifications (e.g., information to improve self and take decision), efficiency and surveillance (e.g., know what others doing), gratification opportunities (e.g., time, diversity) and proactivity (ease of checking previous

information, ease to complain). The study found strong competition between electronic news and television news on all four dimensions. The results also suggest that television had the broadest niches and newspaper the narrowest.

Dimmick, Chen and Li (2004) applied the theory of niche to study competition between the Internet and traditional news media. The study examined competition only on the gratification opportunities dimension. A telephone survey with 211 respondents in a metropolitan area in Ohio found that the Internet had a displacement effect on traditional media including television and newspapers. The study found "a moderately high degree of overlap" between the Internet and traditional media on the gratification opportunities dimension (p. 19) and the Internet had the broadest niche on this dimension.

van der Wurff (2011) applied niche theoretical framework to examine the extent to which "news media displacement, or substitution, is a function of the degree to which news media are functional equivalents" (p. 139). A survey of university students found that substitution of news media does not depend on functional equivalence. van der Wurff found this on three dimensions—gratifications, gratification opportunities and content.

In sum, the theory of niche in the U.S. and abroad. The next section summarizes the literature reviewed, restates the research problem and poses a set of hypotheses and research questions in light of the theory of niche.

Research Problem, Hypotheses and Research Questions

As discussed in chapter 2, the media ecosystem has transformed from 'mass' into a networked ecosystem. Unlike the mass media ecosystem that was dominated by few mass media organizations, numerous media outlets created by individuals, organizations as well as large institutions populate the networked media ecosystem (Castells, 2009; Chaffee & Metzger, 2001; Lowrey & Gade, 2011). Media choices are abundant and the audience is fragmented (Dimmick et al., 2011). Traditional vertical structure of information flow through a social hierarchy (from institutions to media to citizens) has flattened (Friedman, 2006). More gratifications and gratification opportunities are available for audiences (Dimmick et al., 2011; Van der Wurff, 2011). Taken together, the networked media ecosystem represents a very complicated environment. Therefore, the purpose of this dissertation is to create a typology of online news and informational media and examine how different media types determine their niches in this complicated media ecosystem. No such typology of online news and informational media currently exists. As a result, researchers did not examine positions of this type of media in the networked ecosystem. Characterization and categorization of online news and informational media is a prerequisite to understand how different media types position themselves in the ecosystem. With this problem in mind, this study seeks to perform two major tasks—(1) create a typology of online news and informational media and (2) indicate how each media type positions itself in the ecosystem from the perspectives of both content creators and the audience. Together, the dissertation helps understand similarities and differences between the content

creators' motivations and the gratifications that the audience seeks from the content. It then begins to show how online media compete and coexist in the ecosystem.

Chapter 3 reviewed literature on Web typologies and proposed a new model of typologies of online news and informational media. In the proposed system, online news and informational media has been categorized by: (1) who creates the content and (2) what the primary functionality of the content is that each type of content creator creates. Four types of content creators and four functionalities of Web content have been identified. Types of online news and informational media are named to identify various content creators and their social affiliations while the four functionalities reflect the content creators' motives revealed in the published content. Four types of content creators are: (1) mainstream media, (2) institutional media, (3) alternative media and (4) user-generated media. The four functionalities are: (1) to inform, (2) to persuade, (3) to mobilize and (4) to self-present. In the model, it has been proposed that primary a functionality of the mainstream media is to inform, while that of institutional media is to persuade, alternative media is to mobilize and user-generated media to self-present. The model also proposes that each type of content creator performs most of the other functionalities to some extent. For instance, mainstream media content also contains attributes meant to persuade (e.g., personalized message), mobilize (e.g., public sphere) as well as self-present (e.g., sense of self).

Chapter 4 focuses on literature on how individuals use Web content. It provides the theoretical framework—the theory of niche—for the study to understand the niche of each type of media content in the market. Literature shows users believe that online media provide additional gratifications and gratification opportunities—two resource

dimensions that are useful in explaining media choices (Dimmick, 2003) and thus identifying niche of different types of online news and informational media in the media ecosystem.

Now, this dissertation needs to test the model of typologies proposed in chapter 3 and then find out the niche of each type of news and informational media in the ecosystem. To perform these tasks, the researcher conducts two different studies that work in conjunction–first a content analysis to test the model of typologies, then a survey of online media consumers to identify the gratifications and niches that each media type occupies. The studies have been designed in relation to the following hypotheses and research questions.

Hypotheses

In the model of typologies, each type of online news and informational media has a primary functionality. This functionality has been made hypothetically on the basis of empirical evidence found in different studies. For instance, literature suggests that mainstream media serve as the primary source of immediate, objective and reliable information (Gibson et al., 1998). It provides fact-based and in-depth content (Saltzis, 2012; McQuail, 1992). They also demonstrate a significant degree of transparency about the process of preparing news and provide multiple perspectives (Albaek, 2011; Karlsson, 2010; McQuail, 1992, Westerstahl, 1983).

Institutional media content is meant primarily to change people's attitudes. They hire communication experts, public relations practitioners as well as journalists to create content using persuasion techniques to promote particular institutions (Clark, 2001; Bogert, 2010). Studies found persuasion dimensions such as logic, emotional appeal,

invocation of obligation and comparison motive in the content institutions create (Brochers, 2006; Palan & Wilkes, 1997).

Alternative media perform information and persuasion functionalities to some extent, but literature suggests that they use information and persuasion techniques to mobilize people for activism (Atton & Hamilton, 2008; Dawning, 2008). Studies found that alternative media content focuses on the public sphere (Donwing, 2008). They prefer ordinary sources to elites sources (Atton & Wickenden, 2005). They encourage the public to create content. They also collaborate with like-minded media and reprint content already published by other media. Alternative media also rely on external evidence to support their content (Bailey et al., 2008).

Literature suggests that most user-generated media are meant to present self (users who create content) in society in a preferred way (Schau & Gilly, 2003; Hyland, 2011; Papacharissi, 2002; Stern, 1999). Schau and Gilly (2003) found users show their association with different signs, objects and places through their own media. They also employ strategies to present themselves in society and manage their self-impression. Stern (1999) found different types of self-expression tones in user-created websites. To some extent, user-generated content also performs some other functionalities such as persuasion and information (Campbell et al., 2014; Kaye, 2010; Kaye, 2010). Based on this evidence, the following hypotheses are proposed:

H1: The "to inform" function is more apparent in the mainstream media websites than other media.

H2: The "to persuade" function is more apparent in the institutional media websites than other media.

H3: The "to mobilize" function is more apparent in the alternative media websites than other media.

H4: The "to self-present" function is more apparent in the user-generated media websites than other media.

Research Questions

The second task of the dissertation is to find niches—niche breadth, niche overlap and competitive superiority—of each type of online news and informational media on the gratifications measures—gratifications and gratification opportunities dimensions. Although the literature reviewed earlier in this chapter identified lists of gratifications and gratification opportunities that users perceive to receive from online media, substantial evidence is not available to make hypotheses about niches of different types of online news and informational media. Therefore, the researcher asks several research questions.

Niche Breadth:

RQ1a: What are the niche breadths of the mainstream media websites on gratifications and gratification opportunities dimensions?

RQ1b: What are the niche breadths of institutional media websites on gratifications and gratification opportunities dimensions?

RQ1c: What are the niche breadths of alternative media websites on gratifications and gratification opportunities dimensions?

RQ1d: What are the niche breadths of user-generated media websites on gratifications and gratifications opportunities dimensions?

Differences

In addition to finding out niche breadths, this study also seeks to find out where the differences are, and if the differences among the four types of online informational media are significant.

RQ2a: Are there significant differences among the four types of online media on the gratifications dimension?

RQ2b: Are there significant differences among the four types of online media on the gratification opportunities dimension?

Niche Overlap:

RQ3a: What is the niche overlap between the mainstream media websites and the institutional media websites on gratifications and gratification opportunities dimensions?

RQ3b: What is the niche overlap between the mainstream media websites and the alternative media websites on gratifications and gratification opportunities dimensions?

RQ3c: What is the niche overlap between the mainstream media websites and the user-generated media websites on gratifications and gratification opportunities dimensions?

RQ3d: What is the niche overlap between the institutional media websites and the alternative media websites on gratifications and gratification opportunities dimensions?

RQ3e: What is the niche overlap between the institutional media websites and the user-generated media websites on gratifications and gratification opportunities dimensions?

RQ3f: What is the niche overlap between the alternative media websites and the user-generated media websites on gratifications and gratification opportunities dimensions?

Niche Superiority:

RQ4a: Which media are superior between the mainstream media websites and the institutional media websites on gratifications and gratification opportunities dimensions?

RQ4b: Which media are superior between the mainstream media websites and the alternative media websites on gratifications and gratification opportunities dimensions?

RQ4c: Which media are superior between the mainstream media websites and the user-generated media websites on gratifications and gratification opportunities dimensions?

RQ4d: Which media are superior between the institutional media websites and the alternative media websites on gratifications and gratification opportunities dimensions?

RQ4e: Which media are superior between the institutional media websites and the user-generated media websites on gratifications and gratification opportunities dimensions?

RQ4f: Which media are superior between the alternative media websites and the user-generated media websites on gratifications and gratification opportunities dimensions?

In sum, the four hypotheses regarding the primary functionalities of content creators explain how the content creators are expected to be positioning themselves in the ecosystem. The research questions seek to understand how the audience perceives the position of the content in the ecosystem. As the literature suggests, content creators' perspectives may be understood by analyzing the content attributes while users' perspective could be understood by asking them what gratifications they seek from different types of content.

The next chapter discusses the methods the researcher used to test these hypotheses and answer the research questions.

Chapter 5: Methods

As the literature shows, there are two major components that constitute the media ecosystem—(1) the people or organizations that create content and (2) the audience that uses the content. Any study seeking to map out the media ecosystem must take both of these components into consideration. The central problem of this dissertation proposal is to define the networked media ecosystem. A thorough exploration of this problem requires understanding the perspectives about the media ecosystem of both content creators and the audience. In other words, this problem has two distinct but related dimensions: (1) to understand how content creators seek to position them in the ecosystem and (2) to understand how the audience perceives the place of the content within the ecosystem.

Past research tended to focus on the content creators because a few media organizations used to control the media ecosystem. As the Internet and digital technologies removed the entry barriers to the media ecosystem, only content creators' perspective would not be enough to define this ecosystem. There is even no clear definition of who a content creator is (Bruns, 2009). In the networked media ecosystem, content choices are abundant (Dimmick et al., 2011). The audience is able to choose to consume what it wants to consume (Mitchell, 2014). By its power to choose whether to use or not use the content, the audience plays an important role in determining the position of the content in the ecosystem (Jenkins, 2006). The content would not exist in the ecosystem if it did not have an audience or if no one used it (Dimmick, 2003). Therefore, it is important to have both content creators and users' perspectives to define the media ecosystem.

This study proposes (1) to test the typology of online news and informational media proposed in Chapter 3 and (2) to examine how the audience uses the content or its functionalities. As a result, one study analyzes content to understand content creators' perspective, assuming that the content reveals the content creators' intent and motives through the content itself. A second study examines the users' perceptions about the gratifications they expect from content, assuming that their perceptions influence the position of the content in the ecosystem. This approach helps understand how the content (or intent/motivations exhibited by content creators) fits with the gratifications users say they seek. Together, they begin to describe the networked media ecosystem. These two studies expand the understanding of how content creators interact with the users in the media ecosystem through content, and how this interaction determines media's position in the ecosystem.

The researcher performs a content analysis to test the typology of online news and informational. Content analysis can reveal the characteristics of the content (Holsti, 1969; Riffe, Lacy & Fico, 1998), which begins to explain functions that the content creators intend for the content use (e.g., to inform, persuade, etc.). Content characteristics reflect judgments, decisions about style as well as emphases of the content creator (Riffe et al., 1998, p. 7).

A survey is conducted to examine the audience perspective about the uses of content by asking users what gratifications they seek from various types of content. User perceptions about gratifications explain how users choose media for consumption (Dimmick, 2003). Gratifications "represent the needs served by media and are the basis on which media are selected by their patrons" (p. 29). For media organizations and

industries, gratifications are the "resource axes" that allow them to exist in the ecosystem (p. 29).

The literature in Chapter 3 assisted the researcher to put together a categorization scheme, which leads to a proposed typology of online news and informational media based on who creates the content and what the primary functionality of each type of content creator is. The literature identified four existing categories of content creators and four functionalities of Web content. The content creators are: (1) mainstream media, (2) institutional media, (3) alternative media and (4) user-generated media. The functionalities are: (1) to inform, (2) to persuade, (3) to mobilize and (4) to self-present. Although the literature provides indications about the primary functionalities of all four types of online news and informational media, they need to be tested. The content analysis tests the proposed typology and determines the extent to which each type of online news and informational media performs those four functionalities. Functionalities help understand how content creators position their media within the ecosystem.

The literature in Chapter 4 provides lists of gratifications and gratification opportunities that users perceive to obtain by using Web content. However, literature does not explain which gratifications users perceive to obtain from which media type. Through an audience survey, the second part of the study examines user perceptions about the gratifications they receive from different types of online news and informational media. This helps understand user perceptions about the position of each media type in the media ecosystem. Combined, the content analyses and the survey

indicate elements of the media ecosystem as perceived by both content creators and users.

This chapter defines each method and explains appropriateness and rationale of the methods. It identifies the populations (i.e. for the content analysis as well as for the survey) and provides sampling logics for both studies. It then identifies the measures and operationally defines those measures.

Method for Study 1: Content Analysis

The first study tests four hypotheses. Each hypothesis is an assumption, informed by the literature, about the primary function of one of four types of content (e.g., the "to inform" function is more apparent than other functions in the mainstream media content). These hypotheses are the bases of the typology of online news and informational media proposed in Chapter 3.

The quantitative content analysis method has been used to test these hypotheses. Quantitative content analysis is "the systematic assignment of communication content to categories according to rules, and the analysis of relationships involving those categories using statistical methods" (Riffe, Lacy & Fico, 1998, p. 2). This method is appropriate to understand the media ecosystem from the content creators' perspective because manifest attributes in content indicate motivations behind creating that content (Stempel, 1985). Manifest content provides evidence of antecedent choices, conditions and processes (Stempel, 1985). Quantitative content analysis describes "typical patterns or characteristics" of the data collected and explains news judgment and emphasis (Riffe et al., 1998, p. 2).

The content analysis examines sample content from 20 websites (See Table 5)—five for each of the four categories of online news and informational media—to examine the extent to which each category performs four functionalities and identify each category's primary functionality.

Rationale and procedures for selecting websites. These 20 websites were selected to include all four categories of online news and informational media proposed in the typology in Chapter 3. This sample of websites is purposive, designed to be illustrative of the categories by finding exemplars in each category (Project for Excellence in Journalism, 2009, para. 7). Rationale for using such sample is that the online media landscape is "becoming more diverse-in platform, content, style and emphasis and because media consumption habits are also changing, even varying day to day" (Project for Excellence in Journalism, 2009, para. 6). Riffe et al. (1998) suggested that non-probability sample "must be used" when an adequate sampling frame is not available (p. 84).

Media content studies often use small sample of publications (Esser & Umbricht, 2014; Fuller & Rice, 2014; Harp, Bachmann & Loke, 2014). The use of such sample in quantitative content analysis is also justified when a scholar explores an "underresearched but important" area is explored (p. 85). Drawing a probability sample "may be one of the most difficult aspects of content analysis on the Web" (McMillan, 2000, p. 81). Bates and Lu (1997) noted, "with the number of available websites growing explosively, and available directories always incomplete and overlapping, selecting a true random sample may be next to impossible" (p. 332).

Table 5: List of websites analyzed

Types of Content Creator	Websites
Mainstream Media	1. Newspaper: www.nytimes.com (*The New York Times*) 2. Network Television: www.cbsnews.com (CBS) 3. Cable Television: www.foxnews.com (Fox News) 4. Online News: http://www.huffingtonpost.com (*The Huffington Post*) 5. Radio: www.npr.org (NPR)
Institutional Media	1. Government: http://www.nlm.nih.gov/ (US National Library of Medicine) 2. Religion: https://www.jw.org/en/ (Jehovah's Witness) 3. Non-Profit: www.splcenter.org (Southern Poverty Law Center) 4. Business: www.apple.com (Apple); and 5. Education: http://web.mit.edu/ (Massachusetts Institute of Technology)
Alternative Media	1. www.Alternet.org (Alternet) 2. www.villagevoice.org (Village Voice) 3. http://www.chicagoreader.com/ (Chicago Reader) 4. http://disinfo.com/ (Disinfo) 5. http://www.goodnewsnetwork.org (Good News Network)
User-Generated Media	1. http://www.ilind.net/ (Ian Lind) 2. http://polizeros.com/ (Bob Morris) 3. http://www.mahablog.com/ (Barbara O'Brien) 4. http://thescoop.org/ (Derek Willis) 5. http://supak.blogspot.com/ (Scott Supak)

The websites were selected on the basis of traffic ranks (Alexa.com). The traffic ranks are "based on a combined measure of Unique Visitors and Pageviews" (How are Alexa's traffic rankings determined, n.d., para. 2). Traffic ranks are also known as digital circulation (Fox, 2013). Alexa ranks are updated daily and thus provide the latest information about digital circulations. Circulations were used as a key determinant for selecting newspapers for media content research (e.g., Harp et al., 2014).

Each of the five selected mainstream media websites represents one of five mainstream media sectors: newspapers, network television, cable television, online news and radio (Maier, 2010; Project for Excellence in Journalism, 2009). The Mainstream media have been defined as websites that follow a traditional content publication approach in which mainly professionals create news and information for a broad audience (Deuze, 2003; Hess, 2014). The Mainstream media include websites of legacy media (e.g., newspapers and televisions) as well as online-only media (e.g., *The Huffington Post*). The websites of *New York Times* (newspaper), *CBS* (Network), *Fox News* (Cable), *NPR* (Radio) and *The Huffington Post* (Online news) were selected for analysis on the basis of traffic ranks. Each of these websites topped the rank in its category at the time of selection.

The Institutional media are the websites of institutions (e.g., economic, social, legal etc.) that govern the behavior of individuals within a society (Social Institutions, n.d.). The researcher has selected five institutional media websites on the basis of traffic ranks. Each of these websites belongs to a different category of five primary institutions identified in the literature—government, religion, non-government organization (NGO), business, and education. The website of the US National Library of Medicine (NLM) was the top-ranked government website at the time of selecting websites. The NLM website was selected on the basis of data from https://analytics.usa.gov/. Other top-ranked institutional media websites are: www.jw.org (Jehovah's Witness, a religious institution), www.splcenter.org (Southern Poverty Law Center, an NGO working to fight hatred and bigotry), Apple.com (business), and http://web.mit.edu/ (Massachusetts Institute of Technology, an educational institution).

Alternative media are the websites of oppositional and radical media that work to raise ideas not existent within the mainstream media (Atton & Hamilton, 2008; Lievrouw, 2011). Five alternative media websites were selected from "alternative" category, a sub-category under news category on Alexa.com. Websites that are based in the United States and that publish content in English were selected. The selected websites are: www.Alternet.org (Alternet), www.villagevoice.org (Village Voice), www.chicagoreader.com (Chicago Reader), www.disinfo.com (Disinfo), and www.goodnewsnetwork.org (Good News Network).

User-generated media are the websites of individuals who produce original content outside of professional practices and routines (Vickery & Wunsch-Vincent, 2007). These websites were taken from the weblog category, a sub-category under the news category on Alexa.com. These sites were selected on the basis of four primary criteria that appeared in the literature (Kaplan & Haenlein, 2010; Nip, 2006; Vickery & Wunsch-Vincent, 2007). First, the website must be maintained by a single individual and the content published on the website must be authored by that single individual. Weblogs that have multiple authors were excluded from this category. Second, content must be produced outside of professional practices and routines. Third, the content must be original and demonstrate some creativity. Websites that only provides links to other websites and that offers no original content were excluded. Fourth, the website must have been updated at least once in the three months preceding the download start date (June 1, 2015). Also to be considered for analysis, websites must have been U.S.-based, and must be publishing in English.

Sampling: Constructed week. The constructed-week sampling method (Hester & Dougall, 2007) was used to collect samples of content published over a period of three months from June 1, 2015 to August 31, 2015. One week was constructed (Hester & Dougall, 2007). The constructed-week sampling method provides more representativeness than consecutive sample for news content (Riffe, Aust & Lacy, 1993, p. 133). Connolly-Ahern, Ahern and Bortree (2009) found that "constructing weeks on a quarterly basis provides more representative samples than constructing weeks on a full-year basis for some categories" (p. 862). Studies (e.g., Connolly-Ahern et al., 2009; Hester & Dougall, 2007) also found that constructed week sample is superior to simple random sampling or consecutive day sampling.

Choosing the days. Following Hoffman (2006), the researcher used random numbers to select days for the constructed week. Many websites are updated frequently and content may vary from hour to hour. To accommodate this, the researcher downloaded and archived articles at the same time on each day of the constructed week. Following the study of Hoffman (2006), 1:30 a.m. (EST) was selected as content download time. "This allows for maximum comparability" among websites publishing news and information (p. 74).

Choosing the stories. Top five stories of the sample websites on each day during the constructed week were downloaded and then analyzed. Each individual story is a unit of analysis (Hoffman, 2006). Top stories are defined by their placement towards the upper left-hand side of homepage screen (below the must head). This definition derives from studies (Eyetracking the news, n.d.; Ha & James, 1998; Nielsen, 2010a, Nielsen, 2010b) showing that online users spend significantly more time on the

upper left-hand side than on other parts of a webpage. Nielsen (2010a) found that 80% of users' time is spent on information posted at the upper part of a website. Nielsen (2010b) found that users' attention leans left with 69% of users' time spent on the left half of a page. An eye-tracking study by the Poynter Institute shows that online readers' eyes are fixated first on the upper left corner of a page and then hover around that area before going to the right (Eyetracking the news, n.d.). Home pages are the home to top stories as users get their first impression about a website from the homepage and then decide whether they will continue browsing (Ha & James, 1998).

To determine top stories in this study, two basic rules were applied: (1) stories on upper segments of a website are more important than stories on lower segments, and (2) stories on left-hand side columns are more important than stories on right-hand side columns. Segments (e.g., upper segments) are defined as horizontal partitions of webpages that are separated by horizontal lines across two or more columns. To find top stories, coders go to the upper most segment of a website and start looking from the top of the left most column in that segment. The story placed on top of the left most column in the upper most segment was coded first. To find more stories, coders scanned the left most column down to the bottom of that segment. If five stories were not available in that column, coders looked at the next column (to the right) and then to the next column until five stories were found. If five stories are not found in all the columns in the upper most segment, coders looked at the following segment and follow the same procedure as the first segment until five stories are found.

Measurements. The content analysis examines the dimensions of four functionalities of online news and informational media: to *inform*, to *persuade*, to

mobilize and to *self-present*. Several dimensions of each of the four functionalities have been identified. The "to *inform*" functionality is defined as educating the public about what is going on in society with immediate, objective and detailed information about important issues and events (McQuail, 1992; Peterson, 1956; Westerstahl, 1983). The "to *persuade*" functionality refers to content attributes used with the aim to change user attitudes in intended ways (Deighton, Romer & McQueen, 1989; Perloff, 2003). The "to *mobilize*" functionality is defined as Web activism in which content is created in order to mobilize people for civic action (Atton, 2009; Bowman & Willis, 2003; Downing, 1984). Finally, the "to *self-present*" functionality refers to when individuals create and publish content about self in order to create a social image of self (Goffman, 1959; Jones & Pittman, 1982). This section explains how the researcher has operationalized these four functionalities.

***To inform*.** This functionality measures the extent to which the content is immediate, objective and detailed that aims to educate the public about important issues and events. Five dimensions of this functionality identified in the literature—immediacy, fact-based, authenticity, multiple perspectives and transparency—were operationalized to measure this functionality (See Table 6; for more please see the codebook). *Immediacy* was operationalized by timeliness. Following Lacy et al. (2010) study, each eligible story was coded for timeliness at four levels: (1) story is more than 14 days old; (2) eight to 14 days old; (3) two to seven days old; and (4) less than 24 hours old.

The *fact-based* measure was operationalized by using lead (or intro) that puts hard facts first (Esser & Umbricht, 2014). Fact-based means that the information is

based in facts (i.e., answers to who, what, when and where). Fact-based leads are not literary or narrative story intros. This was measured at three levels: (1) opinions appear before facts; (2) two or less facts appear before opinions and (3) three or more facts (All of Who, What, When and Where) are visible before opinions.

Table 6: Operationalization of "To Inform"

Measure	Dimensions	Operationalized By
To educate the public about what is going on in the society with immediate, objective and detailed information about important issues and events.	(1) Immediacy	Timeliness (Lacy et al., 2010)
	(2) Fact-based	Hard-facts-first (Esser & Umbricht, 2014)
	(3) Authenticity (Hayes, Singer & Ceppos (2007)	Expert sources (Demers, 1996; Esser & Umbricht, 2014)
	(4) Multiple expert perspectives	Presentation of multiple—differing views (Esser & Embricht, 2014)
	(5) Transparency	Openness about the process news is produced (Karlsson, 2010)—No use of anonymous or unspecified sources

Authenticity was operationalized by the use of expert sources. Freedman, Fico and Durisin (2010) clarify "Experts are among those sources broadly assumed to be both credible on some issue or aspect of the campaign and removed from the partisan outcomes relevant to their expertise" (p. 21). Expert sources include three categories of sources: technocrats (educators, economists, academics, scientists, engineers and researchers); capitalists (business owners, company executives, employers, corporations, companies, businesses, and banks); and bureaucrats (government

officials) (Demers, 1996). Three dichotomous variables and a stand-alone variable were used to code this dimension. The dichotomous variables are: (1) use of technocrats as source; (2) use of capitalists as source; and (3) use of bureaucrats as source. The stand-alone variable with values ranging from 0 to 3 adds up the values obtained from the three dichotomous variables. Each category of sources (e.g., technocrats, capitalists, and bureaucrats) represents a unique perspective. So, the more categories of these sources are used in an article, the more perspectives the article is believed to provide. Based on this logic, *multiple perspectives* is operationalized by the presentation of sources from multiple categories defined in the previous dimension called *authenticity and depth in analysis*. If two or more types of sources mentioned above were used, an article is considered to have multiple perspectives. *Transparency* was operationalized by the use of no anonymous/unspecified source. This variable was coded at three levels: (1) all sources are anonymous; (2) some sources are anonymous; and (3) all sources are identified (Tahat, 2015).

To persuade. This functionality measures the extent to which the content is aimed at changing users' attitudes. Five dimensions of persuasive content that are used to change attitudes were identified from the literature. They are personalized message (phatic expression), logic (tempt with rewards/threats), emotion, normative appeal, and comparison motive (See Table 7; See the codebook for more details). *Personalized message* was operationalized by uses of second person ("You" or "Your") by authors. Persuaders often use second person to emphasize a strong relationship between them and users, as people are more likely to be persuaded by those who are closer to them (Roberto et al., 2010; Sypher, Russo & Hane, 2002).

Table 7: Operationalization of "To Persuade"

Measure	Dimensions	Operationalized By
This functionality refers to content attributes used with the aim of changing user attitudes in intended ways.	(1) Personalized message/ Phatic expression	Use of informal words or expression(s) that are usually used with friends or people close to you (Nord, 2008); Use of second person "You" (Roberto et al., 2010)
	(2) Logic: Tempt with rewards/threats	Presence of words containing offers or threats (Palan & Wilkes, 1997; Roberto et al., 2010)
	(3) Emotion (tone)	Use of words that express anger, happiness, sadness (Palan & Wilkes, 1997)
	(4) Normative appeal	Use of modal verbs "Should" or "Could" that stresses obligation (Palan & Wilkes, 1997)
	(5) Comparison motive	Use of testimonials

Nord (2008) suggests that personalized messages "look or sound as if they were part of ongoing communication between people who have known each other for some time" (p. 283). Examples of personalized messages are: "You want to start your job search in an absolutely relaxed way? Why don't you get cracking right away: just deposit your application on our website" (From Nord, 2008, p. 283). The use of second person from sources (attributed quotes or paraphrases) is not considered personalized messages. This variable is measured at ratio level. Words like 'You' and 'Your' were counted up to three times in an article.

Logic was operationalized by the use of words containing offers for rewards or threats with losses if the offer is not accepted. Scholars found that persuasive messages might be framed in terms of the logic of gains or losses (Tversky & Kahneman, 1981). They found that people prefer risks (e.g., double-or-nothing after losing a bet) when choices are framed in terms of losses, and avoid risk when choices are framed in terms of gains. For example, a message attempting to persuade physicians to start using a new test for chronic kidney diseases (CKD) could look like this: "Successful detection of CKD will help patients save money, experience greater freedom in diet and lifestyle"; "Failure to detect CKD will lead to increased expenses, restrictions in diet and lifestyle…." (from Roberto et al., 2010, p. 109). Three dichotomous variables and a stand-alone variable were used to measure this dimension. The dichotomous questions are: (1) Does the author or any attributed source in an article offer rewards to the audience for an action favorable to the author or the source? (2) Does the author or any attributed source in an article warn the audience against action, product or idea not favorable to the author or the source? (3) Does the author or any attributed source in an article warn the audience of negative consequence of not acting in a way intended by the author or the source? The stand-alone variable with values ranging from 0 to 3 adds up the values obtained from the three dichotomous variables. *Emotion* was operationalized by explicit expression of emotion such as happiness, sadness, anger, surprise etc. through uses of emotion words by authors. Emotion words are defined as: (1) words whose meanings are affective, and (2) words whose meanings have pleasantness or unpleasantness and/or arousal components (Altarriba & Bauer, 2004, p. 392). A total of 38 emotion words were searched in the content units using a macro—a

set of instructions that perform a particular task intended by its user. The list of emotion words was made on the basis of two lists provided by Altarriba and Bauer (2004), and Altarriba, Bauer and Benvenuto (1999). The lists that these authors used contain some words that can be both emotional and rational. In this study, words that are purely emotional were used. The macro used in this study was designed to highlight the emotion words. The purpose of the use of macro was to make sure that coders did not rely solely on their memories to find emotional expression in the content. In persuasive messages, "use of emotional appeals and content to attract and maintain attention, persuade, and to entertain is common" (Lang, Dhillon & Dong, 1995, p. 313). Several studies (e.g., Tan, 1986; Newhagen & Reeves, 1992) found that emotional messages are persuasive and get more attention. This measure was measured at three levels: (1) no emotion expressed; (2) emotion expressed by a source (quotes, paraphrase); and (3) emotion expressed by the content creator. *Normative appeal* was operationalized by the use of two modal verbs—should and could—that stress obligation or personal responsibility (Bresnahan & Zhuang, 2012; Guttiman & Ressler, 2010). Normative appeal, rooted in social values, is often attached to persuasive messages (Bresnahan & Zhuang, 2012) to have greater impacts on users. Examples of normative appeals are: "I need a new laptop and it could be a birthday present for me" (from Mallalieu, p. 190); "We believe that all people should have access to lifesaving medicines". Guttiman and Ressler (2010) suggest that normative appeals are highly common in health communication campaigns. The variable for normative appeal was measured at three levels: (1) Words "should" or "could" has not been used by either content creator or source; (2) Words "Should" or "Could" used by source (quotes, paraphrase); and (3)

Words “Should” or “Could” used by the content creator. *Comparison motive* is operationalized by the use of testimonials—a statement by a source such as a celebrity or a present consumer of a product of service (not by the content creator) that urges audience to take action in a manner preferred by the message creator. This is a dichotomous variable.

To mobilize. This functionality measures the extent of citizen contribution to creating content as well as the extent to which the content is aimed at mobilizing people for civic action. Six dimensions of this functionality were identified from the literature. They are: public sphere, call to action, ordinary source, content creation by the public, repackaging (collaboration), and external support (See Table 8; See Codebook for more details).

Much of the social activism involving citizens revolves round *public sphere* issues (Downing, 1984; Rauch, 2007). *Public sphere* was operationalized by coverage of items that include items that include government, diplomacy, healthcare policy, education, social services, crime and justice, land use, transportation, the environment, and social protest, or activism (Beam, 2003). This is a dichotomous variable. *Call to action,* the second dimension of the “to mobilize” functionality, refers to content that goes beyond implicit persuasive attributes (e.g., logic, emotion) and directly asks citizens for action (e.g., protest, resistance etc.) (Atton & Hamilton, 2008). *Call to action* is operationalized by the use of the action statement—something that urges the audience to take action in a manner preferred by the message creator. Action statements are identified by the use imperative verbs that tell people what to do (e.g., act fast, join us in the protest, protect the environment). This is also a dichotomous variable.

Ordinary source is operationalized by the use of non-elite sources. Scholars suggest that social activisms are often targeted against the powerful and social elites, and messages created by the activists give voice to ordinary people (Downing, 1984; Harcup, 2003; Massey, 1998).

Table 8: Operationalization of "To Mobilize"

Measure	Dimensions	Operationalized By
Web activism in which content is created to mobilize people for civic action. The motivation of the content creators in this case is for public, civic or communal interests.	Public Sphere	Items about government, diplomacy, healthcare policy, education, social services, crime and justice, land use, transportation, the environment and social protest or activism (Beam, 2003).
	Call to action	Use of imperative verb by content creator
	Ordinary source (Atton, 2005).	Use of people, who are directly involved, as primary source. Look at the first human source used
	Content creation by the public (Atton, 2009; Rodriguez, 2001)	Affiliation of the Author: Is the author an employee of the website publishing the article?
	Repackaging (Atton, 2009; Atton & Hamilton, 2009)	Is the story a reprint from another outlet?
	External support	External links to stories

This was measured at ratio level by counting the number of non-elite sources used in an article. Ordinary sources include everyday people who have no official title and no elected or appointed position related to the issue or topic. Such sources include

eyewitnesses, victims and relatives of victims. Ordinary sources do not include technocrats, bureaucrats or capitalists (defined earlier in this section).

Content creation by the public is operationalized by the relationship of the author with the media outlet that publishes the article. Content aimed at public mobilization is often collected, prepared and distributed by the public (Bowman & Willis, 2003). This variable was measured at three levels: (1) Authored by an employee; (2) Coauthored by an employee and a non-employee and (3) Authored by a non-employee.

Repackaging (collaboration) was operationalized by the use of content already published on a different website. This is a dichotomous variable.

External support is operationalized by connectedness to other websites. Activists need external evidence to justify their actions (Dailey et al., 2008). Lowrey (2006) suggests that the mainstream media are often challenged by bloggers whose websites are linked to multiple related sites. This was measured at ratio level by counting the number of websites connected by external hyperlinks.

To self-present. This functionality measures the extent to which a person discloses information about self through personal websites. Five dimensions of this functionality were identified from the literature. They are: ego, sense of social affiliation, historical self, phenomenal self, and strategic self (See Table 9; See Codebook for more details).

The research has operationalized *ego/sense of self* on the basis of whether the author used the first person "I" in an article. Ego refers to the sense of self, which is expressed by the use of first person "I" (Meltzer, 1964). This was measured at the ratio

level by counting the number of times the word "I" is used. *Sense of social affiliation* provides information about one's social relationships (Papacharissi, 2002). This is also a ratio level variable.

Table 9: Operationalization of "To Self-present"

Measure	Dimensions	Variable(s) for each dimension
This functionality refers to when individuals create and publish content about self in order to create a social image of self.	(1) Ego (Mead; from Meltzer, 1964)	Author's use of first person (singular) "I" in an article
	(2) Sense of social affiliation (Papacharissi, 2002) [Situating self within the social world]	Author's use of first person (plural) "We" "Us" by author in an article
	(3) Historical self: Presentation of Historical Account of Self (Document personal experiences; Antunovic & Hardin, 2013; Ahmad et al., 2013)	Use of Anecdote/Story from author's own life experiences
	(4) Phenomenal self (Jones & Pittman; Collins & Miller, 1994; Schau & Gilly, 2003) (Belief, ideologies, biases)	Use of words disclosing author's belief, ideologies, biases
	(5) Strategic self (Jones & Pittman, 1982) (Ingratiation, Intimidation, self-promotion, exemplification, supplication)	Use of words highlighting any of the following: author's personable qualities, skills, competence, honesty, strengths

Sense of Social Affiliation is operationalized by the author's use of words "We" or "Us" to associate him/herself to a particular group/community/network.

Historical Self is operationalized by the use of use of anecdotes/stories from author's own life experiences. This is a dichotomous variable. This dimension provides information about one's past. Scholars found that information about one's past is important for building trust and forming new relationships (Antunovic & Hardin, 2013).

The researcher operationalized *phenomenal self* by the use of words that disclose the author's belief, ideologies and biases etc. This is also a dichotomous variable. When previous dimensions measure one's ego and social identity, the *self-disclosure* dimension discloses one's phenomenal self. Dainton (2008) defined phenomenal self as a sustained effort to give an account of self, derived from experience, in terms of one's own identity.

Strategic Self-Presentation is operationalized by the use of adjectives highlighting the author's personable qualities, skills, competence, honesty, strengths or weaknesses. This variable was measured at ratio level by counting the number of adjectives referring to the author. This dimension measures one's power augmentation motive (Jones & Pittman, 1982).

Coding. A codebook was developed with descriptions of all variables. As recommended by Wimmer and Dominick (2013), the codebook defines the boundaries of categories with details to ensure reliability of the study.

Coders and training. Two coders, including the author, coded 9% of the content to ensure reliability of the coding. The second coder, a graduate student, had several years of experience as a professional journalist, and was familiar with the process of content creation. Riffe et al. (1998) suggested that multiple coders help "hammer out conceptual and operational definitions that are clearer and more explicit" (p. 120). The

author conducted two training sessions for the additional coder prior to beginning coding. The training sessions were aimed at familiarizing the coder with: (1) the content being analyzed, and (2) the coding procedures (e.g., how many pieces of content a coder may deal with and refreshing coder memory of category definitions). "The familiarization process is meant to increase the coders' comfort level with the content of interest, to give them an idea of what to expect in the content, and how much energy and attention is needed to comprehend it" (Riffe et al., 1998, p. 120). After the training sessions, two coders independently coded a small sample of the content to find out if both coders approach the content from similar frames of references. A third meeting between the coders was held to discuss any remaining issues before both coders finally started coding the content.

Reliability. After the training sessions, 9% of the data was independently coded by each coder for inter-coder reliability check. Kaid and Wadsworth (1989) suggest that between 5% and 7% of the total data is adequate for reliability testing. Cohen's kappa was used to calculate inter-coder reliability. This method shows the level of agreement between two or more coders (Riffe et al., 1998). Cohen's kappa was calculated for all variables except for *timeliness* (immediacy), *author-web relations*, and *reprint*. These three variables were pre-coded by the researcher at the time of downloading contents from the web. Coefficients for Cohen's kappa range from 0 to 1, in which a calculated value of 0.75 or above is acceptable (Wimmer & Dominick, 2013). Capozzoli, McSweeney, and Sinha (1999) suggestd that Cohen's kappa values below 0.40 or so represent poor agreement. Capozzoli et al. (1999) noted, "values between 0.40 and 0.75 may be taken to represent fair to good agreement beyond chance" (p. 6). Cohen's Kappa

values (see Table 10) for most variables were above the acceptable level. The level of agreement among the coders was close to the expected level for three variables—historical account of self, self-disclosure and strategic self-presentation. The second coder worked as a volunteer, and received no incentive.

Table 10: Inter-coder reliability (Cohen's kappa values)

Variable	Cohen's Kappa	Number of Stories (*N*)
Immediacy (timeliness)	Pre-coded	
Intro structure (fact-based)	.75	61
Authenticity (uses of expert sources)	.88	61
Multiple expert perspectives	.86	61
Transparency (anonymous sources)	.79	61
Personalized message (use of second person)	.93	61
Logic (rewards/threats statement)	.77	61
Emotion	.79	61
Normative appeal (uses of should or could)	.90	61
Comparison motive (action statement by source)	.80	61
Public sphere (article topic)	.87	61
Call to action (action statement by author)	.88	61
Ordinary source (use of non-elite source)	.83	61
Content by public (author-web relationship)	Pre-coded	
Repackaging (reprint)	Pre-coded	
External support (hyperlinked websites)	.98	61
Ego (use of first person singular)	.86	61
Sense of social self (use of first person plural)	.90	61
Historical Self	.72	61
Phenomenal Self	.81	61
Strategic Self-presentation	.75	61

Method 2: Survey

While the first study—content analysis—examined how content creators position themselves in the media ecosystem. This second study—a survey of the Internet users in the United States—explored the uses of the content from the audience perspective by asking users what gratifications they seek from various types of online

content. Internet users were defined as individuals who have an active personal email address. A 2011 study by the Pew Research Center found that 92% of online adults use email (Purcell, 2011). This survey builds of off the types of online news and informational media and seeks to match different categories of content with audience perceptions of the gratifications they obtain by using the content. The survey answers a total of four sets of research questions, including questions about niche breadths (e.g., what are the niche breadths of the mainstream media websites on gratifications and gratification opportunities dimensions?), niche overlap (e.g., what is the niche overlap between the mainstream media websites and the institutional media websites on gratifications and gratification opportunities dimensions?) and niche superiority (e.g., which media are superior between the mainstream media websites and the institutional media websites on gratifications and gratification opportunities dimensions?). The fourth set of research questions asks how significant the differences among four types of online news and informational media are.

Surveys are useful when a study needs a large amount of data and seeks to analyze them with inferential statistics (Wimmer & Dominick, 2013). Dimmick (2003) prescribes survey to examine media niches when measured on gratifications and gratification opportunities dimensions. However, one key disadvantage of survey is low response rate. Contacting potential respondents and persuading them to participate has become increasingly difficult (Pew Research Center, 2012). At Pew Research Center, response rate of telephone survey of the general public dropped from 36% in 1997 to 9% in 2012. This decline is evident across all types of surveys across the world (Pew Research Center, 2012). However, it may vary. Reinardy (2011) got 29% response rate

in an online survey of young journalists and Singer (2010) got about 9% in another online survey. Scholars suggest that response rates can be increased in several ways such as: using reputed sponsor, topic with high salience, and easy and simple questions (Dillman, 2010; Fan & Yan, 2010). These guidelines guide the survey for this dissertation.

Sampling and survey execution. Two sampling methods—a probability sample and a convenience sample through Amazon Mechanical Turk—were used to collect data. The goal in choosing a sample was to generate a sample that is representative enough to generalize to the Internet users in the United States. The initial plan was to conduct the survey on a random sample, but the response rate was very low (0.3%). Therefore, a second sampling method—convenience sample—was used to supplement the first sample.

A list of 186 million email addresses of U.S. residents was used as the sampling frame for the probability sample. The list is owned by a company called Email List that sells customized email lists to businesses, organizations as well as individuals. Contacted by the author of this study in late May 2015, Email List agreed to sell a list of 100,000 email addresses drawn randomly from its original list. Random drawing ensures that each of 186 million email addresses has a probability to be selected for this study. Probability sampling "allows researchers to calculate the amount of sampling error present in a research study" (Wimmer & Dominick, 2011, p. 89-90). The respondents (email address holders) were contacted via email and requested to fill the survey online. The email contained a link to the survey. Qualtrics software was used to

collect data through a website (ousurvey.qualtrics.com). Participation in the survey was on a voluntary basis.

Use of email as a survey medium is appropriate when the sample size is large (Michaelidou & Dibb, 2006). It is cheap and easy to handle. Email surveys offer several benefits including lower transmission and collection costs, immediate response and ease of use (Coderre, Mathieu & St-Laurent, 2004). Although there are concerns about response rate of email surveys, studies mentioned in the previous page show that response rate sharply dropped for traditional survey methods such as telephone survey and mail surveys too (Pew Research Center, 2012; Singer, 2010).

From the list of 100,000 emails, 3,967 emails were deleted because of the age criteria (18 to 64) set for participation in the survey. The survey was sent to the remaining 96,033 emails and 29,848 emails were bounced. Qualtrics software lists an email as bounced when the email is rejected by the recipient server. Reasons for rejecting an email by the recipient server include, "the email address doesn't exist, the receiving server has a high security firewall, the receiving mailbox is full, the recipient server is offline, etc." ("Understanding the Mailing History," n. d. line 8). Two reminder emails were sent to 66,185 addresses (96,033 emails minus the bounced emails) following the first email. A total of 294 people started the survey and 201 of them completed the survey with a response rate of 0.3%.

Because of low response rate in the email survey, a total of 901 responses were bought from the commercial survey respondent pool Amazon Mechanical Turk. The recruitment announcement was posted to the MTurk website. Potential participants were provided with an anonymous link to an electronic informed consent and online

survey. Qualtrics software was used to collect data through a website (ousurvey.qualtrics.com). Each respondent received $1.00 for filling the survey on MTurk.

Measurements. This survey examines how the content is used or how the audience perceives the functionalities of content. The audience perception about content functionalities is defined by the gratifications (e.g., information seeking, entertainment) they seek from content (Dimmick 2003). Gratifications was examined on two dimensions—*gratifications* and *gratification opportunities* (For definitions and discussion on these dimensions, please see chapter 4). The gratifications measures explain where, according to the audience, the content fits in the media ecosystem. Perceived gratifications influence the audience decision to use or not to use the content. This decision, in turns, determines the position of the content in the ecosystem (Dimmick, 2003). Dimmick offered formula (e.g., niche breadth, niche overlap) to calculate the extent to which different content categories provide gratifications as well as the extent to which the contents overlap in terms of providing gratifications.

***Gratifications*.** This measures how the users believe the content gratifies their needs (e.g., keep up with current issues, provide specific information of interests, entertains). The measure includes seven types of gratifications identified from the literature: information seeking, interaction, development and maintenance of relationship, entertainment, utility, surveillance, and self-status seeking (e.g., Dimmick et al., 2004; Dobos & Dimmick, 1988; Ellison et al., 2007; Hanson & Haridakis, 2008; Kaye, 2010; Palmgreen et al., 1980; Park et al., 2009; Vincent & Basil, 1997). A total of 25 statements were used to measure gratifications. The statements were drawn from

previous studies. The same set of statements was used for all four types of online news and informational media. Respondents expressed their agreement or disagreement on a five-point Likert-like intensity scale with 1 for strong disagreement and 5 for strong agreement.

Gratification opportunities. Gratification opportunities dimension examines user perceptions about the extent to which website attributes of different types of online news and informational media enhance satisfaction. Gratification opportunities of web content are: convenient, fast, up-to-date, diverse, reliable, in-depth, surprising, interactive, friendly, and worthy of my time (Dimmick et al., 2011; Lacy & Sohn, 2011; van der Wurff, 2011). To measure gratification opportunities, 11 statements were used (For the statements, please see the survey questionnaire). Like gratifications, a five-point Likert-like intensity scale were used.

Finding the Position in the Ecosystem

Positions of media in the media ecosystem are identified using the gratifications measures. Positions are defined by the breadth of gratifications (niche breadth) that a medium provides, the degree of overlaps between multiple media (niche overlap), and relative superiority (competitive superiority) of one medium compared to others (Dimmick, 2003, p. 78). Dimmick developed formula to calculate these niche measures. This study used gratifications measures to calculate niche breadth, niche overlap and competitive superiority of each type of online news and informational media, proposed in Chapter 3. This provides more specific information about the breadth of gratifications that each media type provides and the degree of overlaps between types of online news

and informational media. More importantly, it identifies the area(s) where one type of content functions better than the others.

Niche-breadth. Niche-breadth measures the capability of a medium to gratify a spectrum of needs. These spectrums are dimensions of gratifications (e.g., surveillance, information, entertainment) and gratification opportunities (e.g., convenient, up to date, reliable). Niche breadth scores explain the range (or scope) of gratifications that users perceive they obtain from a type of online news and informational media; the breadth is calculated for each gratification dimension (gratifications and gratifications opportunities).

To calculate the niche breadth for each dimension, several steps are followed (also see formula below): (1) all values (GOn) that each respondent gives to the statements for a dimension are summed; (2) the summed value is then subtracted by the sum of lowest value on the scale being used (Kl; in the scale used in this study, lowest value is 1 and highest value is 5); (3) the value after subtraction (the numerator in formula below) is then divided by the number statements multiplied by the difference between the highest and lowest values of the scale [K(u-l)]. This is the niche breadth for one person; (4) following the first three steps, the breadth for each respondent is calculated and summed; and finally (5) the total value obtained from all respondents is divided by the number of respondents (N). The result of this computation is the niche breadth of a medium on a gratification dimension.

Niche breadth formula:

$$B = \sum_{n=1}^{N} \frac{\left[\frac{\left(\sum_{k=1}^{K} GO_n \right) - Kl}{K(u-l)} \right]}{N}$$

Where…

u,l = the upper and lower bounds of a scale (upper bounds for all scales in this study is 5 and lower bounds is 1)

GO = the value a respondent gives on each statement

N = the number of respondents using a medium (e.g., sample size)

n = the first respondent

K = the number of statements on a dimension

k = the first gratification scale

Niche overlap. Niche overlap measures perceived similarity in gratifications obtained from two types of online news and informational media. To calculate niche overlap, following steps are followed: (1) values a respondent gives on a statement for both media are subtracted (GO_i-GO_j). For example, a respondent circled 3 on blogs and 4 on legacy news media on the statement: up to date. So the subtracted value is 1); (2) similarly, values on all statements in a dimension are subtracted and squared; (3) the obtained value is then divided by the number of statements (*K*) and square-rooted. For example, 10 statements were used in surveillance gratifications dimension; (4) following steps 1, 2 and 3, all respondents' overlap values are calculated and summed; and finally (5) divide the value by the number of respondents (*N*).

Overlap formula:

$$O_{i,j} = \frac{\sum_{n=1}^{N} \sqrt{\frac{(GO_i - GO_j)^2}{K}}}{N}$$

Where…

i, j = medium i and medium j

GO = a gratification obtained rating on a scale for i and j

N = the number of respondents who use both i and j

n = the first respondent

Niche overlap is an inverse measure where low score indicates high overlap and high score indicates low overlap. A "0" score on the equation means the two media overlap completely. This measure is also considered "an index of substitutability or complementarity of two media" (Dimmick, 2003, p. 80). High overlap means two media are substitutes and thus they are strong competitors while low overlap means they are complementary two each other.

Competitive superiority. Competitive superiority measures if one or the other of a pair of media provides greater gratification utilities on a dimension. A significance test is conducted on the superiority scores to determine ability of a media to provide greater gratification. Following steps are followed to measure superiority scores: (1) values a respondent gives to all statements (*K*) in a dimension for one media is compared with the values for the same statements about the other media, and only the higher values for the media, whose niche superiority is being calculated, are summed up ($m_{i>j}$); (2) similarly, all respondents' values for the statements in a dimension are calculated and summed; (3) finally, the total value is divided by the number of respondents (*N*). Superiority is calculated for each dimension of each medium

separately. Finally a significance test (e.g., T test) is conducted to see if the differences are statistically significant.

Competitive superiority Formula $S_{i>j}$:

$$\frac{\sum_{n=1}^{N}\sum_{k=1}^{K}\left(m_{i>j}\right)}{N}$$

Competitive Superiority Formula $S_{j>i}$:

$$\frac{\sum_{n=1}^{N}\sum_{k=1}^{K}\left(m_{j>i}\right)}{N}$$

i, j = medium i and j (for example, i=blogs, j=news websites)

$m_{i>j}$ = the value of a respondents rating for those scale items on which i (blogs) is rated greater than j (news websites) (the sum of the actual values)

$m_{j>i}$ = the value of a respondents rating for those scale items on which j (news websites) is rated greater than i (blogs) (the sum of the actual values)

K = the number of scales on a dimension

k = the first gratification scale

N = the number of respondents who use both i (blogs) and j (news websites)

n = the first respondent

Summary of the Chapter

To define the networked media ecosystem from the perspectives of both content creators and content users, this dissertation proposes two studies: (1) a content analysis to test the typology of online news and informational media proposed in Chapter 3, and (2) a survey of the Internet users in USA to examine how the audience perceives the position of contents in the ecosystem.

On the basis of traffic ranks, a purposive sample of 20 exemplar websites was selected for the content analysis. The constructed-week sampling method was used to select sample content published over a period of six months. Content creators' perspectives on their positions in the networked media ecosystem was measured by the extent to which they perform four functionalities: to inform, to persuade, to mobilize, and to self-present. The content analysis examines a total of 21 dimensions of these four content functionalities.

The survey asked users what gratifications they seek from different types of content. The sample for the survey was drawn randomly. An email list of the sample respondents was bought from an email list company on condition that the company would draw a sample 100,000 email addresses randomly from its database of 184 million email addresses. Two gratifications measures—gratifications and gratification opportunities—were used to examine the audience perception about content functionalities. The data collected through survey were analyzed by niche measures—niche breadth, niche overlap and competitive superiority—to identify the breadth of gratifications of four types of content (identified in Chapter 3), degree of overlaps between types of content, and areas where one type of content functions better than others.

Chapter 6: Results (Content Analysis)

This study comprises a content analysis and a survey to examine the niches of online media in the networked media ecosystem. These two methods merge the intent of the content creators with perceptions of the audience, and begin to show how online media compete and coexist in the networked media ecosystem. Mapping only the intent of the content creators is not enough to describe the media ecosystem, which is not controlled by media organizations alone. Internet users, who control their mediated experiences and have abundance of content choices, play an important role in determining positions of the content in the media ecosystem (Dimmick, 2003; Jenkins, 2006; Tewksbury & Rittenberg, 2012). Therefore, a content analysis and a survey were conducted, which provide the perspectives of both the content creators and the users about the niches of online news and informational media. A total of 700 units of textual content was analyzed to explore the primary functionalities of four types of online media. The content analysis reveals the intent of the content creators, and shows how content creators position themselves in the ecosystem. An online survey of 1,103 Internet users, who are residents of the United States, measures audience perceptions about a spectrum of gratifications and gratification opportunities that online media provide.

This chapter presents findings from the content analysis that tests four hypotheses and a typology of online media. The typology is a multivariate 4X4 matrix (four types of content creators by four functionalities) that explains the extent to which content on each type of media reflects the four functionalities. The four types of content creators are: the Mainstream media websites, the Institutional media websites, the

Alternative media websites, and the User-generated media websites. Four functionalities are: to inform, to persuade, to mobilize, and to self-present. Each of the four hypotheses, tested in this study, proposes a unique primary functionality for each type of online media.

Measures

This study examined 175 units of textual content from each type of online media—totaling 700 units—to measure the extent to which each media type performs the four functionalities. Media type is the independent variable and functionality is the dependent variable. Each functionality is measured as a multivariate construct along an 11-point interval scale. The higher the measure on a scale, the more the content reflects that function. A total of four 11-point scales were created—one for each function. The scales for inform, persuade and self-present constructs comprise five variables each. The mobilize construct has six variables. Each content unit was measured on all four functionality scales. To test the hypotheses, a one-way ANOVA was conducted to find out whether the primary functionality of each media type fits the proposed model.

H1—Primary function of the Mainstream media websites. Hypothesis 1 states that "to inform" function is more apparent in the Mainstream media websites than other types of media. *To inform* means providing people with immediate, objective and detailed information about current issues and events going on in the society. The variables used to construct the inform scale are: immediacy, fact-based, authenticity, multiple expert perspectives, and transparency. To clarify meaning of the hypothesis test, the inform variables have been redefined briefly.

Immediacy. The content was coded in regard to timeliness calculated by subtracting the time of download from the time the content unit was updated most recently. The measure ranges from 0 to 3 with more than 14 days old (0) to less than 24 hours old (3).

Fact-based. Introduction structure (headline, deck, and first three paragraphs) of content was coded in relation to placement of hard facts (e.g., answers of who, what, when and where) and opinions. This measure ranges from 0 to 2 with opinion before facts (0) to three or more facts before opinion (2).

Authenticity. Attributed sources in content were coded in relation to their areas of expertise (e.g., technocrat, capitalist, and bureaucrat). The measure ranges from 0 to 3 with no expert source present (0) to presence of three categories of expert sources (3).

Multiple expert perspectives. This variable looks at the total number of expert source categories, coded for *authenticity variable*. This is a dichotomous variable and its measure ranges from 0 to 1 with less than two categories of expert sources present (0) to two or more categories of expert sources present (1).

Transparency. Transparency is measured by content creators revealing to the audience the identity of their sources attributed in content. The measure ranges from 0 to 2 with all anonymous sources in the content (0) to all sources identified by name and their occupational title or organizational affiliation (2).

H1—Results. An ANOVA test reveals that the Mainstream media websites have a significantly higher mean on the *inform* construct than all three other types of online media (F value = 133.20; $p<.01$). The hypothesis is supported (See Table 11).

Additionally, the findings show that the Alternative media have the second highest mean on the *inform* construct, which is significantly higher than the User-generated media websites and the Institutional media websites. The difference between the User-generated media and the Institutional media websites on this construct is not statistically significant.

Table 11: Inform function by media type

	Main	**Inst.**	**Alt.**	**UG**	F
Inform (Construct)	8.21a	4.21c	6.04b	4.49c	$F(3, 696)=133.20$**
Variables:					
Immediacy	2.99a	1.10c	2.57b	1.30c	$F(3, 696)=229.66$**
Fact-based	1.58a	1.31b	.90c	.58d	$F(3, 696)=44.75$**
Authenticity	1.50a	.66c	.93b	.99b	$F(3, 696)= 36.67$**
Multi-expert Perspectives	.50a	.09c	.25b	.27b	$F(3, 696)=27.95$**
Transparency	1.64a	1.04c	1.41b	1.34b	$F(3, 696)=16.60$**

- Inform construct is measured on an 11-point index with five variables;
- Immediacy measure ranges from '0' to '3'; Fact-based ranges from '0' to '2'; authenticity ranges from '0' to '3'; Multi-expert perspectives range from '0' to '1'; and Transparency ranges from '0' to '2';
- Main=Mainstream media websites; Inst.=Institutional media websites; Alt.=Alternative media websites; UG=User-generated media websites;
- a,b,c: Means with common lowercase letters within a row are not significantly different ($p<.05$) from one another by a Tukey post hoc test;
- *$p<.05$; **$p<.01$

To understand more precisely how the media types differ on *inform* function, ANOVA tests were run on each of the five *inform* variables. Results show that the Mainstream media websites have significantly higher means than other media on all five variables—immediacy, fact-based, authenticity, multiple expert perspectives, and

transparency—in the inform construct (see Table 11). A score of 2.99 (out of 3) on immediacy suggests that almost all of the Mainstream media articles were less than 24 hours old. This indicates that the Mainstream media websites serve as a key source of immediate information. Mainstream media's scores on authenticity (1.5 out 3) and multiple expert perspectives (0.5 out of 1) show that they provide significantly more expert perspectives than other media. The fact that the Mainstream media content is more fact-based, more authentic and more transparent than other media makes Mainstream media content relatively more objective and more reliable. However, there are limits to Mainstreams media's informative functions. Half of the Mainstream media articles do not have multiple perspectives. Further, the Mainstream media averaged 1.58 (out of 2) on the fact-based variable, which indicates that the Mainstream media use facts before opinions as a basis for presenting the information in most stories, but not all stories.

The Alternative media websites have the second highest level of informative content and the second highest means on two variables—immediacy and transparency. A mean score of 2.57 (out of 3) on immediacy suggests that the Alternative media websites publish new content on a regular basis, but some of their top articles are more than 24 hours old. The results show that Alternative sites have the second most transparency, significantly more than institutional sites and slightly (but not significantly) more than the User-generated media. In terms of fact-based-ness, authenticity and multiple expert perspectives, the Alternative media websites rank third. Alternative media's score on fact-based variable (0.90 out of 2) suggests that opinions are presented before facts (who, what, when and where) in a majority of the Alternative

media content. Means on authenticity (0.93 out of 3) and multiple expert perspectives (0.25 out of 1) show that most Alternative media articles provide no more than one expert perspective.

The User-generated media websites have the third most informative content. These websites have the second highest means on two variables with significantly more authenticity and multiple expert perspectives than the Institutional media websites. However, User-generated media scores on these two variables (authenticity mean=0.99, multi-expert perspectives mean=0.27) indicate that these websites rarely provide more than one expert perspective in an article. The User-generated media websites are significantly less fact-based (0.58 out of 2) than all other media. The immediacy measure indicates that a majority of the User-generated media articles (1.30 out of 3) are more than 24 hours old.

The Institutional media have the lowest level of informative content, although this level is not significantly different than the User-generated media websites. This type of media has the lowest means on four out of five variables in the inform construct, and significantly less immediacy, authenticity, multiple expert perspectives, and transparency than all other media. The data suggest that a vast majority of the Institutional web content (M=1.10) is older than 24 hours. The Institutional web content is significantly more fact-based (1.31 out of 2) than the Alternative media websites and the User-generated media websites, but rarely has an expert perspective (0.09 out of 1). The mean on transparency (1.04 out of 2) suggests that that the Institutional media websites use significantly more anonymous sources than other media.

H1 summary. H1 proposed that the Mainstream media websites have statistically significant more informative content than the three other types of media. This hypothesis was supported. The Mainstream media websites have statistically significant higher levels of immediacy, fact-based-ness, transparency, authenticity and multiple expert perspectives. It is worth noting that the Mainstream media's 8.21 in the 11-point *inform* construct is the highest mean among all the means scored by all four types of media on all four constructs. The Alternative media websites have the second most informative content. Alternative media's 6.04 is the highest among Alternative media's means on all four functions.

H2—Primary function of the Institutional media. H2 states that the "to persuade" function is more apparent in the Institutional media websites than other media. To *persuade* is defined as seeking to change users' attitudes with information. The variables used in the *persuade* construct are: phatic expression, logic, emotion, normative appeal, and comparison motive. They have been briefly redefined below.

Phatic expression. Phatic expression, which refers to personalized messages used in conversations among people who know each other (e.g., friends or relatives), was measured by the use of second person. The use of second person (you) was considered phatic expression if content authors used it to address the audience directly. The measure ranges from 0 to 3 with no second person used by author (0) to second person used by author(s) three or more times (3).

Logic. Logic was defined as reasoning on the basis of potential benefit or harm for an action. This variable was measured by the presence of statement describing any potential benefit or harm of an action. Three types of logic statements were searched in

the content—statements offering reward for an intended action, statements describing potential harms from an action, and statements describing potential harm for no action. The measure ranges from 0 to 3 with no logic statement used at all (0) to uses of all three categories of logic statement (3).

Emotion. Emotion words (e.g., love, hate) used by authors and/or attributed sources were coded. The measure ranges from 0 to 2 with no emotion words used at all (0) to emotion words used by both author and attributed source (2).

Normative appeal. Normative appeal, meant to invoke ethical obligation among users, was measured by the use of the words 'should' and/or 'could'. These two words express obligation or duty. Content was coded for uses of should or could by authors and/or attributed sources. The measure ranges from 0 to 2 with no use of should and/or could at all (0) to should and/or could used by both author and attributed source (2).

Comparison motive. A unit of content is considered to have comparison motive if it contains statement, attributed to a source, making commands or issuing instructions for the users. Content was coded for comparison motive when an attributed source used imperative verb giving commands. This is a dichotomous variable and its measure ranges from zero to one.

H2—Results. An ANOVA test found that the Institutional media do not have significantly more persuasive content than the other media types. The hypothesis is not supported (See Table 12). Results indicate that the User-generated media websites have significantly more persuasive content than the Institutional media (*F* value=8.72; $p<.01$).

The data show that the Institutional media have the third highest mean in the *persuade* construct. The Institutional media have a slightly lower amount of persuasive content than the Alternative media websites and higher amount than the Mainstream media websites, although the differences are not statistically significant. The data indicate that all four types of online media put relatively low emphasis on the *persuade* function. Mean scores in the *persuade* construct range from 2.05 to 3.18 on an 11-point scale, considerably lower than the mean scores in the inform construct. The highest mean score on the *persuade* construct (3.18) is lower than the lowest mean score (4.21) in the *inform* construct.

Table 12: Persuade function by media type

	Main	**Inst.**	**Alt.**	**UG**	F
Persuade (Construct)	2.05c	2.60bc	2.71ab	3.18a	$F(3, 696)=8.72$ **
Variables:					
Phatic expression	.24c	.69b	.82b	1.21a	$F(3, 696)=22.33$ **
Logic	.27b	.65a	.38b	.43b	$F(3, 696)=11.56$**
Emotion	.69a	.69a	.75a	.74a	$F(3, 696)=.49$
Normative appeal	.67a	.42b	.55ab	.70a	$F(3, 696)=8.18$ **
Comparison motive	.18a	.16ab	.20a	.07b	$F(3, 696)=4.12$**

- Persuade construct is measured on an 11-point index with five variables;
- Phatic expression measure ranges from '0' to '3'; Logic ranges from '0' to '3'; Emotion ranges from '0' to '2'; Normative appeal ranges from '0' to '2'; and Comparison motive ranges from '0' to '1';
- Main=Mainstream media websites; Inst.=Institutional media websites; Alt.=Alternative media websites; UG=User-generated media websites;
- a,b,c: Means with common lowercase letters within a row are not significantly different ($p<.05$) from one another by a Tukey post hoc test;
- *$p<.05$; **$p<.01$

To understand the differences more precisely on the *persuade* function, ANOVA tests were run on individual variables. The Institutional media have a significantly higher level of logic statements (0.65 out of 3) than other media. The Institutional media use phatic expression (0.69 out of 3) or second person significantly more frequently than the Mainstream media websites and significantly less frequently than the User-generated media websites. The difference between the Institutional media and the Alternative media websites on phatic expression is not statistically significant. The Institutional media do not differ significantly with any other type of media on emotion and comparison motive.

The User-generated media websites have the highest level of persuasive content. Tests on individual variables show that the User-generated websites use a significantly higher level of phatic expression (1.21 out of 3) than all other types of media. This indicates that the User-generated media use second person to address the audience directly significantly more than others. Differences on phatic expression account for most of the differences in this construct. The User-generated media websites also have higher levels of normative appeal (0.70 out of 2) than other media, although the differences are not statistically significant. Normative appeals are used to invoke ethical obligations. Mean scores on logic suggest that the User-generated media websites (0.43 out of 3) have significantly lower number of statements offering rewards or threats relating to certain actions than the Institutional media websites, and about the same level of such statements as the Mainstream media websites and the Alternative media websites. The User-generated media websites have the second highest level of emotional content (0.74 out of 2), but the difference is not significantly different from

any other type of media. The User-generated websites scored 0.07, the lowest on comparison motive variable, indicating that they rarely refer an action statement to a source.

The Alternative media websites have the second highest level of persuasive content. The Alternative media websites have the highest levels of emotional content (0.75 out of 2) and comparison motive (0.20 out of 1), and the second highest level of phatic expression (0.82 out of 3). The Alternative media websites have significantly higher level of comparison motive than the User-generated media websites, but the differences with the Mainstream media websites and the Institutional media websites are not statistically significant. The Alternative media websites have significantly higher level of phatic expression (use of second person to directly address the audience) than the Mainstream media websites, and significantly lower level of phatic expression than the User-generated media websites.

The Mainstream media websites have the lowest level of persuasive content. This type of media has the lowest levels of phatic expression (0.24 out of 3), logic (0.27 out of 3), and emotion (0.69 out of 2). But, it uses normative appeal (0.67 out of 2) to invoke ethical obligation significantly more often than the Institutional media websites. The Mainstream media's difference with the Alternative media websites and the User-generated media websites on normative appeal is not statistically significant.

H2 summary. H2 proposed that *persuade* function is more apparent in the Institutional media websites than other media. It was not supported. Institutional media did not have significantly higher levels of persuasive content than other media types.

Alternative media have the highest level of persuasive content, significantly higher than the other types. Institutional media had the third-most persuasive content of the types.

H3—Primary function of the Alternative media websites. H3 states that the "to mobilize" function is more apparent in the Alternative media websites than other media. *To mobilize* is defined as media activism in which content is created in order to mobilize people for civic actions aimed at social and political changes. The variables, used to measure the mobilize function, are: public sphere, call to action, ordinary sources, content created by public, repackaging, and external evidence. The variables are briefly redefined below.

Public sphere. *Public sphere* content refers to articles about issues and topics relating to concerns and interests shared by public (e.g., politics, public affairs, governance). Headline, deck, and first three paragraphs of an article were examined for *public sphere* content. This is a dichotomous variable and its measure ranges from 0 to 1 with the content is not about public sphere (0) to content is about public sphere (1).

Call to action. A sentence making command or issuing instruction is defined as a *call to action* given that the sentence is not attributed to a source. This is a dichotomous variable and its measure ranges from 0 to 1 with no imperative verb used by author (0) to at least one imperative verb used by author (1).

Ordinary sources. All attributed sources that do not fall in the categories of expert sources are considered *ordinary sources*. Examples of ordinary sources include eyewitnesses and victims. The measure ranges from 0 to 3 with presence of no non-elite source (0) to presence of three or more non-elite sources (3).

Content by public. Content by public refers to a unit of content that is not created by the employees of the publishing website. The measure ranges from 0 to 2 with content authored by employee (0) to content authored by non-employee (2).

External evidence. Hyperlinks to unique external websites were coded for this variable. The measure ranges from 0 to 3 with presence of no hyperlink to external website (0) to presence of hyperlinks to three or more unique websites (3).

Repackaging. This measures collaboration among media websites by looking at the credit line that says if the content is original or a reprint. This is a dichotomous variable and its measure ranges from 0 to 1 with content is original (0) to content is a reprint (1).

H3—Results. An ANOVA test indicates that the Alternative media websites have a significantly higher mean on the *mobilize* construct than all other types of media (F value = 50.31; $p<.01$). The hypothesis is supported (See Table 13).

Results for other media types show that the User-generated media websites have the second most mobilizing content. This type of media has a significantly higher mean than the Institutional media websites in the *mobilize* construct. The Mainstream media websites have the third most mobilizing content. The Mainstream media's mean on this construct is significantly higher than the Institutional media.

Tests on the six variable means in the *mobilize* construct show that the Alternative media websites have the highest means on three variables—content by public (1.11 out of 2), repackaging (0.17 out of 1) and call to action (0.51 out of 1)—in the mobilize construct. The data suggest that the Alternative media websites publish significantly higher amount of content created by non-employees than all other types of

media. The Alternative media websites have significantly higher amount of reprinted content than the User-generated media websites and the Institutional media websites. Authors at the Alternative media websites make action statements significantly more frequently than the authors at the Mainstream media websites and the Institutional media.

Table 13: Mobilize function by media type

	Main	**Inst.**	**Alt.**	**UG**	F
Mobilize (Construct)	3.47b	2.55c	4.97a	3.73b	$F(3, 696)=50.31$ **
Variables:					
Public sphere	.97a	.97a	.92ab	.89b	$F(3, 696)=4.85$**
Call to action	.08c	.36b	.51a	.45ab	$F(3, 696)=31.92$**
Ordinary source	.89a	.45bc	.69ab	.34c	$F(3, 696)=12.44$**
Content by public	.47b	.33b	1.11a	.00c	$F(3, 696)=71.85$**
Repackaging	.12a	.00b	.17a	.01b	$F(3, 696)= 19.21$**
External evidence	.93c	.46d	1.57b	2.05a	$F(3, 696)=71.60$**

- Mobilize construct is measured on an 11-point index with six variables;
- Public sphere measure ranges from '0' to '1'; Call to action measure ranges from '0' to '1'; Ordinary source ranges from '0' to '3'; Content by public ranges from '0' to '2'; Repackaging ranges from 0 to 1; and External evidence ranges from '0' to '3';
- Main=Mainstream media websites; Inst.=Institutional media websites; Alt.=Alternative media websites; UG=User-generated media websites;
- a,b,c: Means with common lowercase letters within a row are not significantly different ($p<.05$) from one another by a Tukey post hoc test;
- *$p<.05$; **$p<.01$

The Alternative media websites have significantly lower number of external hyperlinks (1.57 out of 3) than the User-generated media websites, and significantly higher number of external hyperlinks than the Mainstream media websites and the Institutional media websites. The Alternative media websites do not differ significantly with any other

media on public sphere. Most of the content on all four types of media are about public sphere.

The User-generated media websites have the second highest level of mobilizing content. The User-generated media websites have a significantly higher mean on external evidence (2.05 out of 3) than all other media, indicating the User-generated media use external hyperlinks significantly more than others. The User-generated media websites scored '0' on content by public and 0.01 on reprint indicating that the User-generated websites rarely publish others' content. Nor do they reprint any content that has already been published elsewhere. The user-generated media websites also have a significantly lower mean than all other media on uses of ordinary (non-official) sources (0.34 out of 3).

The Mainstream media websites have the third highest level of mobilizing content. The Mainstream media websites have a significantly higher mean on ordinary sources (0.89 out of 3) than all other media. The Mainstream media websites allow significantly lower amount of content created by public (content by public mean=0.47) than the Alternative media websites, and significantly higher amount than the User-generated media websites. The Mainstream media websites use significantly less external hyperlinks—(M=0.93 out of 3 on external evidence) than the Alternative media websites and the User-generated media websites, and significantly more than the Institutional media websites.

The Institutional media websites have the lowest level of mobilizing content. The Institutional media use significantly lower number of external hyperlinks than all other media (0.46 out of 3). They have the third highest means on three variables—call

to action (0.36 out of 1), ordinary source (0.45 out of 3), and content by public (0.33 out of 2)—and the lowest mean on external evidence (0.46 out of 3). Authors at the Institutional media use significantly lower amount of action statements than the Alternative media websites. The Institutional media use significantly lower number of ordinary sources than the Mainstream media websites.

H3 summary. H3 proposed that the *mobilize* function is more apparent in the Alternative media websites than other media. This hypothesis is supported. The findings suggest that the *mobilize* function is more prominent than the *persuade* function and less prominent than the *inform* function in almost all media.

H4—Primary function of the User-generated media websites. The fourth hypothesis in the study is: The "to self-present" function is more apparent in the user generated media websites than other media. *To self-present* is defined as disclosure of information about self (e.g., beliefs, ideologies, and preferences) by individuals through personal websites. The scale for this function is a combination of five variables—ego, social affiliation, historical self, phenomenal self, and strategic self. Variables in the self-present construct are redefined below.

Ego. Content unit was coded for ego if its author used first person singular in any form (e.g., I, me, or my). These words represent conscious self and give individuals a sense of freedom and awareness about self. The measure ranges from 0 to 3 with no first person singular used (0) to first person singular used three or more times (3).

Sense of social affiliation. Content unit was coded for sense of social affiliation if its author used first person plural in any form (e.g., we, us, or our). The measure

ranges from 0 to 3 with no first person plural used (0) to first person plural used three or more times (3).

Historical self. Content was coded if author(s) mentioned own life event in the past. This is a dichotomous variable and its measure ranges from 0 to 1 with no life event mention (0) to at least one live event mentioned (1).

Phenomenal self. Content was coded for phenomenal self if author(s) disclosed own belief, ideologies or biases. This is also a dichotomous variable with measure ranging from 0 to 1.

Strategic self-presentation. Strategic self refers to content that discloses personable qualities, skills, competence, honesty, strengths or weaknesses of the author. It was measured by the use of adjectives highlighting author's qualities. The measure ranges from 0 to 3 with presence of no adjectives that highlight quality of author (0) to presence of three or more adjectives (3).

H4—Results. An ANOVA test finds that the User-generated media websites have a significantly higher mean on the *self-present* construct than all other media (*F* value = 87.81; $p<.01$). The hypothesis is supported (See Table 14).

Test results also show that the Institutional media have the second highest mean in the *self-present* construct, which is significantly higher than the means of the Mainstream media websites and the Institutional media. The Alternative media websites have the third highest mean, which is significantly higher than the Mainstream media websites.

Tests on individual variable means suggest that the User-generated media websites have the highest means on four out of five variables in the *self-present*

construct—social affiliation, historical self, phenomenal self and strategic self. The User-generated media websites have significantly higher means than all other types of media on social affiliation (1.36 out of 3), which means this type of media uses 'we' or first personal plural more than all other media. The User-generated media authors also disclose significantly more information about phenomenal self (0.75 out of 1) such as personal beliefs, ideologies and biases.

Table 14: Self-present function by media type

	Main	**Inst.**	**Alt.**	**UG**	F
Self-present (Construct)	0.94d	4.29b	2.03c	5.6a	$F(3, 696)=87.81^{**}$
Variables:					
Ego	.50b	1.93a	.69b	1.89a	$F(3, 696)=73.75^{**}$
Social affiliation	.23c	.80b	.62b	1.36a	$F(3, 696)=30.55^{**}$
Historical self	.03c	.34a	.17b	.41a	$F(3, 696)=31.86^{**}$
Phenomenal self	.10c	.11c	.35b	.75a	$F(3, 696)=106.63^{**}$
Strategic self	.07b	1.11a	.22b	1.24a	$F(3, 696)=59.35^{**}$

- Self-present construct is measured on an 11-point index with five variables;
- Ego measure ranges from '0' to '3'; Social affiliation ranges from '0' to '3'; Historic self ranges from '0' to '1'; Phenomenal self ranges from '0' to '1'; and Strategic self ranges from '0' to '3';
- Main=Mainstream media websites; Inst.=Institutional media websites; Alt.=Alternative media websites; UG=User-generated media websites;
- a,b,c: Means with common lowercase letters within a row are not significantly different ($p<.05$) from one another by a Tukey post hoc test;
- $^{*}p < .05$; $^{**} p < .01$

The User-generated media websites have the highest means on historical self (0.41 out of 1) and strategic self (1.24 out of 3), but the differences with the Institutional media websites on these two variables are not statistically significant. The User-generated media websites have the second highest mean on ego (1.89 out of 3), which is

significantly higher than the mean of the Alternative media websites and the Mainstream media websites.

The Institutional media websites have the second highest level of self-presenting content. The Institutional media have the highest mean on ego (1.93 out of 3), and the second highest means on social affiliation (0.80 out of 3), historical self (0.34 out of 1), and strategic self (1.11 out of 3). The Institutional website mean on ego is significantly higher than the Mainstream media. The Institutional media have the third highest mean on phenomenal self (0.11 out of 1), which indicates that the Institutional media rarely publish content that discloses their authors' beliefs, ideologies or biases.

The Alternative media websites have the third highest level of self-presenting content. The Alternative media websites have significantly higher means than the Mainstream media websites on social affiliation (0.62 out of 3), and on historical self (0.17 out of 1). The Alternative media have a significantly higher mean than the Mainstream media and the Institutional media on phenomenal self (0.35 out of 1).

The Mainstream media websites have the lowest level of self-presenting content. They have the lowest means on all five variables in the self-present construct. They have a significantly lower means than all other media on social affiliation (0.23 out of 3), and historical self (0.03 out of 1). They have the smallest and statistically insignificant difference with the Alternative media websites on ego (0.50 out of 3) and strategic self (0.07 out of 3), and with the Institutional media websites on phenomenal self (0.10 out 1).

H4 summary. H4 proposed that *self-present* function is more apparent in the user generated media websites than other media. This hypothesis is supported. The

User-generated media websites perform all self-present sub-functions to a moderate to high extent.

Findings in Relation to the Proposed Typology

The typology, proposed in chapter 3, identifies four distinct categories of online media. It suggests that each type of media has a primary functionality that the particular media type performs better than others. It was also suggested that each media type serves multiple functionalities. The results provide substantial support for the typology, except in the case of Institutional media websites. The results support the theoretical assumptions regarding functionalities of the Mainstream media, the Alternative media, and the User-generated media. The Institutional media serve multiple functionalities, but the primary functionality of this type could not be determined.

Table 15: All four functions by media type

	Main	**Inst.**	**Alt.**	**UG**	*F*
Inform	8.21a	4.21c	6.04b	4.49c	$F(3, 696)=133.20^{**}$
Persuade	2.05c	2.60bc	2.71ab	3.18a	$F(3, 696)=8.72^{**}$
Mobilize	3.47b	2.55c	4.97a	3.73b	$F(3, 696)=50.31^{**}$
Self-Present	0.94d	4.29b	2.03c	5.65a	$F(3, 696)=87.81^{**}$

Main=Mainstream media websites; Inst.=Institutional media websites; Alt.=Alternative media websites; UG=User-generated media websites;
a,b,c: Means with common lowercase letters within a row are not significantly different ($p<.05$) from one another by a Tukey post hoc test;
$^{**}p < .01$; $^{*}p < .05$;

The proposed typology led to four hypotheses regarding the primary functionalities of four types of content creators. It was hypothesized that the *inform* function would be more apparent in the Mainstream media websites than in other media. The hypothesis is supported. It was also hypothesized that the persuade function

would be more apparent in the Institutional media than other media. The data did not find this hypothesized primary functionality for the Institutional media. The typology also suggests that the mobilize function would be more apparent in the alterative media websites than other media. This hypothesis is supported. The last hypothesis was that to self-present function would be more apparent in the User-generated media websites than other media. This hypothesis is also supported.

In sum, the typology appears valid for three types of news and informational media. The content analysis identifies how all four media types are positioned in the media ecosystem by the content creators. However, the Institutional media websites are not positioned in the way it was predicted. The Institutional media perform all functions to some extent, but no one function better than other media. In this way, the primary function of Institutional media could not be identified through content analysis.

Primary functionality of the Mainstream media. The content analysis results suggest that the primary functionality of the Mainstream media is to inform. The Mainstream media provide significantly higher levels of informative content than all other media types across all dimensions that measure the inform construct. The Mainstream media perform the other functions—*mobilize, persuade,* and *self-present*—to a low extent. It is worth noting that this media type provides the lowest levels of *persuading* and *self-presenting* content among all four media types.

The Mainstream media's mean on the *inform* function is higher than other media types, because this media type provides all of the five inform attributes from moderate to high extent. Almost all of the mainstream media content units examined in this study have the highest level of immediacy. The Mainstream media present facts before

opinions to a high extent, and show high level of transparency. Content of this media type provides a moderate level of authenticity and multiple expert perspectives.

Regarding the attributes of other functionalities, the Mainstream media provide public sphere content—an attribute of *mobilize* function—to a high extent. This media type provides all other attributes of other functions to a low extent.

Primary functionality of the Institutional media. The content analysis data did not find a primary functionality for the Institutional media websites. The typology predicts that the Institutional media serve the persuade function it to a greater extent than other media types. But the results show that the Institutional media do not perform any of the four functions to a greater extent than the other media types.

The construct means of all four functionalities show that the Institutional media do not have a mean higher than 4.29 (on 11-point scales). The results suggest that the Institutional media do not serve any functionality more than low to moderate degree. Their strongest functionalities are *self-present* and *inform*, and the weakest functionalities are *persuade* and *mobilize.*

The attribute means show that the content of the Institutional media is highly related to the public sphere—an attribute of *mobilize* function. Content of this media type is moderately fact-based, transparent (*inform*). The Institutional web content uses ego (*self-present)* to a greater extent than other media types.

Primary functionality of the Alternative media. The primary functionality of the Alternative media is to *mobilize*. This media type provides *mobilizing* content to a significantly greater extent than other media types. The Alternative media perform other functions from moderate to a low extent.

Alternative media's mean on *mobilize* function is higher than others, because this media type uses content created by the public significantly more than others. The Alternative media also use external hyperlinks significantly more than the Mainstream media and the Institutional media.

Results on other functionalities show that the Alternative media serve *inform* function to a moderate extent, and *persuade* and *self-present* functions to a low extent. Alternative media's relatively higher mean on *inform* function results from this media type's second highest means on immediacy and transparency.

Primary functionality of the User-generated media. The User-generated media's primary functionality is to *self-present*. This media type performs *self-present* functionality to a significantly greater extent than all other media types. The User-generated media also perform *persuade* function to a significantly greater extent than others, but the construct means suggest that *self-present* is the strongest functionality of the User-generated media. This media type serves other functions from a low to moderate extent.

Results on self-present attributes suggest that the User-generated media have moderate means on all five attributes: ego, social affiliation, historical self, phenomenal self, and strategic self-present.

The data on other functionalities show that the User-generated media content is highly related to public sphere (mobilize). The User-generated media provide external link to a greater extent than other media types.

Connection to the Theory of the Niche

The findings of the content analysis that explored the intent of the content creators reveal the extent to which each media type serves four functionalities—*inform, persuade, mobilize* and *self-present*. For instance, the Mainstream media provide *inform*ative content to a high extent, but serve the *self-present* functionality to a very low extent. Measuring the extent to which a media type serves a multivariate functionality is similar to measuring the niche breadth—a key concept of the theory of the niche. Niche breadth is calculated by measuring the extent to which a media type is perceived to provide a spectrum of gratifications. So, the extent to which a media type serves a functionality may be interpreted as that particular media type's niche breadth on that functionality. Furthermore, each of the multivariate functionalities may be considered a niche dimension that allows media "to exist and perpetuate themselves in time and space" (Dimmick, 2003, p. 29). Each attribute of a functionality (e.g., attributes of *inform* functionality include fact-based, transparency) is similar to a micro-dimension or sub-division of a niche. Accordingly, the means of the media types on four functionality constructs (e.g., inform construct, persuade construct) begin to explain the media types' niche breadths, as intended by the content creators.

The results also indicate that each media type serves all four functionalities to some extent. For example, the Institutional media serve all of *inform, persuade, mobilize* and *self-present* functions to some extent. So do the Mainstream media, the Alternative media, and the User-generated media. This indicates some similarities among the four media types. These similarities are very close to what Dimmick (2003) calls niche overlap. Dimmick noted that the level of similarities between two media

types indicate the level of competition between them. The higher the similarities between two media types, the higher the competition is.

The main findings of the content analysis show that three out of four media types serve one function to a greater extent than all other media types. In other words, each of these three media types—Mainstream media, Alternative media, and User-generated media, has a primary functionality. For instance, Mainstream media's primary functionality is to *inform*, and Alternative media's primary functionality is to *mobilize.* This concept of primary functionality is close to the concept of niche superiority. Dimmick (2003) defined niche superiority as capacity of a media type to fulfill a need to a greater extent than other media types. A functionality becomes a media type's primary functionality when the media type demonstrates its capacity to serve that functionality to a greater extent than – or superior to – other media types.

The findings of the content analysis begin to explain the niche of each media type, as intended by the content creators. These findings, when combined with the survey data, may better explain the overall niche of a media type in the networked media ecosystem. Dimmick (2003) noted that content is related to gratifications and gratification opportunities. Dimmick also suggested that the type of content a media type produces may result from the content creators' perceptions of audience needs and wants (p. 34). To more fully understand the audience wants and needs, the next chapter reports results of a national sample of online media users.

Summary of the Chapter

This chapter reports the results of a content analysis of 700 units of content, 175 units from each of the four media types. The content analysis tested a typology of online

content creators and four hypotheses. Three of the hypotheses were supported. Key findings from the content analysis indicate that the main function of the Mainstream media websites is to inform. The Mainstream media perform the *inform* function to a significantly greater extent than other media types. The Alternative media websites perform 'mobilize' function to a greater extent than others, and the User-generated media websites perform 'self-present' function to a greater extent than others. The data do not support the hypothesis regarding the primary function of Institutional media. This media type does not perform any one function significantly better than other media types. The results also show that the Institutional media are the lowest performing media on 'inform' and 'mobilize' functions while the Mainstream media websites are the lowest performing media on 'persuade' and 'self-present' functions. The findings indicate that the proposed typology is a workable framework that explains the differences and similarities among the four types of content creators.

In brief, this chapter provided the results of a content analysis that examined how four types of online media position themselves in the networked media ecosystem. The next chapter will provide results of the survey that examines how the audience perceives the content from the four media types fulfills various audience needs and gratifications. Taken together, the dissertation begins to explain how various online media position themselves in the networked media ecosystem, and how they compete and coexist in the ecosystem.

Chapter 7: Results (Survey)

The previous chapter presented findings of the content analysis that tested the proposed typology of online media. The content analysis revealed how the content creators intend to position their contents in the networked media ecosystem. To explore the perspective of the users, this dissertation has conducted a survey on a national sample of online media users. Taking both studies together, the dissertation begins to explain the networked media ecosystem.

This chapter presents results of the survey and answers four sets of research questions about how the audience defines the niches of four types of online media in the ecosystem—the Mainstream media, the Institutional media, the Alternative media, and the User-generated media. The survey answers research questions about niche breadth, niche overlap, competitive superiority, and differences among four types of online media on two resource dimensions—gratifications and gratification opportunities. The survey shows the extent to which users perceive the content to be fulfilling their needs; the extent to which different types of media overlap in fulfilling a range of gratifications; and the extent to which some content creators fulfill a range of gratifications better than others.

This chapter begins with demographic information of the respondents, followed by the results of research questions that test and measure Dimmick's (2003) theory of the niche concepts: niche breadth, niche overlap, and niche superiority of the four media types.

Sample Demographics

Respondents of the survey—US residents aged between 18 and 64—were recruited by two different methods. A total of 1103 respondents completed the survey. Of them, 202 (18.31%) were recruited through emails and 901 (81.69%) through Amazon Mechanical Turk (MTurk), a commercial pool of survey participants. For the email survey, a list of 100,000 email addresses was purchased from a nationwide commercial email database on condition that the addresses would be drawn randomly from the database containing 186 million email addresses (Email List, n.d.). From the list of purchased email addresses, 3,967 were deleted because of age criteria set for participation in the survey. The survey was emailed to the remaining 96, 033 email addresses through Qualtrics software, but the software was unable to access the recipient servers of 29,848 emails. The survey was delivered to 66,185 recipients with a response rate of 0.3%. Email respondents took part in the survey voluntarily. However, each MTurk respondent received one dollar ($1) on completion of the survey (see Chapter 5 for more details about the recruitment methods). The responses indicate that the email respondents and the MTurk respondents differed in gender, age, income and education (see Table 16). Email respondents are predominantly female and MTurk respondents are predominantly male. Also, email respondents are older, richer and more educated than the MTurk respondents.

The demography of the overall sample is close to the demography of the US population (US Census Bureau, 2010). Average age in the sample is 36.1 years, one year less than the average age (37.2) of US population. Among the survey respondents, 75.3% are Caucasian-American. According to the U.S. census, 72.4% people in the U.S.

are Caucasian. About 53% survey respondents are male and 47.1% are female. According to the 2010 census, 49.2% people are male and 50.8% are female.

Table 16: Comparison of sample demographics with US census data

	Total Sample **N=1058*	**U.S. Census**	**Email Sample** *n=157*	**MTurk Sample** *n=901*
Age (*M*)	36.07	37.2 (2010)	49.18	33.79
Income (*M*)	42,278	36,524 (2010)	77,027	36,035
Education (%)				
Less than High School	0.4	12.3 (CPS '14)	0.6	0.3
High School	27.3	49	8.9	30.5
2-year College	19.4	9.3	12.7	20.5
4-year College	39.6	18.9	38	39.8
Master's Degree	10.9	7.5	29.1	7.7
Doctoral/Terminal	2.5	2.8	10.8	1.1
Ethnicity (%)				
Caucasian-American	75.3	72.4 (2010)	74.5	75.4
African-American	9.1	12.6 (2010)	8.3	9.2
Hispanic-American	5.9	16.3 (2010)	7	5.8
Asian-American	7.5	4.8 (2010)	3.2	8.2
Native American	.9	0.9 (2010)	1.3	0.9
Others	1.3	6.2	5.7	0.6
Gender (%)				
Female	47.1	50.8 (2010)	53.2	45.9
Male	52.9	49.2 (2010)	46.8	54.1

* 45 (4.08%) of 1103 respondents did not complete demographic section of the survey - Hispanic-American category (Ethnicity) is an additional category for the Census, not a mutually exclusive category.

Two differences in the sample from U.S. population should be noted: the sample is skewed towards more educated and richer people. More than 72% respondents reported two-year college or higher as the highest level of education completed,

compared to only 38.5% in the population. About 40% respondents reported four-year college degree as their highest level of education completed, compared to 18.9% in the population. Less than 1% respondents said they did not complete high school, compared to 12.3% in the population. Average income in the sample is $42,278, which is over $5,000 more than the average income of the population.

Measures

Four identical sets of survey statements were used to measure audience perceptions about the gratification niches of four types of online media (Mainstream media, Institutional media, Alternative media, and User-generated media). Each set included 36 statements that measured two constructs; gratifications (e.g., information seeking, utility, surveillance, and entertainment) is measured by 25 statements, and gratification opportunities (e.g., timeliness, convenience, and diversity) is measured by 11 statements. The statements were collected from the uses and gratifications literature. Dimmick and his coauthors (1992, 2000, 2004) used similar statements in several studies examining niches of various types of media. Respondents rated each statement on a five-point Likert-like intensity scale with 1 as strongly disagree and 5 as strongly agree (e.g., allow me to keep up with current events; allow me to create content on their websites). The higher the response on a scale, the higher the gratification a type of website is perceived to be providing on that scale. Cronbach's alpha for the gratifications measures was 0.92 for the Mainstream media, 0.94 for the Institutional media, 0.95 for the Alternative media, and 0.94 for the User-generated media. Cronbach's alpha for the gratification opportunities was 0.91 for the Mainstream media, 0.88 for the Institutional media, 0.92 for the Institutional media, and 0.88 for the User-

generated media. Cronbach's alpha reliability coefficients are excellent on these constructs (DeVellis, 2012; Kline, 2000).

Niche breadths. The first set of research questions (RQ 1a-1d) is about niche breadths of four types of online media—Mainstream media, Institutional media, Alternative media, and User-generated media—on gratifications and gratification opportunities dimensions. Niche breadth measures "the area of a niche along a particular resource dimension or axis, such as gratifications…" (Dimmick, 2003, p. 37). Breadth reveals the extent to which each type of online media gratifies a spectrum of audience needs.

Dimmick's (2003) formula—which takes into account the survey statements that measure resource dimensions (e.g., gratifications and gratification opportunities)—was used to calculate niche breadths for each type of online media. Niche breadth scores range from 0 to 1 in which "0" indicates that a type of media has no place in the media ecosystem. For instance, if a type of online media has "0" niche breadth on the gratifications dimension, it means audience members perceive this type of media to be providing no gratifications at all. On the other hand, "1" niche breadth indicates that audience members perceive a type of media to be providing the highest level of gratifications in the entire gratification spectrum being measured. Because of precision in the niche breadth formula that converts the values in Likert-like scale into smaller values ranging from '0' to '1', differences among some coefficients may appear to be small but statistically significant.

Results—RQ 1a to 1d. Research question 1a asks: What are the niche breadths of the Mainstream media on gratifications and gratification opportunities dimensions?

The niche breadth of the Mainstream media is 0.51 on gratifications and 0.61 on gratification opportunities (see Table 17). As implied by the niche breadth equations ranging from 0 to 1, scores of 0.51 and 0.61 would suggest that the Mainstream media websites fulfill a moderate spectrum of needs on both gratifications and gratification opportunities dimensions. The Mainstream media have a significantly broader niche (0.51) than the Institutional media, and narrower niche than the User-generated media on gratifications. On gratification opportunities, the Mainstream media have the broadest niche (0.61). The results suggest that the Mainstream media fulfill a significantly narrower spectrum of gratifications than the User-generated media. The Mainstream media fulfill a broader spectrum of gratification opportunities than all other media types, but Mainstream media's difference with the Alternative media is not statistically significant.

Table 17: **Niche breadths: Media type by gratifications and gratification opportunities**

	Main	**Inst.**	**Alt.**	**UG**	***F***
Gratifications	0.51b	0.44c	0.52ab	0.53a	$F(3, 4289)=53.85$**
Gratification Opportunities	0.61a	0.58b	0.60ab	0.58b	$F(3, 4289)=6.71$**
N	1103	1070	1060	1057	

Main=Mainstream media; Inst.=Institutional media; Alt.=Alternative media; UG=User-generated media;
a,b,c: Means with common lowercase letters within a row are not significantly different ($p<.05$) from one another by a Tukey post hoc test;
Scores range from 0 to 1; 0=No place for a type of website in the niche; 1=Occupation of the entire niche by a type of website;
*$p < .05$; **$p < .01$

Research question 1b asks: what are the niche breadths of the Institutional media websites on gratifications and gratification opportunities dimensions? The niche breadth

of the Institutional media is 0.44 on gratifications and 0.58 on gratification opportunities. The Institutional media have a significantly narrower niche (0.44) than all other media on gratifications.

On gratification opportunities, the Institutional media have a significantly narrower niche (0.58) than the Mainstream media, and about the same niche breadth as the Alternative media and the User-generated media. The findings suggest that the Institutional media fulfill a narrower spectrum of gratifications than all other media and about the same spectrum of gratification opportunities as the Alternative media and the User-generated media.

Research question 1c asks: what are the niche breadths of the Alternative media websites on gratifications and gratification opportunities dimensions? The niche breadth of the Alternative media is 0.52 on gratifications and 0.60 on gratification opportunities. The Alternative media have a significantly broader niche (0.52) than the Mainstream media and the Institutional media on gratifications. Alternative media's niche on gratification opportunities is not significantly different from any other type of media (0.60). The results indicate that the Alternative media fulfill a broader spectrum of gratifications than the Mainstream media and the Institutional media.

Research question 1d asks: what are the niche breadths of the User-generated media websites on gratifications and gratification opportunities dimensions? The niche breadth of the User-generated media is 0.53 on gratifications and 0.58 on gratification opportunities. The User-generated media have the highest niche breadth on gratifications, which is significantly broader than the Mainstream media and the Institutional media. The User-generated media have a significantly narrower niche than

the Mainstream media on gratification opportunities. The results indicate that the User-generated media fulfill a broader spectrum of gratifications than the Mainstream media and the Institutional media, and about the same spectrum of gratification opportunities as the Alternative media and the Institutional media.

Taken together, each of the four types of online media fulfills a relatively moderate spectrum of gratifications and gratification opportunities (breadth scores range from 0.44 to 0.61). The User-generated media have the highest niche breadth on gratifications, and fulfill a significantly broader spectrum of gratifications than the Mainstream media and the Institutional media. The Mainstream media have the highest niche breadth on gratification opportunities, and provide a significantly broader spectrum of gratification opportunities than the Institutional media and the User-generated media. The Institutional media fulfill a significantly narrower spectrum of gratifications than all other media types. The Institutional media and the User-generated media have the lowest niche breadth (0.58 for both media types) on gratification opportunities. Further analysis of the data (e.g., mean differences among media types on each individual statement, niche overlap, and competitive superiority) will provide more specific details about the similarities and differences among online media types.

Differences among Media Types on Gratifications

As niche breadth has measured the total spectrum of gratifications as a multi-variate construct, research question 2a probes where the differences are among the statements that measure the gratifications construct. The construct has 25 statements about seven needs—information seeking (four statements), interaction (four statements), development and maintenance of relationships (three statements),

entertainment (three statements), utility (five statements), surveillance (three statements), and self-status seeking (three statements). One-way ANOVA test was conducted on the gratifications construct and on individual statements by media type.

Results—RQ 2a. RQ 2a asks: Are there significant differences among the four types of online media on the gratifications dimension? An ANOVA test reveals that the differences among the four types of online media on the gratifications construct are statistically significant (F=54.67; p<.01). The construct means range from 2.77 to 3.11 on a five-point scale, which indicate that each medium satisfies a moderate level of gratifications (See Table 18). Post hoc comparisons show that the User-generated media provide significantly more gratifications than the Mainstream media and the Institutional media, and slightly higher gratifications than the Alternative media. The Alternative media provide significantly more gratifications than the Institutional media. The Mainstream media provide significantly more gratifications than the Institutional media. The Institutional media provide a significantly lower level of gratifications than all other media. These findings mirror the niche breadth results, calculated by Dimmick's (2003) formula that measured the total spectrum of gratifications provided by the four media types. Results of RQ 2a show exactly where the differences are, by looking at the means of both constructs and individual statements.

ANOVA tests on individual statements have also found statistically significant differences among the four types of online media on all 25 statements (See Table 18). The statements measure seven gratification needs—information seeking, interaction, development and maintenance of relationship, entertainment, utility, surveillance, and self-status seeking.

Table 18: Gratifications means by media type
(25 Statements, Cronbach's Alpha = 0.94)

	Main	Inst.	Alt.	UG	*F*
Gratifications Index Total	3.03b	2.77c	3.06ab	3.11a	$F(3, 4277)=54.67^{**}$
Statements					
INFO: Allow me to keep up with current events.	4.09a	3.02c	3.49b	2.93d	$F(3, 4283)=331.84^{**}$
INFO: Provide information about my interests.	3.56ab	3.59ab	3.49b	3.67a	$F(3, 4283)=6.02^{**}$
INFO: Provide information that affects me or my family.	3.62a	3.51a	3.23b	3.04c	$F(3, 4283)=76.05^{**}$
INFO: Provide information that I can share on social media (e.g., Facebook, Twitter).	3.64a	3.34c	3.47b	3.57ab	$F(3, 4282)=15.86^{**}$
INTER: Allow me to create content on their websites.	2.32b	2.30b	2.90a	2.94a	$F(3, 4281)=117.75^{**}$
INTER: Allow me to interact with the content authors.	2.62c	2.38d	3.22b	3.80a	$F(3, 4280)=416.56^{**}$
INTER: Tell me about others with whom I share similar interests.	2.61c	2.57c	3.23b	3.58a	$F(3, 4282)=234.93^{**}$
INTER: Provide information so I can participate in discussions.	3.38b	3.04c	3.46ab	3.55a	$F(3, 4282)=51.64^{**}$

Table 18: Gratifications means by media type (Continued)

	Main	Inst.	Alt.	UG	*F*
RELAT: Provide information that helps me create new social relationships.	2.56c	2.52c	2.90b	3.22a	*F*(3, 4282)=99.94**
RELAT: Provide information that helps me maintain social relationships.	2.66c	2.55c	2.89b	3.17a	*F*(3, 4282)=67.50**
RELAT: Provide information that helps me extend social relationships.	2.63c	2.53c	2.88b	3.19a	*F*(3, 4282)=79.81**
ENT: Help me get away from everyday worries.	2.39c	2.75b	2.80b	3.38a	*F*(3, 4282)=150.94**
ENT: Make me happy.	2.73c	2.97b	2.93b	3.40a	*F*(3, 4282)=91.46**
ENT: Entertain me.	3.31b	3.11c	3.40b	3.76a	*F*(3, 4282)=76.02**
UTIL: Help me prepare for daily activities.	2.97a	3.03a	2.68b	2.76b	*F*(3, 4281)=25.47**
UTIL: Help me form opinions about important issues.	3.80a	2.98d	3.38b	3.10c	*F*(3, 4282)=131.63**
UTIL: Allow me to compare my opinions to other people's opinions.	3.41b	2.78c	3.48ab	3.58a	*F*(3, 4282)=133.51**
UTIL: Help me develop my critical thinking skills.	3.35a	2.81b	3.35a	3.12b	*F*(3, 4282)=58.75**
UTIL: Help me develop my career.	2.51a	2.60a	2.41a	2.48a	*F*(3, 4282)=5.97**

Table 18: Gratifications means by media type (Continued)

	Main	Inst.	Alt.	UG	*F*
SURV: Tell me what is going on in my community.	3.33a	2.70c	2.90b	2.89b	*F*(3, 4281)=63.66**
SURV: Tell me what political leaders are really like.	3.10a	2.32c	3.18a	2.62b	*F*(3, 4282)=146.75**
SURV: Tell me what the government is doing.	3.68a	2.75c	3.25b	2.66c	*F*(3, 4282)=204.98**
SELF: Tell me whether I am a person of social worth.	2.00b	1.96b	2.20a	2.24a	*F*(3, 4282)=18.66**
SELF: Tell me what I should be proud of.	2.11b	2.08b	2.31a	2.31a	*F*(3, 4280)=14.39**
SELF: Provide facts to back up my opinions.	3.41a	3.02c	3.18b	2.78d	*F*(3, 4282)=68.87**

Main=Mainstream media; Inst.=Institutional media; Alt.=Alternative media; UG=User-generated media;
INFO=Information seeking; INTER=Interaction; RELAT=Development & maintenance of relationship; ENT=Entertainment; UTIL=Utility; SURV=Surveillance; SELF=Self-status seeking;
a,b,c: Means with common lowercase letters within a row are not significantly different ($p<.05$) from one another by a Tukey post hoc test;
5-point Likert-like scale; 1=strongly disagree; 5=Strongly agree;
*$p < .05$; **$p < .01$

Information seeking need. The Mainstream media fulfill the information seeking need better than others. Of the four statements used for the 'information seeking' need (See Table 18, statements identified with the word INFO), the Mainstream media have a

significantly higher mean than other media types on one statement—allow me to keep up with current events (*M*=4.09). Mainstream media also allow users 'to keep up information that affects me or my family" (*M*=3.62) significantly more than Alternative and User-generated media. Further, Mainstream media "provide information that I can share on social media" (*M*=3.64) significantly more than Institutional and Alternative media. It is worth noting that Mainstream media provide the highest levels (mean response on the measure) of information gratifications for three of four statements measuring this gratification need. Overall, across all media types, respondents say their information seeking needs are met from a moderate to high extent.

Interaction need. The User-generated media fulfill the interaction need better than other media. This type of online media has the highest means on all four statements measuring interaction.

ANOVA tests reveal that the means are significantly higher for two of the four statements. The User-generated media allow significantly more 'interaction with the content authors' (*M*=3.80), and 'tell users about others with whom users share similar interests' (*M*=3.58) significantly more than all other media. The User-generated media also provide significantly more information 'that helps users participate in discussion' (*M*=3.55) than the Mainstream media and the Institutional media. The results indicate that there are considerable differences among the four media types in how they fulfill the interaction need. For example, the User-generated media fulfill the interaction need best, and the Alternative media fulfill this need significantly better than the Mainstream media and the Institutional media.

Relationship need. The User-generated media also fulfill the need 'development and maintenance of relationship' better than all other media. The User-generated media have significantly higher means than other types of media on all three statements measuring the relationship need. The User-generated media provide significantly more information that helps 'create' (*M*=3.22), 'maintain' (*M*=3.17), and 'extend social relationships' (*M*=3.19) than all other types of online media. Across all media types, relationship needs are met to a moderate extent with statements means ranging from 2.52 to 3.22. It is worth noting that the User-generated media is the only type that, respondents agree, provides all three items on the relationship need.

Entertainment need. The User-generated media also fulfill the entertainment need better than all three other types of online media. The User-generated media have significantly higher means on all three statements measuring entertainment—help me get away from everyday worries (*M*=3.38), make me happy (*M*=3.40), and entertain me (*M*=3.76). Overall, all three gratification items related to entertainment need are fulfilled only by the User-generated media.

Utility need. Results show that each media type gratifies some of five items measuring utility need, but falls short on others (means below 3). The Mainstream media, the Alternative media and the User-generated media fulfill the same three gratifications relating to utility need, but fail to fulfill the other two. The Institutional media fulfill only one item on utility need. Respondents say that none of the media types fulfills the utility item—help me develop my career. The Mainstream media have a significantly higher mean than all other media on 'help me form opinions about important issues' (*M*=3.80). The Mainstream media and the Alternative media have

significantly higher mean (*M*=3.35 for both types) than the Institutional media and the User-generated media on 'help me develop my critical thinking skills'. The User-generated media have the highest mean (*M*=3.58) on 'allow me to compare my opinions to other people's opinions, and the mean is significantly different from the Mainstream media and the Institutional media. The Institutional media have the highest mean on 'help me prepare for daily activities' (*M*=3.03), which is significantly different from the Alternative media and the User-generated media.

Surveillance need. The data show that the Mainstream media fulfill the surveillance need better than the other media types. The Mainstream media have significantly higher means than all three other types of media on two of the three surveillance statements—'tell me what is going on in my community' (*M*=3.33) and 'tell me what the government is doing' (*M*=3.68). The Alternative media have significantly higher means than the User-generated media and the Institutional media on two surveillance statements. The User-generated media and the Institutional media generally provide low gratification on surveillance measures. Respondents disagreed (statement mean below 3) that these types of media meet surveillance needs on all three statements. Overall, the four types of online media fulfill the surveillance need from a low to a moderate extent (means range from 2.32 to 3.68).

Self-status seeking need. Respondents say that the self-status seeking need is fulfilled to a low extent by the media types. Respondents agree that the Mainstream media provide facts to back up opinions to a significantly greater extent than all other media types (*M*=3.41). The Alternative media provide the same gratification to a significantly greater extent (*M*=3.18) than the Institutional media (*M*=3.02) and the

User-generated media (*M*=2.78). Respondents disagreed (statement means below 3) that any of the four types of online media fulfills the two other self-status seeking gratifications 'tell me whether I am a person of social worth' and 'tell me what I should be proud of'. On 'tell me whether I am person of social worth', the means range from 1.96 (Institutional media) to 2.24 (User-generated). On 'tell me what I should be proud of', the means range from 2.08 (Institutional media) to 2.31 (Alternative & User-generated).

In sum, RQ2a asked if there are significant differences among the four types of online media on the gratifications dimension. ANOVA tests on the construct means and the individual statement means show that there are statistically significant differences among the media types on this dimension. The construct means indicate that the User-generated media provide gratifications across all 25 statements to a significantly greater extent than all other media types. The Alternative media and the Mainstream media provide the gratifications to a significantly greater extent than the Institutional media. Individual statements' means suggest that the User-generated media provide higher gratifications than others on three needs—interaction, relationship, and entertainment. The User-generated media are the only media type that provides all gratifications on relationship and entertainment needs. The Mainstream media provide higher gratifications than other types on three needs—information seeking, utility, and surveillance. The Mainstream media are the only media type that provides all of the surveillance gratifications. The data also show that the User-generated media do not provide any gratification on surveillance and self-status seeking needs. The Institutional media do not provide any surveillance gratification either.

Differences among Media Types on Gratification Opportunities

Research question 2b examines if the differences among four types of online media are statistically significant on gratification opportunities dimension. The gratification opportunities construct has 11 statements with each statement measuring a unique opportunity the users perceive media products offer (e.g., in-depth, convenience, diversity, uniqueness). One-way ANOVA was conducted on the construct and on the statements.

Results—RQ 2b. RQ 2b asks: Are there significant differences among the four types of online media on the gratification opportunities dimension? Results show that the differences among the four types of online media on the construct are statistically significant (F=6.81; p<.01) (See Table 7.4). The Mainstream media (M=3.45) provide significantly higher gratification opportunities than the User-generated media (M=3.34) and the Institutional media (M=3.33). The Mainstream media provide slightly higher gratification opportunities than the Alternative media (M=3.40), but the difference is not statistically significant. Taken together, all four types of media provide gratification opportunities to a moderate extent, and the differences among them are small in this construct. There are no significant differences among the Alternative media, the User-generated media, and the Institutional media in this construct.

Tests on individual statements show that the differences among the four types of media are statistically significant on all 11 statements in the gratification opportunities construct (See Table 19).

Table 19: Gratification opportunity means by media type
(11 Statements, Cronbach's Alpha = 0.94)

	Main	Inst.	Alt.	UG	*F*
Gratification Opportunities Index	3.45a	3.33b	3.40ab	3.34b	$F(3, 4277)=6.81^{**}$
Statements					
Provide surprising information.	3.40b	3.02c	3.59a	3.40b	$F(3, 4282)=59.31^{**}$
Provide in-depth information.	3.45a	3.35a	3.35a	3.07b	$F(3, 4282)=27.08^{**}$
Are convenient to use.	4.00a	3.68b	3.54c	3.60bc	$F(3, 4281)=54.22^{**}$
Are first to provide new information.	3.57a	2.79c	3.08b	2.61d	$F(3, 4281)=178.28^{**}$
Are up to date.	3.85a	3.46b	3.42b	3.08c	$F(3, 4280)=126.48^{**}$
Are diverse.	3.22c	3.32c	3.64b	3.82a	$F(3, 4282)=76.69^{**}$
Are unique.	2.88d	3.20c	3.67b	3.85a	$F(3, 4282)=201.37^{**}$
Are reliable.	3.35b	3.46a	3.04c	2.92d	$F(3, 4282)=71.09^{**}$
Are interactive.	3.04c	3.28b	3.33b	3.44a	$F(3, 4280)=32.55^{**}$
Are user-friendly.	3.70a	3.63ab	3.54b	3.60b	$F(3, 4281)=6.20^{**}$
Are worth my time.	3.52a	3.55a	3.31b	3.37b	$F(3, 4282)=14.89^{**}$

Main=Mainstream media; Inst.=Institutional media; Alt.=Alternative media; UG=User-generated media;
a,b,c: Means with common lowercase letters within a row are not significantly different ($p<.05$) from one another by a Tukey post hoc test;
5-point Likert-like scale; 1=strongly disagree; 5=Strongly agree;
$^{*}p < .05$; $^{**}p < .01$

The Mainstream media have significantly higher means than all other media types on three gratification opportunities. The Mainstream media are significantly more 'convenient to use' (*M*=4.00), 'up to date' (*M*=3.85), and 'first to provide new

information' (*M*=3.57) than the other media types. The Mainstream media have significantly lower means on two statements. They are significantly less 'unique' (*M*=2.88) and less 'interactive' (*M*=3.04) than all other media types.

The Alternative media provide significantly more "surprising information" (*M*=3.59) than all other types of media. The Alternative media are significantly more diverse (*M*=3.64) and significantly more unique (*M*=3.67) than the Mainstream media and the Institutional media. The Alternative media are also significantly more interactive (*M*=3.33) than the Mainstream media. The Alternative media are the only media type that, respondents agree, provides all of the 11 gratification opportunities.

The User-generated media have significantly higher means than others on three statements. The User-generated media are significantly more 'diverse' (M=3.82), more 'unique' (*M*=3.85), and more 'interactive' (*M*=3.44) than all other media types. These media also have a significantly lower means than others media types on two statements—'first to provide new information' (*M*=2.61), and 'reliable' (M=2.92).

The Institutional media are significantly more reliable (*M*=3.46) than all other media types. Responses show that the Institutional media provide significantly more in-depth information (*M*=3.35) than the User-generated media, and about the same extent of in-depth information as the Mainstream media and the Alternative media. The Institutional media are significantly more convenient to use than the Alternative media websites, and more interactive than the Mainstream media. The Institutional media are significantly less diverse (*M*=3.32) and less unique (*M*=3.20) than the Alternative media and the User-generated media.

To summarize, RQ2b asked if there are significant differences among the four types of online media on the gratification opportunities dimension. ANOVA tests on the construct means and the individual statement means revealed statistically significant differences among the media types. The Mainstream media provide significantly higher gratification opportunities than the User-generated media and the Institutional media, and about the same level of gratification opportunities as the Alternative media. Individual statement means of the Mainstream media are significantly higher than other media types on 'convenient to use', 'up to date', and 'first to provide new information'. The Alternative media provide significantly more "surprising information" than other media types. The User-generated media are significantly more 'diverse', more 'unique', and more 'interactive' than others. The Institutional media are significantly more reliable than other media types. Overall, all four types of media provide a moderate level of gratification opportunities.

Niche Overlap

There are six research questions about niche overlap. Each question asks about the niche overlap between two types of online media (e.g., the mainstream media websites versus the Institutional media) on gratifications and gratification opportunities dimensions. Niche overlap analysis shows the extent to which two different media types are similar or different in fulfilling user needs on a gratification dimension. Results are used to predict the level of competition between two types of media. This study used Dimmick's (2003) niche overlap formula to answer research questions 3a to 3f. Analyses were conducted on the same survey measures used to measure niche breadths, and differences among online media types. Niche overlap scores range from 0 to 4 in

which “0” indicates that two types of media provide the same gratifications and gratification opportunities and “4” suggests that there is no overlap at all. The lower the niche overlap score, the higher the competition. Dimmick also considers overlap measures “an index of substitutability or complementarity of two media” (p. 80). A score of “0” would mean that two media are perfect substitutes while higher score would mean that two types of media complement one another.

Results—RQs 3a to 3f. Research question 3a asks: What is the niche overlap between the Mainstream media websites and the Institutional media websites on gratifications and gratification opportunities dimensions? Niche overlap between these two types of online media is 1.16 on the gratifications dimension, and 1.07 on gratification opportunities dimension (See Table 20). Niche overlap measures, that range from 0 to 4 with 2 being the midpoint, are inverse in nature in which lower score means higher overlap. The results (1.16 and 1.07), therefore, indicate that the Mainstream media and the Institutional media have a high degree of overlap on both gratifications and gratification opportunities. Compared to other media type combinations, the Mainstream media and the Institutional media have the second highest overlap on both dimensions. In other words, respondents say that these two types of media are more direct substitutes of one another than all other combinations, except the combination of Alternative media and User-generated media.

Research question 3b asks: What is the niche overlap between the Mainstream media websites and the Alternative media websites on gratifications and gratification opportunities dimensions? Niche overlap analysis shows that the overlap between these two types of online media is 1.20 on the gratifications dimension, and 1.21 on

gratification opportunities dimension. The results suggest that the Mainstream media have a high degree of overlap with the Alternative media on gratifications and gratification opportunities. However, the overlap between the Mainstream media and the Alternative media is lower than the overlap between the Mainstream media and the Institutional media on both dimensions.

Table 20: **Niche overlap between media types**

Between	**Gratifications**	**Gratification Opportunities**	***N***
Main and Inst.	1.16	1.07	1057
Main and Alt.	1.20	1.21	1057
Main and UG	1.34	1.31	1057
Inst. and Alt.	1.24	1.13	1057
Inst. and UG	1.27	1.13	1057
Alt. and UG	1.10	1.00	1057

Scores range from 0 to 4; 0=Complete overlap between two types of websites; 4=No overlap
Main=Mainstream media websites; Inst.=Institutional media; Alt.=Alternative media websites; UG=User-generated media websites;

Research question 3c asks: What is the niche overlap between the Mainstream media websites and the User-generated media media on gratifications and gratification opportunities dimensions? Results show that overlap is 1.34 on the gratifications dimension, and 1.31 on gratification opportunities dimension. This indicates a high degree of overlap between the Mainstream media and the User-generated media. However, the Mainstream media have the lowest overlap with the User-generated media in relation to other media-type combinations on both gratifications and gratification opportunities dimensions. This implies that the Mainstream media and the User-generated media are the least direct substitutes for each other and the least likely to be

in direct competition, as compared to other combinations.

Research question 3d asks: What is the niche overlap between the Institutional media websites and the Alternative media websites on gratifications and gratification opportunities dimensions? The results indicate high overlap between these two types of online media with the overlap score being 1.24 on the gratifications dimension, and 1.13 on gratification opportunities dimension.

Research question 3e asks: What is the niche overlap between the Institutional media websites and the User-generated media websites on gratifications and gratification opportunities dimensions? Overlap between these two types of media is 1.27 on the gratifications dimension, and 1.13 on gratification opportunities dimension. The results indicate high overlap between the Institutional media and the User-generated media.

Research question 3f asks: What is the niche overlap between the Alternative media websites and the User-generated media websites on gratifications and gratification opportunities dimensions? Niche overlap analysis shows that the overlap between the Alternative media and the User-generated media are 1.10 on the gratifications dimension, and 1.00 on gratification opportunities dimension. The results indicate that the Alternative media and the User-generated media have the highest overlap on both dimensions in relation to other media-type combinations. This implies that these two types of media are the most direct substitutes for each other and the most likely to be in direct competition.

Overall, 12 niche overlap scores were calculated in this study—six on the gratifications dimension and six on gratification opportunities dimension. The scores

range between 1.00 and 1.34. This range indicates high overlaps among the six pairs of media on both dimensions. These coefficients—1 to 1.34 on a 4-point scale—indicate that online media users do not perceive the media types differentiate themselves to a great extent in the gratifications and gratification opportunities they provide. This suggests that the media—while not perfect substitutes—tend to provide many of the same gratifications and gratification opportunities. Also on some measures, the types of online media are close to interchangeable. The overlap on gratifications runs generally higher than on gratification opportunities. Respondents prefer to use different types of media to satisfy different needs more than they perceive the media types have differing gratification opportunities. Although the overlap is high among all the media combinations, the most overlap is between the Alternative media and the User-generated media, and the least overlap is between the Mainstream media and the User-generated media on both gratifications and gratification opportunities dimensions.

Niche Superiority

This study asks six research questions (RQs 4a to 4f) about the niche superiority. Niche superiority measures whether the capacity of a media type is higher than its competitor in fulfilling a spectrum of user needs. Using Dimmick's formula, niche superiority was calculated on six pairs of online media. A *t*-test was conducted on each pair to test for significant differences in superiority scores. To calculate niche superiority, the responses to the 25 gratification statements and 11 gratification opportunities statements along five-point Likert-like scale are used. Thus, the maximum value for gratification superiority is 125, and for gratification opportunities is 55. The media type that scores higher on a dimension is considered superior on that dimension.

Results—RQs 4a to 4f. Research question 4a asks: Which media are superior between the Mainstream media websites and the Institutional media websites on gratifications and gratification opportunities dimensions? The Mainstream media have significantly higher superiority scores than the Institutional media on both gratifications and gratification opportunities dimensions (See Table 21). On the gratifications dimension, niche superiority score of the Mainstream media over the Institutional media is 32.60, and score of the Institutional media over the Mainstream media is 18.13. The difference is statistically significant ($t = 18.57$, $p < .01$).

On gratification opportunities dimension, superiority score of the Mainstream media is 14.02, and score of the Institutional media is 9.71. The difference is statistically significant ($t = 9.61$, $p < .01$). The results indicate that the Mainstream media are superior to the Institutional media on both gratifications and gratification opportunities dimensions.

Research question 4b asks: Which media are superior between the Mainstream media websites and the Alternative media websites on gratifications and gratification opportunities dimensions? The Mainstream media have a significantly higher superiority score than the Alternative media on gratification opportunities ($t = 4.89$, $p < .01$). On this dimension, superiority score of the Mainstream media is 15.33 and the alternative media is 12.67. The difference between these two media types on the gratifications dimension is not statistically significant ($t = -.72$, $p > .05$). The superiority score of the Mainstream media on gratifications is 27.27, and the Alternative media is 27.89. The results indicate that the Mainstream media are superior to the Alternative media on gratifications opportunities. But superiority on the gratifications dimension

cannot be determined.

Research question 4c asks: Which media are superior between the Mainstream media websites and the User-generated media websites on gratifications and gratification opportunities dimensions?

Table 21: **Niche superiority on gratifications by media type**

	Gratifications	**Gratification Opportunities**
Mainstream over Institutions	32.60	14.02
Institutions over Mainstream	18.13	9.71
t	*t*(1057)=18.57**	*t*(1057)=9.62**
Mainstream over Alternative	27.27	15.33
Alternative over Mainstream	27.89	12.67
t	*t*(1057)=-.72	*t*(1057)=4.89**
Mainstream over User-Generated	29.48	16.58
User-Generated over Mainstream	32.21	12.53
t	*t*(1057)=-3.03**	*t*(1057)=7.98**
Institutions over Alternative	20.09	12.21
Alternative over Institutions	34.61	13.83
t	*t*(1057)=-14.50**	*t*(1057)=-3.03**
Institutions over User-Generated	19.94	12.80
User-Generated over Institutions	36.91	12.67
t	*t*(1057)=18.32**	*t*(1057)=.25
Alternative over User-Generated	24.85	12.57
User-Generated over Alternative	27.64	10.67
T	*t*(1057)=-2.81**	*t*(1057)=3.61**

Main=Mainstream media; Inst.=Institutional media; Alt.=Alternative media; UG=User-generated media;
**p < .05*; ***p < .01*
Scores on the gratifications dimension range from 0 to 125; 0=No superiority of one type of websites over another; 125=Complete superiority in the entire niche.
Scores on gratification opportunities dimension range from 0 to 55; 0=No superiority of one type of websites over another; 55=Complete superiority in the entire niche.

The User-generated media have a significantly higher superiority score than the Mainstream media on gratifications (t = -3.03, p < .01). On this dimension, superiority score of the User-generated media is 32.21, and the Mainstream media is 29.48.

The Mainstream media have a significantly higher superiority score than the User-generated media on gratification opportunities dimension (t = 7.98, p < .01). On this dimension, the Mainstream media scored 16.58, and the User-generated websites scored 12.53. The results suggest that the User-generated media are superior to the Mainstream media on the gratifications dimension, and the Mainstream media are superior to the User-generated media on gratification opportunities.

Research question 4d asks: Which media are superior between the Institutional media websites and the Alternative media websites on gratifications and gratification opportunities dimensions? The Alternative media have significantly higher superiority scores than the Institutional media on both gratifications and gratification opportunities. On gratifications, the Alternative media score is 34.61 and the Institutional media score is 20.09 (t = -14.50, p < .01). On gratification opportunities, the Alternative media score is 13.83 and the Institutional media' score is 12.21 (t = -3.03, p < .01). Results show that the Alternative media are superior to the Institutional media on both dimensions.

Research question 4e asks: Which media are superior between the Institutional media websites and the User-generated media websites on gratifications and gratification opportunities dimensions? The User-generated media have a significantly higher superiority score than the Institutional media on gratifications (t = 18.32, p < .01). Niche superiority score of the User-generated media on gratifications is 36.91 and the Institutional media is 19.94. On gratification opportunities, the niche superiority

score of the Institutional media is 12.80, and the score of the User-generated media is 12.67. The difference between the scores is not statistically significant ($t = .25$, $p > .05$). The significance tests show that the User-generated media are superior to the Institutional media on the gratifications dimension. Superiority on the gratification opportunities dimension cannot be determined.

Research question 4f asks: Which media are superior between the Alternative media websites and the User-generated media websites on gratifications and gratification opportunities dimensions? The User-generated media have a significantly higher superiority score than the Alternative media on gratifications ($t = -2.81$, $p < .01$), and the Alternative media have a significantly higher superiority score than the User-generated media on gratification opportunities ($t = 3.61$, $p < .01$). On gratifications, niche superiority score of the User-generated media is 27.64, and the Alternative media is 24.85. On gratification opportunities, niche superiority score of the Alternative media is 12.57, and the User-generated media is 10.67. Results show that User-generated media are superior on the gratifications dimension, and the Alternative media are superior on gratification opportunities dimension.

In sum, the User-generated media are superior to all three other types of online media on the gratifications dimension, and the Mainstream media are superior to all others on gratification opportunities dimension. Niche superiority coefficients are highly significant for each media type over the Institutional media on the gratifications dimension, with t values being above 10. The difference between the Mainstream media and the Institutional media on gratification opportunities is also highly significant ($t = 9.62$, $p < .01$).

Audience Perceptions of Online Media Niches

The survey results show that each type of media has a moderate niche breadth on both gratifications and gratification opportunities dimensions (see Table 17). The respondents also suggested that there were high overlaps among the media types (see Table 20), although some media types were perceived by users as superior to others (see Table 21). ANOVA tests on individual statements revealed the niche of each type of media as perceived by the users, by identifying where the differences and similarities are.

Niche of the Mainstream media. The data on the gratifications dimension indicate that online media users perceive the Mainstream media to be fulfilling mainly three needs—information seeking, utility and surveillance. Respondents agree that the Mainstream media provide all seven gratifications relating to information seeking and surveillance needs, and provide five of these gratifications to a greater extent than all other media. The surveillance need differentiates the Mainstream media's niche from other media types on the gratifications dimension, as only Mainstream media provide all the surveillance gratifications. The Mainstream media provide three out of five gratifications on utility need, and two of these gratifications are provided to a greater extent than other media types. Users perceive that the Mainstream media fulfill other needs to a low extent. For instance, the Mainstream media fulfill one out of four gratifications on interaction need, one out of three gratifications on entertainment need, and one out of three gratifications on self-status seeking need. Respondents disagree that the Mainstream media provide any gratification on relationship need.

Results on gratification opportunities that measured the perceived attributes of

online media show that users find the Mainstream media to be more convenient to use, and more up to date than others. The Mainstream media are also first to provide new information. Overall, this media type provides 10 out of 11 gratification opportunities. Respondents disagree that Mainstream media websites are unique.

Niche breadth coefficients, calculated to map the area of each media type's niche, suggest that the Mainstream media have the broadest niche on gratification opportunities, and the third broadest niche on gratifications. Niche overlap results, calculated to find out the extent to which a media type is similar to other media types, indicate that the Mainstream media have the highest overlap with the Institutional media and the lowest overlap with the User-generated media on both dimensions. Niche superiority results, calculated to compare the capacity of the media types in fulfilling user needs, show that the Mainstream media is superior to all other media types on gratifications opportunities dimension, and superior only to the Institutional media on the gratifications dimension.

Niche of the Institutional media. Online media users perceive that the Institutional media provide all gratifications relating to only one need—information seeking—that emerged to be a common niche for all four media types. Respondents say that the Institutional media provide information about users' interests to a similar extent of the Mainstream media and the User-generated media. The Institutional media also provide information that affects the users and their families to a similar extent of the Mainstream media. The Institutional media gratify only one item each on the interaction, entertainment, and self-status seeking needs. Respondents disagree that this type of media provides any gratification on relationship, and surveillance needs.

Results on gratification opportunities indicate that users find the Institutional media significantly more reliable than others—an attribute that differentiates this media type from others on this dimension. The Institutional media provide 10 out of 11 gratification opportunities. Respondents disagree that the Institutional media are first to provide new information.

The Institutional media have the narrowest niche, or provide the narrowest range of gratifications, on both gratifications and gratification opportunities dimensions. Niche overlap results show that the Institutional media are the most similar to the Mainstream media on both dimensions. The Institutional media are not superior to any media on any dimension.

Niche of the Alternative media. The data show that the Alternative media's gratifications niche, as perceived by online media users, includes information seeking, interaction, utility, and surveillance needs. The respondents agree that the Alternative media provide all four gratifications on information seeking need, three gratifications each on interaction and utility needs, and two gratifications on surveillance needs. The Alternative media also provide one gratification each on entertainment and self-status seeking needs. This type of media does not provide any gratification on relationship need. Parts of the Alternative media's gratifications niche are similar to other media types, but its gratifications niche does not match completely with any other media type.

Gratification opportunities results show that the Alternative media provide significantly more surprising information than the other media types. Respondents agree that only Alternative media provide all 11 gratification opportunities.

The Alternative media have the second highest niche breadth on both

gratifications and gratification opportunities dimensions. This media type has the highest overlap with the User-generated media on both gratifications and gratification opportunities, and the lowest overlap with the Institutional media on gratifications and with the Mainstream media on gratification opportunities. The Alternative media are superior to the Institutional media on both dimensions, and superior to only the User-generated media on gratification opportunities.

Niche of the User-generated media. The gratifications niche of the User-generated media includes all gratifications on relationship and entertainment needs, and three gratifications each on information seeking, interaction and utility needs. Respondents say that the User-generated media are the only media type that provides all gratifications on relationship and entertainment needs, differentiating itself from other media types. The User-generated media do not provide any gratification on surveillance and self-status seeking needs.

The data on gratification opportunities show that respondents find the User-generated media significantly more diverse, more unique and more interactive than the other media types. The User-generated media provide a total of nine gratification opportunities. However, the respondents suggest that this type of media is neither reliable nor first to provide new information.

Niche breadth coefficients show that the User-generated media have the broadest niche on the gratifications dimension and a narrowest niche on gratification opportunities. This media type has the highest overlap with the Alternative media and the lowest overlap with the Mainstream media on both gratifications and gratification opportunities dimension. The User-generated media are superior to all media types on

the gratifications dimension.

Summary

This chapter has provided findings of the survey of a national sample of more than 1,100 media users that seeks to find out the niches of four types of online media identified in the proposed typology. The data reveal the extent to which users perceive these online media fulfill their needs and provide various gratification opportunities. The chapter presented results of four sets of research questions regarding niche breadth, differences among four types of online media on gratifications and gratification opportunities as perceived by the users, niche overlap, and niche superiority.

The first set of research questions asked what the niche breadths of four types of online media are on gratifications and gratification opportunities. Results show that all four media types have moderate niche breadths on both dimensions. However, the User-generated media websites have a significantly broader niche than other media types on the gratifications dimension. The Mainstream media websites have a significantly broader niche on gratification opportunities than other media types.

The second set of research questions asked if there were significant differences among the four types of online media on gratifications and gratification opportunities dimensions. The purpose of these research questions was to probe where the differences are among the statements that measure these two dimensions. ANOVA tests found statistically significant differences among the media types on the construct means as well as on the individual statement means. Of the seven needs in the gratifications dimension, the User-generated media fulfill three needs—interaction need, relationship need, and the entertainment need—better than other media types. The Mainstream

media fulfill the information seeking, utility and surveillance needs better than others. Each type of media fulfills the self-status seeking need to a low extent. Results also show that all four types of media provide a moderate level of gratification opportunities. The Mainstream media are significantly more 'convenient to use', and more 'up to date' than others. The User-generated media are significantly more 'diverse', more 'unique', and more 'interactive' than other media types.

The third set of research questions asked what the niche overlaps among the four media types are. One question was asked about each pair of media—totaling six pairs for four types of media. The niche overlap measures indicate a high degree of overlap in each of the six pairs of media types.

The fourth set of research questions asked which media is superior on gratifications and gratification opportunities in a pair of media types. Niche superiority results show that the User-generated media are superior to all three other types of media on the gratifications dimension. The Mainstream media websites are superior to all media types on gratification opportunities dimension.

The next chapter discusses the extent to which findings of both the content analysis and the survey extend existing research. Taking the perspectives of both content creators and users together, next chapter shows how these two studies explain the networked media ecosystem with the niche of each type of online media being identified. Finally, it discusses the limitations of the dissertation and provides suggestions for future studies.

Chapter 8: Discussion

The Internet and digital technologies have changed how various media compete and coexist, and how the audience uses media content. The networked media ecosystem, characterized by numerous content creators and abundant information, has reduced the exclusive power of traditional mass media organizations over creation and distribution of mediated messages. Advertising revenue of the mass media organizations is declining as they face competition from diverse content creators including social institutions, organizations and individuals (Campbell et al., 2014; Gade & Lowrey, 2011; Hollifield, 2011). The transition from a few to numerous media and from scarce to abundant information also empowered users. As users have more content options, they search and use the content that gratifies their needs (Lacy & Sohn, 2011; Tewksbury & Rittenberg, 2012). Users want to interact, develop and maintain relationships with the content creators (Chen, 2011; Hanson & Haridakis, 2008; Park, Kee & Valenzuela, 2009). Unlike the mass audience that was homogeneous, the networked media audience is heterogeneous and fragmented (Dimmick et al., 2011). Audience members, whose individual differences and interests were largely ignored by the mass media organizations in attempts to create content for the broadest range of people, now have considerable control over media content (Mitchell, 2014; Napoli, 2011). Taken together, these changes complicated the media ecosystem and made it hard to define. Understanding the networked media ecosystem requires a framework that is able to explain how numerous content creators position themselves in the ecosystem, as well as how users perceive online news and informational media gratify their needs. There is no such framework currently available.

The purpose of this dissertation was to create and test a framework that would be able to explain the networked media ecosystem. Traditional media economics research that examines strategic problems of media firms tends to focus on the similarities and differences of the content creators alone. The audience gets little attention (Napoli, 2011). To define the networked media ecosystem, both the content creators and the users have to be taken into consideration, as the audience—empowered by more content choices and ability to create content themselves—plays a significant role in determining what the content creators would produce for the Internet, and how that content is used.

This dissertation takes the Theory of the Niche, a theory of media competition and coexistence developed by Ohio State University professor John Dimmick, and extends it to build a framework for the networked media ecosystem. The Theory of the Niche suggests that the media ecosystem works like a biological ecosystem in which numerous populations compete for limited resources. As the ecosystem evolves, new populations enter the ecosystem and the competition for available resources becomes greater. The competition leads populations to differentiate themselves with unique functionalities and coexist with one another. Dimmick et al. (2011) assert that online media tend to differentiate themselves as the networked environment offers opportunities to diversify the gratifications and gratification opportunities.

Guided by the Theory of the Niche, this dissertation has proposed a typology of online news and informational media. It identified four types of online media from the existing literature—(1) the Mainstream media, (2) the Institutional media, (3) the Alternative media, and (4) the User-generated media. It has also identified four primary

functionalities of online media—to inform, to persuade, to mobilize, and to self-present. Based on substantial evidence found in the literature, this dissertation hypothesized that the Mainstream media would perform the inform function better than other online media. The Institutional media would perform the persuade function better than other media. The Alternative media websites would perform the mobilize function better than other media. The User-generated media websites perform the self-present function better than other online media. This helps understand how the content creators differentiate their roles (functions) in the media ecosystem.

The dissertation also examined how users perceive the four types of online media gratify their needs. The Theory of the Niche provides three concepts—niche breadth, niche overlap, and niche superiority—to identify the range of gratifications that each medium provides (breadth); the extent to which two types of media provide similar gratifications (overlap); and the extent to which one medium is superior to another in gratifying a range of needs (superiority). These three concepts led to asking three sets of research questions. The first set of research questions, which contains four questions, asks about the niche breadth of all four types of media (e.g., what is the niche breadth of the mainstream media websites on the gratifications dimension). The second set of research questions ask about the niche overlap of all four types of media. This set contains six research questions—each about the overlap between a pair of media (e.g., what is the overlap between the mainstream media websites and the Institutional media on the gratifications dimension?). The third set of research questions includes six questions about niche superiority. Each question in this set asks which medium in a pair of media is superior in providing a spectrum of gratifications and gratification

opportunities (e.g., which medium is superior between the mainstream media websites and the Institutional media on the gratifications dimension?). Niche breadth, niche overlap, and niche superiority provide information about similarities and differences at the construct level. To identify the differences and similarities at the level of individual gratifications, this dissertation analyzed differences on each gratification statement. This analysis answers a fourth set of research questions that asks if the media produce significantly different gratifications and gratification opportunities.

This chapter of the dissertation begins with discussion of the results of the hypothesis tests that affirm the assumed positions of four types of online news and informational media as intended by content creators. This chapter then discusses the extent to which findings of the content analysis and the survey extend existing research. Both the content analysis and the survey were discussed in relation to each other, which begins to explain the networked media ecosystem, its populations and their niches. The chapter ends with identification of some limitations and suggestions for future studies.

Content Analysis: Online Media as Intended by Content Creators

Dimmick (2003) argued that each media population must differentiate its role to survive in the ecosystem, especially when resources are limited. Two species (e.g., media types) cannot coexist in an ecosystem if they serve the exact same functions to the same extent, and fight over the exact same resources. Dimmick noted, "Similarity in niches leads to strong competition, whereas niche differentiation leads to coexistence" (p. 37).

The data provide evidence that each media type in the proposed typology seeks to have a differentiated position in the ecosystem. The Mainstream media seek to

position themselves as providers of truthful and impartial information. They provide new information that is relatively more objective, and contains multiple expert perspectives. The Institutional media seek to position themselves along *self-present* and *inform* functions, but do not serve any one function to a greater extent than other media types. The Alternative media position themselves in the ecosystem as mobilizers of the public. They do it by facilitating interaction among ordinary people through content created by non-employees, and exposing users to various ideas through hyperlinks. The User-generated media position themselves as self-presenters. The User-generated media create online content to express themselves to people they could not reach during the mass media era.

The content analysis finds that the Mainstream media appear to be maintaining their position in the networked media ecosystem as providers of impartial information. They pay little attention to other functions such as persuasion, mobilization and self-presentation. The data suggest that the Mainstream media position can be better defined by the traditional media norms such as objectivity and transparency (Peterson, 1956; Siebert, 1956), rather than by the norms of the Internet such as hypertextuality and interactivity (Deuze, 2003). The Mainstream media have significantly higher scores than other media on each of the five variables measuring the inform function—immediacy, fact-based, authenticity, multi-expert perspectives, and transparency. Almost all of the 175 Mainstream media articles, analyzed in this study, were less than 24 hours old. Their content is highly fact-based. One out of every two Mainstream media articles contains at least two different types of expert perspectives (e.g., perspective of technocrats, perspective of capitalists, and perspective of bureaucrats).

However, Mainstream media do not contain much content that mobilizes people. It is worth noting that some of the variables measuring the mobilizing function (e.g., publication of content created by non-employees, reprints of content already published elsewhere, and uses of external hyperlinks) represent some key Internet functions (Deuze, 2003) such as interactivity and hypertextuality. The Mainstream media content highly reflects the public interests and contains more non-expert sources than others, but they barely publish content created by non-employees. Previous research shows that the Mainstream media that used to publish selected information in the mass media era are seeking to revise the gatekeeping role, rather than giving it up completely, in the changing environment (Singer, 2001, 2011). The survey data show that Mainstream media use external hyperlinks to a relatively low extent. This finding supports previous research suggesting that Mainstream media seek to avoid using external hyperlinks in efforts to keep users on their websites and control user experiences (Tremayne, 2004, 2005). Chang et al. (2012) found that news editors at traditional US newspapers and televisions prefer internal links (links to their own stories reported previously) to external links. The Mainstream media content is the least persuasive and the least self-presenting, which reiterates their position as providers of impartial information. Direct persuasion and self-presentation might be contrary to the normative values such as objectivity.

The position of the Institutional media in the networked media ecosystem could not be determined by the available data. It was hypothesized that the Institutional media would serve the *persuade* function better than other media types, but the content analysis data do not support this hypothesis. The Institutional media do not perform any

function to a greater extent than all other media types. However, this media type performs all four functions to some extent. The Institutional media perform *self-present* (*M*=4.29) and *inform* (*M*=4.21) functions to a moderate extent, and *persuade* and *mobilize* functions to a low extent. Results on individual attributes show that the Institutional media have higher means than all other media on a persuasive attribute—logic—and a self-presenting attribute—*ego*. The Institutional web content also appeared to be more fact-based than the Alternative media and the User-generated media. The Institutional media lack a primary functionality because content creation is not the primary interest of the institutions studied. However, the findings may still be considered compatible with previous research that suggests that institutions create or sponsor persuasive content (Bogert, 2010; Brochers, 2006). For instance, Campbell et al. (2014) suggest that institutions often create and/or sponsor persuasive content, but this content is published on other media types such as the Mainstream media and the User-generated media in various forms such as advertisement and sponsored content. The Institutional media may have appeared to be informative to some extent, because institutions seek to provide general facts (e.g., who we are, what we do) about them on their websites in order to create and communicate brand identity (Florek, Insch, & Gnoth, 2006).

The Alternative media position themselves in the media ecosystem primarily as mobilizers of the public. This media type serves the *mobilize* function to a significantly greater extent than other media types. The Alternative media use three mobilizing attributes—call to action, content by public, and repackaging—to a greater extent than other media types. The data show that the Alternative media are more direct than others

in asking people to act (i.e., to bring political or social changes); have significantly higher amount of content created by non-employees than all other types of media; and have a higher amount of reprinted content units than others. These mobilizing attributes are seen by scholars as ways to connect with average citizens, and reinforce their views to counter the dominant narratives of the Mainstream media that primarily serve the elites (Bowman & Willis, 2003; Downing, 1984; Harcup, 2003; Massey, 1998). The content analysis data also suggest that the Alternative media serve the inform function to a high extent. The Alternative media score on the inform function (6.04 on an 11-point scale) is also the second highest among all means on all four constructs. However, there are some important differences between the Mainstream media and the Alternative media in how they inform. The Alternative media publish new content on a regular basis, although they do not have the same level of immediacy as the Mainstream media. They use more anonymous sources than the Mainstream media. A majority of the Alternative media content is either opinion-based, or contains fewer facts than opinions. The Alternative media content is also persuasive. They have the highest levels of emotional content (0.75 out of 2) and comparison motive (0.20 out of 1). The self-presentation function is not as prominent in the Alternative media as other functions.

The User-generated media position themselves in the media ecosystem as self-presenters. The data provide evidence that the User-generated media intend to position their websites for self-presentation. Users establish a sense of self in almost all of their contents. Each User-generated media content unit contains the word "I" 1.89 times, and "we" 1.36 times on average. The data also show that 41% of articles (mean score of 0.41 out of 1.00 on historical self) from the User-generated media contain life histories

of the authors, and 75% of the articles disclose authors' beliefs, ideologies or preferences. The data on strategic self-presentation suggest that User-generated articles often highlight authors' personable qualities, skills, competence, strengths or weaknesses. The User-generated media content uses more persuasive attributes than others. This media type uses informal expression (e.g., addressing the audience by the word 'you') significantly more than others. The User-generated media websites serve 'mobilize' and 'inform' functions to a low extent. It is worth noting that these media use external hyperlinks significantly more than others. However, they rarely let others create content on their personal websites. In the sample studied, the User-generated media did not reprint any content that had been previously published by another media source. The User-generated media serve the inform function only better than the Institutional media. They barely provide more than one expert perspective in an article. The User-generated media websites are significantly less fact-based. The immediacy measure indicates that a majority of the User-generated media articles are more than 24 hours old.

Extent to which content analysis findings are similar to existing research. The findings about three out of four media types support the assumption of the Theory of the Niche that media populations differentiate themselves from one another to find a place in the ecosystem (Dimmick, 2003). Each of these three media types serve at least one function significantly better than others. The data didn't find a differentiated role of the Institutional media. This may result from different communication needs of the institutions, whose primary business is not content creation. The Theory of the Niche suggests that failure to differentiate role may displace a media from the ecosystem. But

this assumption may not apply to the Institutional media because they don't rely on the same resources (e.g., advertisement money, audience subscription) for survival as other media do. The data on all four media types support the assumption that different media types may serve the same function to some extent. All four media types in the proposed typology serve all four functions to some extent.

Findings of the content analysis fit in with the previous research to a high extent. Three out of four hypotheses, derived from the existing literature, have been supported. The data provide evidence that the Mainstream media retain their role as providers of impartial information in the networked media ecosystem; the Alternative media mobilize people; and the User-generated media are meant to self-present. The findings about the Mainstream media are consistent with the existing literature. Early media scholars (e.g., McQuail, 1992; Peterson, 1956; Westerstahl, 1983) portrayed the role of the media as providing truthful and impartial information about important issues and helping citizens make better decisions. This function, rooted in the libertarian and the social responsibility theories (Peterson, 1956; Siebert, 1956), requires news media to provide new and objective information, stay transparent about the process of gathering information, and maintain a distance from the people and the organizations being covered (Kovach & Rosenstiel, 2007). Deuze (2003) defined Mainstream media content by its originality (i.e., content produced exclusively for web publication) and the process of gathering (i.e., content created and edited by professionals). Findings in this study indicate that the Mainstream media have retained this role—providers of impartial information—in the networked media ecosystem. They serve the inform function to a significantly higher extent than any other media. Also, most of their content is created

by their own employees. They hardly allow content on their websites created by non-employees.

As suggested in the literature (Atton & Hamilton, 2008; Downing, 2008), the Alternative media have been found to be serving the mobilize function better than other media. The literature suggests that the Alternative media do not only seek to change users' attitudes, but also to change users' behavior (Harlow & Harp, 2012). The findings in this study show that one of every two Alternative media articles contains a call to action (e.g., write to your congressman; stand up to xenophobia), and such calls are made by the authors themselves. However, the suggestion that the Alternative media may use more ordinary sources than other media was not proven in this study. The Mainstream media appeared to use more ordinary sources than other media. In fact, the Mainstream media use both ordinary and elite sources more than other media. This reaffirms the normative role of Mainstream media as mediators between public officials and citizens. Deuze (2003) argued that the Alternative media allow others to create content for them. The findings support this argument. The Alternative media publish significantly more content, created by non-employees, than other media.

The findings of the present study are consistent with findings of the previous studies on User-generated media. Literature indicates that users create content that promote their own individual accomplishments (Hyland, 2011) in order to build favorable public image of the self (Toma & Carlson, 2012). In this study, self-presentation appeared as the primary function of the User-generated media. Users seek to establish a sense of self in their content more than the Mainstream media and the Alternative media. They also disclose information about their social lives. The data

show that nearly half of the User-generated media articles contain anecdotal stories about authors' lives. Every three out of four stories (a score of 0.75 out of 1) contain information about authors' ideologies, beliefs or values. The User-generated media articles also highlight personable qualities of authors. On average, each article contains 1.24 such adjectives. Toma and Carlson had earlier found personality-enhancing attributes on Facebook profiles of individuals. In a 2002 study, Papacharissi found that User-generated media authors use indirect expressive elements such as hyperlinks. This content analysis also found that the User-generated media websites use significantly more external hyperlinks than others.

Extent to which findings are different from existing research. Although the content analysis findings fit in with the existing literature to a high extent, findings regarding the primary function of the Institutional media are not in complete agreement with the existing literature. It was suggested that the Institutional media might perform the persuade function better than other media types (Bogert, 2010; Brochers, 2006). But, the findings show that the Institutional media are less persuasive than most other media—particularly the User-generated media and the Alternative media.

The difference may have emanated from three major sources—(1) varying communication needs of different institutions, (2) reliance of the institutions on other media for distribution of persuasive messages (e.g., advertisement, sponsored content), and (3) different economic motivations. Scholars (Campbell et al., 2014; Martinelli, 2011) suggested that communication needs might often help understand the functionalities of media. These needs may vary from one institution to another. For example, the government websites (e.g., weather, social security) may be meant to

inform the citizens about important policies, issues and events. The religious websites may seek to persuade more. The websites of some non-profit organizations may seek to mobilize people with their contents. The content analysis data indicate that the definition of Institutional media, as a type of online news and informational media, may have been too broad to capture the differences in interests, motivations and goals of different institutions. Also, a sample of five websites is not enough to represent such a wide variety of institutions. For a better understanding of the functions, Institutional media may be divided along various lines (e.g., government versus non-government organizations; for-profit versus non-profit; or advocacy organization versus non-advocacy organizations).

The second cause of the difference between the existing literature and the current study on institutional web functions may be the reliance of the institutions on other media for distribution of persuasive messages. Historically, social institutions relied on the mass media to communicate with citizens (Entman, 2004). Online networks enabled the institutions to create and disseminate messages directly to average people (Lowrey & Gade, 2011), but the institutions still rely on the Mainstream media and the users to a large extent to reach target audiences (Campbell et al., 2014). Institutions are dynamic, and they change strategies in line with their communication needs (Campbell et al., 2014; Hollifield, 2011). So, the goal for creating content on their own websites may be different from the goal for creating or sponsoring persuasive content on other media.

The third cause may be linked to Institutional media' differences in economic motivations from other media types. Creating content is not the primary business of the

social institutions, as it may be for other types of news and informational media (e.g., Mainstream media). The institutions create online content to advance their primary interests by communicating with multiple audiences such as employees, potential customers, citizens, media, and other institutions (e.g., banks). The organization ecology approach suggests that market concerns and instrumental cost-benefit business shape functions of institutions, including news media, to a high extent (Lowrey, 2012, p. 224). Different market concerns and economic motivations may help address the position of the Institutional media in the networked media ecosystem.

How the content analysis extends previous studies. The content analysis extends the existing literature in several ways. First of all, it advances a typology of online content creators that goes beyond the existing literature and contributes to understanding web content. This typology begins to show how different types of online content creators position themselves in the networked media ecosystem. Previous typologies of online media (e.g., Campbell et al., 2014; Hess, 2014) were neither tested, nor developed enough for testing. This dissertation, building on existing typologies, proposed a new typology, which the content analysis tested and broadly supported. This study could be replicated to further test the typology.

This typology of online news and informational media particularly contributes to the understanding of media competition. Scholars (Dimmick, 2003; Hawley, 1944; McKelvey, 1975) insisted that an adequate taxonomy of populations was important to accurately assess competition in an ecosystem, because only populations with similar resources compete. The typology, proposed on the basis that the Internet and digital technologies enabled individuals, organizations and Institutions to create, publish and

distribute content, is the first step in assessing competition in the networked media ecosystem. The content analysis data demonstrate similarities and differences among the media types as they serve all four functionalities to some extent.

Some literature on marketing and advertising is also relevant to the findings of the content analysis. Campbell et al. (2014) proposed that one of the key dimensions for objective classification criteria of online media is 'who creates the content'. The typology tested through this study is a typology of online content creators. It identified four types of content creators. The findings show that each category of online content creators is distinct from another. Statistical analysis found significant differences among them.

The content analysis also furthers the understanding of the extent to which traditional media norms (e.g., objectivity, transparency) are practiced in the networked media ecosystem. The normative theories (McQuail, 1992; Peterson, 1956; Westerstahl, 1983) suggest that the primary job of media is to provide truthful and impartial information. The findings suggest that the Mainstream media serve this function significantly better than others. Other types of media (e.g., Alternative media, User-generated media) practice these norms to a relatively lower extent.

In addition, the content analysis contributes to the scholarships of persuasion, activism, and self-presentation. Traditional persuasion research would focus on content widely known as persuasive such as advertisements (Chang, 2008; Escalas, 2004), political messages (Mutz, 2008; Sproule, 1997), religious messages (Goldberg, 2001) and campaigns (Martinelli, 2011). Activism research would focus mainly on the Alternative media content alone (Atton & Hamilton, 2008; Downing, 1984; Massey,

1998). Self-presentation research would focus on user-generated media or social media (Schau & Gilly, 2003; Hyland, 2011; Papacharissi, 2002). This content analysis examined the extent to which all four types of content creators perform four functions: *inform, persuade, mobilize,* and *self-present*.

Survey: Gratification Niches of Online Media as Perceived by Users

The content analysis tested the proposed typology and revealed how online media sought to position themselves in the media ecosystem. But the networked media ecosystem, with an empowered audience and abundance of choices, cannot be defined only by the intent of content creators. Therefore, the dissertation included a survey to examine the perceived uses and gratifications of media types by the users, as a way of understanding the extent to which the content creators' intents align with the users' wants and needs.

Dimmick (2003) noted that users' wants and needs could be understood by the uses and gratifications approach. Individuals select media for use on the basis of their perceptions about gratifications that different media types provide. The survey examined audience perceptions of four media types on a spectrum of gratifications (e.g., allow me to keep up with current events; provide information about my interests), and a spectrum of gratification opportunities (e.g., convenient to use; up to date). Gratification opportunities are media attributes that enable users to comprehend contents and access media at various times and places (Dimmick, 2003). Like the content analysis, the survey data show that there are statistically significant differences in gratifications and gratification opportunities these four types of online media provide to the audience. The gratifications construct that has 25 survey statements measured seven gratification

needs: information seeking, interaction, development and maintenance of relationship, entertainment, utility, surveillance, and self-status seeking. The respondents agree that each media type provides some gratifications, but some media types provide a broader spectrum of gratifications than others. However, none of the media types provides all the gratifications.

The data indicate that users go to the Mainstream media to gratify mainly two gratification needs—information seeking and surveillance. Although all four types of media fulfill the information seeking need to a moderate extent, respondents agree that the Mainstream media fulfill this need significantly better than other media types. The results indicate that the Mainstream media niche may be differentiated from others by the surveillance need. Respondents agree that the Mainstream media provide several gratifications relating to utility need, and only one gratification each of interactivity, entertainment, and self-status seeking needs. Respondents disagree that the Mainstream media provide any gratification relating to the need of developing and maintaining social relationships. Users agree that the Mainstream media provide 10 out of 11 gratification opportunities. But, there are three gratification opportunities—convenient to use, first to provide new information, and up to date—that users find to a significantly higher level from the Mainstream media than other media types.

The respondents perceive that Institutional media fulfill all gratifications of only one need—information seeking. This type of media fulfills other needs to a low extent. The Institutional media provide 10 out 11 gratification opportunities. Respondents say that the Institutional media are significantly more reliable than all other media. The

Institutional media are more unique than the Mainstream media and more convenient that the Alternative and User-generated media.

The respondents say that the Alternative media fulfill all gratifications of only one need—information seeking—but, this media type fulfills a majority of gratifications of three other needs—interaction, utility and surveillance needs. The Alternative media is the only media type that provide all 11 gratification opportunities. There is only one gratification opportunity—surprising information—that Alternative media provide significantly better than all other media types.

The User-generated media fulfill all gratifications relating to two needs—relationship and entertainment. Fulfilling these two needs exclusively differentiates the User-generated media from all other media in the eyes of users, as no other media type fulfills all gratifications of these two needs. Respondents also agree that they obtain several gratifications relating to information seeking and utility needs from the User-generated media. This type of media provides nine out of 11 gratification opportunities. Respondents say the User-generated media are significantly more diverse, more unique and more interactive than other media types.

Extent to which survey findings support and extend existing scholarship. The survey findings support and add to the findings of some previous studies. The survey adds to the literature on uses and gratifications of the Institutional media and the Alternative media that were rarely explored. Additionally, the data reveal the differences and similarities of four types of online media as perceived by the users.

In a 1997 study, Vincent and Basil found that print media, particularly newspapers, were perceived by users to be fulfilling their knowledge seeking and

surveillance needs. In 2006, Diddi and LaRose found these two needs as major predictable factors to news consumption across media, including cable, broadcast and the Internet. According to the results of the current study, users agree that all four types of online news and information media fulfill information seeking need. However, the Mainstream media are the only media type that fulfills all gratifications of surveillance need. The Alternative media provide some gratifications of surveillance need. These results affirm that users consider non-traditional media (e.g., Institutional media, Alternative media, User-generated media) as potential sources of information.

Since the rise of the Internet and digital technologies, scholars conducted several studies examining the uses and gratifications of the User-generated media. Kaye and Johnson (2004) suggested that the user-generated media content, created by ordinary citizens and bloggers who are interested in creating and maintaining social relationships, draw considerable attention of online media users. Results of the current study show that User-generated media provide significantly higher gratifications than the Mainstream media and the Institutional media. Niche breadth coefficients also suggest that the User-generated media have the broadest niche on gratifications among all four media types.

Scholars pointed out that the networked media ecosystem offered new opportunities giving a rise to users' expectations. For instance, Gade and Lowrey (2011) suggested that networked audience members might seek to interact with content creators about stories, provide ideas, and sometimes even "report and create their own news" (p. 26). The survey results show that the users, indeed, seek to interact with content creators and create content. However, respondents say that only the User-

generated media and the Alternative media allow them to interact with content authors. None of the four media types allows respondents to create content on the media types' websites.

Existing research also shows that users expect online media to provide them with opportunities to network with like-minded people (Ancu & Cozma, 2009; Castells, 2013, Chen, 2011; Ellison et al., 2007; Papacharissi & Rubin, 2000; Park, Kee & Valenzuela, 2009). The survey results reaffirm this assumption. Most of these opportunities are usually fulfilled by the User-generated media, and a few by the Alternative media. Respondents say that the User-generated media are the only media type that provides most of these opportunities (e.g., provide information that helps create, maintain, and extend social relationships). Both of the User-generated media and the Alternative media tell individual users about others with whom they share similar interests.

Lacy et al. (2010) suggested that citizen media, a media type similar to what is called User-generated media in this study, complement the Mainstream news media. Lacy et al. reached this conclusion based on a content analysis of 53 citizen media websites, 86 citizen blogs sites and the 63 daily newspaper websites. That study did not include the perspective of users. The findings of this survey indicate a similar pattern of relationship between the Mainstream media and the User-generated media. The respondents say the Mainstream media gratify their information seeking and surveillance needs, while the User-generated media fulfill their interaction and entertainment needs.

Survey and the theory of the niche. The survey, which tested the theory of the niche by examining the niches of four types of online news and informational media, demonstrates the ability of the theory to explain a complex media ecosystem. The theory (Dimmick, 2003) suggests that each type of media must differentiate itself from other media types to survive in the media ecosystem. Therefore, it is important to identify differences among the media types in order to understand an ecosystem. The survey results show that users perceive the four types of online news and informational media to be different from one another. Users also identified where the differences are. For instance, users agree that the Mainstream media fulfill their information seeking and surveillance needs better than other media.

Each concept of the theory—niche breadth, niche overlap, and competitive superiority—helps identify a particular aspect of the niche. For instance, niche breadth measures the area of a media type's niche along a resource dimension (Dimmick, 2003). The survey data helped calculate the niche breadth of each type of media along two resource dimensions—gratifications and gratification opportunities. Niche breadth analysis revealed that the User-generated media have a significantly broader niche than other media types on the gratifications dimension, and the Mainstream media have a significantly broader niche than other media types on gratification opportunities dimension. Niche overlap measures the extent to which different media types compete with one another in an ecosystem, and can be substitutes for one another. The survey results show strong competition among the media types, although they vary by the amount and types of gratifications they provide. Niche superiority measures the capacity of a media type to provide greater gratifications than other media types. This

concept helped identify the superior media on each of the gratifications and gratification opportunities dimensions. The analytical framework that the theory of the niche provides enables researchers to explain a complex media ecosystem, predict its behavior to some extent. For instance, niche overlap coefficients found in this study may be indicative of strong competition among some types of online media.

The survey also has implications for the Uses and Gratifications, Media System Dependency, the Theory of the Niche as well as the normative theories. A key theoretical implication is that the users do not go to media only for traditional gratifications such as surveillance, orientation or information. Uses of media in the networked media ecosystem also mean participation and self-expression. Users want to participate in the process of gathering, creating and distribution of the content. Users also want to express themselves, instead of being at the receiving end all the time. The Theory of the Niche also shows that it can explain and predict complex media ecosystem. By testing the theory, this dissertation demonstrates the value of the theory as a tool to study the networked media ecosystem.

Building the Networked Media Ecosystem: Populations and the Niches

The networked media ecosystem can be defined as a system that is made up of three interdependent components: (1) the Internet and digital technologies, (2) content creators, and (3) content users. In this ecosystem, the Internet and digital technologies provide the space and facilitate interaction among a large number of content creators and diverse audiences across geographic boundaries. In ecological terms, the Internet and digital technologies create habitats or homes (e.g., online social networks) for various types of content creators, who live on resources coming from content users

(e.g., time and money). Each type of online news and informational media has a differentiated niche, or role, in the ecosystem that helps it secure a share of the available resources. The overall niche of a media type is determined by: (1) roles intended by the content creators, and (2) expectations of the users from the content creators. In this study, the roles intended by content creators have been defined by media functions such as *inform,* and *persuade.* The roles that users expect content creators to play are defined by the gratifications that users seek from online media.

This dissertation proposed that the networked media ecosystem has four types of news and informational content creators—the Mainstream media, the Institutional media, the Alternative media, and the User-generated media. These content creators seek to position them in the ecosystem along four major functions—*to inform, to persuade, to mobilize*, and to *self-present*—depending on their communication needs. The users seek a variety of gratifications from these content creators such as information seeking, interaction, development and maintenance of relationship, entertainment, utility, surveillance, and self-status seeking (Ancu & Cozma, 2009; Chen, 2011; Hanson & Haridakis, 2008; Kaye & Johnson, 2004; Park et al., 2009). This ecosystem also offers various gratification opportunities (e.g., diversity, in-depth-ness) that allow users to consume information anytime, anywhere in any modality (Dimmick et al., 2011; Lacy and Sohn, 2011). The data show that each type of content creator has a differentiated niche from one another, although the niches overlap.

The data provide a better understanding of the ecosystem when findings of both studies are put together and interpreted through the same niche concepts—niche breadth, niche overlap, and competitive superiority. These concepts fit well with the

content analysis findings because of the measurements (i.e., multivariate constructs) used to study four content functionalities. Each construct consisting of a spectrum of content attributes represents a niche dimension similar to the gratifications dimensions. This section combined both studies to explain niche breadth of each media type, and identify niche overlaps and niche superiority on various content (*e.g., inform, persuade*) and gratification dimensions (e.g., gratifications, gratification opportunities).

Niche of the Mainstream media. The combined results of content analysis and survey indicate that the Mainstream media have broad niche on *inform* aspect, and relatively narrow niches on other aspects. The primary functionality of the Mainstream media—to inform—appears to fit well with how the audience uses this media type—for information seeking, utility and surveillance. The content analysis data suggest that the Mainstream media content contains all informative attributes—immediacy, fact-based, authenticity, multi-expert perspective, and transparency—to a greater extent than other media types. Users say Mainstream media fulfill three out of seven needs in the gratifications dimension—information seeking, utility, and surveillance—to a greater extent than other media types, indicating a high niche breadth in the *inform* aspect of the gratifications dimension. Results on gratification opportunities also highlight Mainstream media's role in providing information. Niche breadth analysis shows that the Mainstream media have the broadest niche on gratification opportunities dimension, meaning that this media type offers more content choices across a variety of time periods and spatial locations in which content is accessible (Dimmick et al., 2011). High breadth on niche opportunity also means that the Mainstream media are more attractive to users than other media types (Dimmick, 2003).

The Mainstream media occupy relatively narrow niches in the remaining parts of the explored ecosystem in terms of both content functionality and the gratifications this media type provides. The content analysis shows that the Mainstream media serve three other functionalities—to *persuade*, to *mobilize* and to *self-present*—to a low extent. The users say that the Mainstream media provide a few or no gratification on several needs such as interaction, relationship entertainment, and self-status seeking. Niche breadth analyses on the survey data, which is divided into two dimensions, show that the Mainstream media have the third highest niche breadth on the gratifications dimension.

Both studies identify some areas where Mainstream media are similar to the other media types. Dimmick (2003) defines this similarity as overlap that is indicative of the level of competition among media types. The higher the similarities between two media types, the higher the competition is. For instance, all three other media types serve the inform functionality—primary functionality of the Mainstream media—to some extent. Respondents also agree with this fact by saying that several media fulfill their information seeking, utility and surveillance needs. Niche overlap coefficients on survey data indicate that the Mainstream media are the most similar to the Institutional media and the least similar to the User-generated media. The data show that the Mainstream media have many new competitors in the networked media ecosystem. Users say that many other media gratify their needs that could only be satisfied by a comparatively small number of media in the mass media era.

The Mainstream media content demonstrates a strong pattern of superiority in serving the *inform* function. The content analysis shows that each of the informative

attributes is provided by the Mainstream media to a significantly greater extent than other media types. The survey data also show a pattern of Mainstream media dominance in fulfilling three related needs—information seeking, surveillance and utility needs. Niche superiority results on survey data indicate that Mainstream media are superior to the other media types on gratification opportunities, meaning that Mainstream media have greater capacity than other media types in providing content choices broadly across time and space. The Mainstream media are superior only to the Institutional media on the gratifications dimension.

Niche of the Institutional media. The data from both studies suggest that the Institutional media have low to moderate niches across content functions and gratification dimensions. The results show that the institutional web content fits partially with how this content is used by the users. For instance, the content analysis show that this media type has moderate niche on *self-present* and *inform* functions. But users say the Institutional media fulfill only one need—information seeking—to a moderate extent, which is related to the *inform* function. Users disagree that the Institutional media provide any gratification relating to relationship need, which is close to the self-presentation function of the content. Users say Institutional media provide only one gratification relating to interaction need. Niche breadth analysis on gratifications and gratification opportunities suggest that the Institutional media have moderate niche breadth on both dimensions. Niche breadth analysis also shows that the Institutional media provide the same range of gratification opportunities as the User-generated media and the Alternative media. However, the Institutional media do not

have a broader niche than any other media type in any aspect of content or gratifications.

The fact that the Institutional media serve all four functions, and provide gratifications and gratification opportunities, indicates this media type's overlap with other media types. The Institutional media provide almost all of the content attributes, with a few attributes (e.g., logic of persuade functionality; ego of self-present functionality) being provided to a greater extent than other media types. The niche overlap coefficients show that the Institutional media have a high degree of overlap with all other media types.

Neither the content analysis nor the survey shows any pattern of superiority in the ways Institutional media position themselves in the ecosystem, and the ways they are used by the audience. Content analysis data do not support the hypothesis that Institutional media' primary functionality is to persuade. The survey data show that the Institutional media are not superior to any other media type on any of the dimensions—gratifications and gratification opportunities.

Niche of the Alternative media. The content analysis data suggest that the Alternative media have moderate niches on two content aspects, inform and mobilize, and relatively narrow niches on other aspects (e.g., self-present). These findings fit with the survey data as users perceive that the Alternative media fulfill the information seeking, interaction, and surveillance needs to a moderate extent. The Alternative media appear to be providing content that mobilizes people to a greater extent than other media types. This means that Alternative media provide interactive attributes (e.g., call

to action, content by public) to a greater extent than other media types. The users perceive that Alternative media fulfill interaction needs to a greater extent than the Mainstream media and the Institutional media. The Alternative media content appears to be the second most informative. The survey also found that users consider Alternative media to be the second most important source for gratifying information seeking and surveillance needs. Niche breadth analysis on survey data show that Alternative media have about the same niche breadth as the Mainstream media and the User-generated media on the gratifications dimension. The Alternative media have about the same niche breadth as all other media on gratification opportunities dimension, indicating that this media type offers content choices across a variety of time periods and spatial locations to a similar extent than other media types.

The Alternative media are the most similar to, or have the highest niche overlap, with the User-generated media in the mobilize aspect, and with the Mainstream media in the inform aspect. Results show that Alternative media's closest competitor is the User-generated media in terms of fulfilling the interaction need of the users, and the Mainstream media in terms of fulfilling the information seeking and surveillance needs. Niche overlap results, calculated on a whole gratification dimension (gratifications), suggest that Alternative media are the most similar to the User-generated media on both gratifications and gratification opportunities dimension.

Results of both the content analysis and the survey demonstrate that the Alternative media are superior to some other media types in some content and gratification aspects. The content analysis show that Alternative media are superior to all other media types on mobilize function, and to the User-generated media and the

Institutional media on inform function. Users perceive that the Alternative media are superior to the Institutional media and the User-generated media on gratification opportunities, and superior to the Institutional media on gratifications.

Niche of the User-generated media. The User-generated media content has broader niches than all other media types along *self-present* and *persuade* functions, and relatively narrow niches along *inform* and *mobilize* functions. The survey results support the content analysis data: (1) by revealing that the User-generated media provide a broader range of gratifications than other media types, and (2) by demonstrating that content functions of the User-generated media fit well with the gratifications this media type provides. The gratifications that User-generated media provide are more linked to self-presentation and persuasion than with information and mobilization. The User-generated media content appears to provide a broad range of self-presenting (e.g., social affiliation, historical self, phenomenal self, and strategic self) and persuading attributes (e.g., phatic expression, normative appeal) to a greater extent than other media types. The respondents say that the User-generated media are the only media type that helps them create, maintain, and extend social relationship. This media type fulfills interaction and entertainment needs to a greater extent than other media types, and provides a majority of gratifications on information seeking and utility gratifications needs. Niche breadth analysis on survey data shows that the User-generated media have a moderate but broader niche than other media types on the gratifications dimension. The User-generated media have about the same niche breadth as the Alternative media and the Institutional media on gratification opportunities dimension.

Content analysis results show that the User-generated media have the most overlap with the Alternative media on persuasion function, and with the Institutional media on self-presentation function. Niche overlap analysis on survey data indicates that the User-generated media have the highest overlap with the Alternative media on both gratifications and gratification opportunities dimensions.

The results demonstrate User-generated media's superiority in two aspects of content—persuade and self-present—and the gratifications dimension. The User-generated media content appeared to be more self-presenting and more persuasive than all other media types. Niche superiority analysis on survey data shows that the User-generated media are superior to all other media types on the gratifications dimension.

In sum, the findings of two studies show that each of the four media types has moderate niches along some content functions and gratification aspects while and narrow niches along other functions and aspects. All four media types have a high degree of overlap with one another, which indicates a high degree of competition in the ecosystem. The results demonstrate superiority of each media type, except the Institutional media, to others in at least one functionality.

Practical Implications

Both studies in this dissertation show that each of the four media types occupies a niche within the domain of news and information, which was once controlled by the Mainstream media alone. All four media types examined in this dissertation demonstrate some degree of abilities to perform all four content functions (*inform, persuade, mobilize* and *self-present*). Users also say that they receive gratifications and gratification opportunities to a moderate extent from each media type. These findings

begin to explain why the mainstream news media are losing audience—one of their many challenges in the networked media ecosystem (Lowrey & Gade, 2011). As the non-traditional media types (e.g., User-generated media, Alternative media) learn the craft of content creation and publication, the audience gets more choices that fulfill their wants and needs.

Both studies demonstrate ecological similarities or overlap among the four media types. For example, the same function is performed by two or more media types to some extent. Users also believe that they receive some of the same gratifications and gratification opportunities from two or more media types. Niche overlap coefficients indicate a highly competitive environment in the networked media ecosystem (Dimmick, 2003). Ecology scholars note that highly competitive environment implies three things:

First, it may cause partial displacement for old media outlets (e.g., Mainstream media) as new media types carve out niches in the ecosystem. For instance, the Mainstream media that once controlled the entire ecosystem would have a smaller niche in the networked media ecosystem than their niche during the mass media era. The Mainstream media would lose audience to other media types that serve some functionalities and provide some gratifications better in the networked media ecosystem.

Second, high competition results in market segmentation as different media types seek to focus on different gratification segments in attempts to coexist in the ecosystem. For instance, the Mainstream media focus on information seeking and

surveillance needs, while the User-generated media focus on interaction and relationship needs.

Third, there are cases when extremely high competition may cause competitive exclusion meaning a population may be completely wiped out from the ecosystem. Dimmick (2003) suggests that competitive exclusion or complete extinction almost never happens in the media ecosystem (p. 37).

The dissertation identified some areas that are poorly served by all four types of news and informational media. For instance, all four media types serve the persuade function to a low extent. The media types could find ways to better serve the mobilize and the self-present functions. These functions are related to some of the key needs of the online media users such as connectivity, interactivity, and ability to create, maintain, and extend social relationship (Castells, 2009; Chen, 2011; Ellison, Steinfield & Lampe, 2007; Gade, 2011). The survey respondents say that only Alternative media and the User-generated media fulfill interaction need to a moderate extent. The users also say that the User-generated media are the only media type that fulfills their relationship need. Castells (2011) suggested that the power in network results from the ability to organize, bridge and set goals.

Contribution of the Study

This dissertation has several contributions to media management scholarship, particularly the strategic management of online media. First, it advances a new typology of web content that helps understand the networked media ecosystem. Scholars insisted that an adequate typology of diverse populations is crucial to map out an ecosystem, and an adequate understanding of the use of similar resources is crucial to understand

the degree of competition—a key premise of strategic management (Dimmick, 2003; Hawley, 1944; McKelvey, 1975; Porter, 1998). The typology identifies three different types of competitors of the legacy media. A national survey, that used the typology as a framework for online media populations, shows the extent to which online media compete with one another.

Second, the dissertation used two methods to understand the perspectives of both content creators and the users. The literature indicates that the audience must be considered to understand the niches of the online media, because of: shifting control, abundance of content choices, and the audience's ability to participate and co-create content. Taken together, this dissertation has begun to show how to describe the ecosystem by looking at both the content and the way the content is used.

Third, a methodological contribution of this dissertation is the development of four indices to measure media functionalities. These indices are replicable and applicable to a large amount of web content. They can be used to examine characteristics (informative, persuasive, mobilizing, and self-presentational) of web content.

Fourth, the study tested the Theory of the Niche in a way that helped map out the content typology. This theory has previously been used to examine the audience perspective and measure competition among various media populations. But its assumptions were not used before to formulate a typology that explains a complicated media ecosystem. This highlights the power of the theory to explain an unknown world.

Limitations and Suggestions for Future Studies

Limitations. Like most studies, this study has some limitations. The researcher left out entertainment content from the content analysis and focused only on content that people use for informational purpose. The reason for focusing on this particular type of content is that the dissertation sought to understand online media's role in helping people understand the world around them and make informed decisions about life. The entertainment content serves an opposite function, which is to give people a respite or break from real life (Greenwood, 2008). A second limitation of the content analysis is its focus on textual content only. It did not analyze other forms of content (e.g., photo, videos, and graphics). Including multiple forms of content in the analysis is beyond the scope of this dissertation. A third limitation of the content analysis is its sample. Compared to the size of the Internet, sample for the content analysis is small. Five websites from each category of content might be a very small sample, especially for the Institutional media. The Institutional media is such a broad category that five websites cannot capture the differences in interests, motivations and goals of different institutions. A fifth limitation of the content analysis is that it has not covered content published on social media websites.

There are limitations relating to the survey as well. First, it is nearly impossible to find a sample that represents people from all walks of life in a large country like the United States. The email database, used as a sampling frame for the survey, did not have email addresses of all US residents who use the Internet. Second, the response rate to the email survey was poor. Studies show that the response rate to the online surveys is decreasing (Pew Research Center, 2012). The poor response rate led to the purchase

of responses from Amazon Mechanical Turk (MTurk), a commercial response pool. Despite these sampling limitations, the large number of survey responses and demographic similarities between respondents and US Census data suggest that the survey captured a good snapshot of how online news and informational media are used.

Suggestions. This dissertation synthesized previous scholarly works on online media categorizations, took important ideas from those works, and built a new typology of online news and informational media. The data provide substantial support for the typology, except in the case of Institutional media. Future studies may redefine the Institutional media along different lines (e. g., government versus non-government organizations; for-profit versus non-profit; or advocacy organization versus non-advocacy organizations) and update the typology. As the media ecosystem keeps changing, it is very important to continue research on online media categorization. Ecology scholars suggest that categorization is a prerequisite to understanding competition in an ecosystem (Dimmick, 2003; Hawley, 1944; McKelvey, 1975). Future content analysis may look at more websites for each category and help improve the typology. Future studies can explore other forms of content including image, video, and graphic. Future studies may also look at content created by these four types of content creators and published on social networking websites such as Facebook and Twitter.

Survey is a snapshot of attitudes. As the change process continues, it's wise to continue to monitor how users perceive the positions of online news and informational media in the networked media ecosystem. Future studies may continue to survey people to examine changes in their attitudes towards online media. Also, this study did not study uses of various media platforms, especially mobile. Future study could consider

studying the extent to which mobile news and informational media occupy similar or distinct niches to other forms of web-based media.

Conclusion

The networked media ecosystem, characterized by numerous media outlets, abundant information, and empowered users, appeared to be complicated and hard to define (Campbell et al., 2014; Gade & Lowrey, 2011). In this ecosystem, content is created by individuals, organizations and social institutions, in addition to traditional media organizations. Online media users, who have numerous content choices and are able to create and publish content themselves, play an important role in determining how content is produced and consumed online. Making sense of this changing media ecosystem has remained a challenge for scholars and media firms.

The purpose of this dissertation was to define the networked media ecosystem by examining the perspectives of both content creators and users. Guided by the Theory of the Niche (Dimmick, 2003), the dissertation sought to create a framework that would explain how numerous online news and informational media position themselves in the networked media ecosystem, and how users perceive these media. With the above-mentioned research objective, this dissertation proposed a typology that helps explain the networked media ecosystem. The proposed typology identified four types of online news and informational media—the Mainstream media, the Institutional media, the Alternative media, and the User-generated media—that serve four functionalities: to inform, to persuade, to mobilize, and to self-present. Following the logic of the Theory of the Niche that each media type must serve a function better than other media types to survive in the ecosystem, four hypotheses were proposed. Each hypothesis assumed a

primary functionality for each media type. The typology and the hypotheses were tested through a content analysis that examined 700 units of content with 175 units from each media type.

The content analysis data support the typology, as three out of four hypotheses have been supported. The supported hypotheses are: The "to inform" function is more apparent in the mainstream media websites than other media; the "to mobilize" function is more apparent in the alternative media websites than other media; and the "to self-present" function is more apparent in the user-generated media websites than other media. The hypothesis, which is not supported, was: The "to persuade" function is more apparent in the Institutional media than other media. The content analysis also identified the extent to which each media type serves all four functionalities, the extent to which media types are similar or different, and if a media type is superior to other media types on any function.

To understand how users perceive the four types of online news and informational media, the dissertation conducted a national survey (N=1103) of the residents of the United States who use Internet. The survey examined the extent to which the four media types, as perceived by users, provide a range of gratifications and a range of gratification opportunities—two dimensions that help explain how media are used by the audience (Dimmick, 2003). The survey was designed to answer four sets of research questions about: (1) the differences among media types in how they provide gratifications and gratification opportunities, (2) niche breadth of the four media types on gratifications and gratification opportunities dimensions (3) niche overlap among the

media types on gratifications and gratification opportunities, and (4) niche superiority on these two resource dimensions.

The survey data found statistically significant differences among the media types on gratifications and gratification opportunities both at the construct level and the statement level. The survey results show that each type of the four news and informational media has a moderate niche breadth on both gratifications and gratification opportunities dimensions. The User-generated media appeared to have a broader niche than other media types on the gratifications dimension, and the Mainstream media websites appeared to have a broader niche than other media types on gratification opportunities dimension. The survey data found strong overlaps in niches of the four media types. Niche superiority results show that the User-generated media are superior to all three other types of media on the gratifications dimension. The Mainstream media websites are superior to all media types on gratification opportunities dimension.

Taking both studies together, this dissertation demonstrates that each of the four types of online news and informational media carved out a position in the networked media ecosystem, which was once dominated by a few mass media organizations. The results indicate strong competition in the market of news and informational media. However, the media types appeared to be differentiating their niches, which would enable them to coexist in the same ecosystem. By combining the perspectives of both content creators and users, the dissertation demonstrate how broad or narrow the actual niche of each media type is. It also identifies the degree of competition among the

media types. The dissertation contributes to scholarship by testing the Theory of the Niche that appears to be an effective theory to explain the networked media ecosystem.

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Appendices

Appendix A: Codebook—Content Analysis

Unit of Analysis: Individual Article

Some rules regarding top stories: Fixed content such as forms (e.g., tax return forms), books (e.g., Constitution, Bible, Quran), gadgets (e.g., subscribe to our emails), and advertisements is not coded. A few steps will be followed to identify such content.

- Title must be linked to a specific article, not to homepage of a subsection containing multiple other headlines.
- The linked page must NOT belong to a different website. For instance, a coder has found an article (title and lead) in one of the top spots of the homepage of *The Huffington Post.* Once the coder clicked on the title, the coder found him/herself on a completely different website. In such case, coder should go back to the website of *The Huffington Post,* and skip to the next top spot.
- Content must have a dateline with specific date of publication
- Content dated by month is assumed to be on the website for at least a month. Such content is coded as more than 14 days old.

If no eligible article is found on the homepage, code content on pages named "newsroom", or "News", "News & Events" etc. For institutional media, this can be accepted because institutional media content has been defined as a tool to promote their original content. This means, content may be their secondary priority while the products are its first priority.

V1: DATE

Day when the article was published. This will be coded using the Month-Day-Year format. For example, a story published on May 04 will be coded as 05/04/2015. Choose Month, Day and Year using the following dropdown menus (on Google Forms). Google Forms will automatically put the date in the right format. Link to the Google form is https://docs.google.com/forms/d/1t7e3FKtQQV5-5smU5Qu4_7iP4XrZridOrhAm11Ks_hE/viewform

V2: WEBSITE

Code as:

1. www.nytimes.com (The New York Times)
2. www.cbsnews.com (CSB News)
3. www.foxnews.com (Fox News)
4. www.huffingtonpost.com (Huffington Post)
5. www.npr.org (National Public Radio)
6. www.nlm.nih.gov (US National Library of Medicine)

7. www.jw.org (Jehovah's Witness)
8. www.splcenter.org (Southern Poverty Law Center)
9. https://www.chase.com/ (Chase)
10. http://web.mit.edu (Massachusetts Institute of Technology)
11. www.Alternet.org (Alternet)
12. www.villagevoice.org (Village Voice)
13. http://www.chicagoreader.com/ (Chicago Reader)
14. http://disinfo.com/ (Disinfo)
15. http://www.goodnewsnetwork.org (Good News Network)
16. http://www.ilind.net/ (Ian Lind)
17. http://polizeros.com/ (Bob Morris)
18. http://www.mahablog.com/ (Barbara O'Brien)
19. http://thescoop.org/ (Derek Willis)
20. http://Supak.blogspot.com/ (Scott Supak)

V3: TIMELINESS (To Inform-*Immediacy*)

Look at the time stamp.

Code as:
If the article is:

0. More than 14 days old
1. Eight to 14 days old
2. Two to seven days old
3. Less than 24 hours old

V4: AUTHOR-WEBSITE RELATIONSHIP
(To Mobilize—*Public participation in content creation*)

Find the relationship of the author with the media outlet that publishes the article. Look at the biography of the author (clickable link or at the end of the article). In case of no byline (author not identified) or no mention about who the author of the article is, it will be considered "authored by an employee". If there is a byline without details about that person, it will be counted as "authored by an employee".

Code as:

0: Authored by an employee(s)
1: Coauthored by employee and non-employee
2: Authored by a non-employee
9: Not applicable (e.g., in case the article is a reprint)

V5: REPRINT (To Mobilize—*Collaboration*)

Find if the article was already published elsewhere. Commonly such acknowledgement is provided at either of three places:

(1) At the credit line/dateline/byline in which name of the website where the article was published first is given, or

(2) At the end of the intro [says something like, reports …websites], or

(3) At the end of the article [say something like the article was published at …website or this article is a reprint from ….website]. Articles from news agencies (e.g., AP, AFP, Reuters) are considered reprint.

Look at these three places to find out if there is an announcement or indication that the article is a reprint.

Code as:

0: No

1: Yes

V6: ARTICLE TOPIC (To Mobilize—Public Sphere)

Public sphere content refers to articles about issues and topics relating to concerns and interests shared by public (e.g., common wealth such as streets, highways and park; political, economic and social issues that affect public interests). Broadly, public sphere content falls into the following categories.

Government. (e.g., the president, the vice president, executive office of the president, the Congress, Senate House, courts, federal agencies and commissions, state and local government, and departments run by the government)

Diplomacy. (e.g., news about US embassies, consulates or other diplomatic missions that advance public interests)

Healthcare policy. (e.g., criticism of, or public debate on health issues)

Education. (e.g., museums, public displays, quality of education, research standards, common core, administration of schools universities, debate on issues that affect education such as bullying at schools)

Social services. Public services provided by government or private organizations such as food subsidies, job training, subsidized housing, adoption, community management, policy research, and lobbying.

Crime and justice. Law enforcement (e.g., taking reports for crimes, investigating crimes, gathering and protecting evidence, arresting offenders), prosecution, courts and corrections.

Land use. (Zoning, acquisitions, project development, agriculture)

Transportation. (e.g., aviation industry, waterborne transportation, roads, highways, traffic, transportation safety issues, pipeline and hazardous materials safety)

The environment. (Climate change and global warming, biodiversity, natural disasters, wildlife, clean energy, pollution, water scarcity, overpopulation, farming, urbanization, nuclear issues)

Social and/or political protest or activism. Organized public effort making collective claims to press for changes (e.g., sustained campaigns, strikes, procession, sit-in, boycotts).

Look at the headline, deck (subhead) and the first three paragraphs of the article to determine article topic.

Code as:

0: No
1: Yes

V7: INTRO STRUCTURE (To Inform--*Fact-Based*)

If the article's intro was written following the "hard-facts-first story structure. Facts refer to answers of questions who, what, when and where.

Who: The individual(s) or organizations involved with the event or issue.
What: The event or issue—what happened.
Where: The place(s) where the event(s) took place.
When: Time of the event.

Opinion is a viewpoint, statement, or judgment about a matter/event normally regarded to be subjective because opinion rests on grounds not enough to produce absolute certainty, and opinion is the result of interpretation of facts or emotion.[3]

Assertions, **if…then**, **cause-effect**, and **relationships** are considered opinions if not attributed.

Examples of opinions:

1. Right-wing heads just **pretty much** exploded this week. It was **terrible**.
2. The prosecution **seems** arbitrary, selective, and deliberately punitive.
3. **Surely** some of their executives will be going to prison, right? … … ... **Of course not**.

Look at the headline, deck (sub-head) and the first three paragraphs of an article.

Code as:

0. Opinions appear before facts
1. Two or less facts appear before opinions
2. Three or more facts (All of Who, What, When and Where) are visible before opinions

V8-V11: USES OF EXPERT SOURCES (To Inform—*Authenticity*)

Expert sources are people, organizations or published documents (e.g., reports, studies, books or data sources) attributed in the article. Expert sources are assumed to be both credible and removed from the partisan outcomes relevant to their expertise.

[3] The definitions in bold have been collected from Khalaf's (2015) dissertation (pp. 259-260; Appendix A).

Important to know.

- Secondary sources (when a source cites another source) are also considered expert sources if facts or opinions are attributed to secondary sources.
- A reference to an expert, organization or published document will not be considered a source until any fact or opinion is said to be received from that reference.

Not Expert Sources:

- Sources that are not technocrats, capitalists or bureaucrats (see V5-V7 for definitions).
- Author(s) of the article.
- University students.

Following four variables are related to this variable.

V8: Expert Source: Technocrats (To Inform—*Authenticity*)

Technocrats are educators, theologians, economists, academics, scientists, engineers and researchers. This category also includes organizations or published documents (e.g., published articles by media, report by research organizations etc.)

Professionals (e.g., doctors, lawyers) who have knowledge of certain areas and are engaged in research activity are also considered technocrats.

Experts (e.g., prosecutors) who are public officials and represent the government (e.g., states, municipal corporations in the states, the United States government, their agencies or officials) are **NOT** considered technocrats. They are considered bureaucrats.

The author(s) is not considered a source.

Code as:

0: No
1: Yes

V9: Expert Source: Capitalists (To Inform—*Authenticity*)

Capitalists are business owners, company executives, employers, corporations, companies, businesses, business leaders (e.g., executives of chambers of commerce), and banks. To be considered a capitalist, affiliation of the attributed sources (e.g., business or organization) must have been mentioned in the article.

The author(s) is not considered a source.

Code as:

0: No
1: Yes

V10: Expert Source: Bureaucrats (To Inform—*Authenticity*)

Bureaucrats are public officials, government officials, police, and military officials. The author(s) is not considered a source. This category also includes organizations or published documents (e.g., investigation report by security agencies

such as Transport Security Administration—TSA, or the Department of Homeland Security).

Code as:

0: No
1: Yes

V11: Expert Sources: Total (To Inform—*Authenticity*)

Count the total number you have got from previous three (0-3).

V12: MULTIPLE EXPERT PERSPECTIVES (To Inform)

Look if the result of the variable called—Expert Source: Total—is 2 or higher.

Code as:

0. No
1. Yes

V13: ANONYMOUS SOURCES (To Inform—*Transparency*)

Unidentified sources to which information (e.g., Facts, Opinion) is attributed to.

Partially identified sources are also considered anonymous. Partial identification means that the information provided is not enough to find out the source. One example of partial identity is when an ordinary person's name and country are provided (e.g., Gill, England) with no other details.

Also, paraphrases, assertions, or facts attributed to people, organizations or published documents that are partially identified.

Consider a source anonymous when information is attributed to a group of people (e.g., experts said, authorities said, community leaders said) without identifying any particular organization or individuals.

The key to code this variable for the coder is to ask her/himself: Is the information enough to find out the person(s) if needed to be contacted?

Code as:

0. All sources are anonymous
1. Some sources are anonymous
2. All sources are identified
9. Not Applicable (e.g., in case there is no source mentioned)

V14: USE OF NON-ELITE SOURCES (To Mobilize—*Ordinary sources*)

Sources who are not technocrats, capitalists, or bureaucrats. Examples of non-elite sources are: Ordinary citizens, eyewitnesses, participants in an event, victims, relatives of victims.

- References to community leaders, activists, and community members are also considered non-elite sources.
- Reference to a generalized group of people (e.g., community members) will be considered one source unless individuals from the group is identified separately.

Code as:

0. No non-elite source used
1. One non-elite source used
2. Two non-elite sources used
3. Three or more non-elite sources used

V15: USE OF FIRST PERSON SINGULAR (To Self-Present—*Ego*)

Count how many times the word "I" or "My" or "Me" was used in the article by the author. Don't count if the word "I" or "My" or "Me" is in attributed quotes or paraphrases.

Code as:

0. No first person singular used
1. Used once.
2. Used twice.
3. Used three or more times.

V16: USE OF FIRST PERSON PLURAL (To Self-Present—*Sense of Social Affiliation*)

Count how many times the word "We" or "Our" was used in the article by the author. Don't count if the word "We" or "Our" or "Us" is in attributed quotes or paraphrases.

Code as:

0. No first person plural used
1. Used once.
2. Used twice.
3. Used three or more times.

V17. USE OF SECOND PERSON (To Persuade—*Personalized Message*)

Count how many times the word "You" or "Your" was used in the article, including the title, **by the author only**. Don't count if the word "You" or "Your" is in attributed quotes or paraphrases. This can be done by using the search option for words with caution. Coders must make sure that the word is not in attributed quotes or paraphrases.

Code as:

0. No second person used
1. Used once.
2. Used twice.
3. Used three or more times.

V18: USES OF "SHOULD" OR "COULD" (To Persuade—*Normative Appeals*)

Look in the article to find if any of these two words—should and could—was used in the article. Examples: I need a new laptop and it **could** be a birthday present for me; We believe that all people **should** have access to lifesaving medicines. These words may come in other forms too (e.g., Should not, Could not, shouldn't, couldn't). If there is no source used in the article, references to these words will be attributed to the author. Coders may use the search option to find these words but they must read the paragraph carefully to make sure if the word is attributed to a source or it is a word of the author her/himself.

Code as:

0: Words "Should" or "Could" not used at all
1: Words "Should" or "Could" used by **either** source(s) (quotes, paraphrase) or author(s)
2: Words "Should" or "Could" used by **both** source(s) and author(s)

V19: HISTORICAL ACCOUNT OF SELF (To Self-Present)

Find if the author uses any anecdote/story from author's own life experiences in the body of the article.

Code as:

0: No
1: Yes

Don't code biographical descriptions (e.g., accomplishments, affiliations, and degrees) of the author(s) at the end of the story or sidebar.

V20: SELF-DISCLOSURE (To Self-Present)

Find if the author uses word(s) disclosing author's belief, ideologies and biases etc. Find if any verb that refers to one's belief, ideology and bias has been used (e.g., I think, I believe, I propose, I argue, my favorite etc.).

Code as:

0: No
1: Yes

V21: STRATEGIC SELF-PRESENTATION (To Self-Present)

Find if the author(s) use(s) any adjective(s) highlighting the author(s)' personable qualities, skills, competence, honesty, strengths or weaknesses.

Code as:

0. No adjective (read the description of the variable) used
1. One such adjective used
2. Two such adjectives used
3. Three or more such adjectives used

V22: EMOTION (To Persuade)

Code if the article uses emotion words that explicitly express emotion such as happiness, sadness, anger, surprise etc. Emotion words are defined as:

2. Words whose meanings are **affective**
3. Words whose meanings have **pleasantness** or **unpleasantness** and **arousal components** (Altarriba & Bauer, 2004, p. 392).

Here (next page) is a list of emotion words[4]:

Affection	Content	Excited	Hysterical	Obsessed	Unhappy
Afraid	Delighted	Furious	Joy	Sad	Upset
Alert	Depressed	Glad	Lonely	Scared	Zealous
Angry	Depressed	Happy	Love	Serious	
Annoyed	Despair	Hate	Mad	Sorry	
Anxious	Discouraged	Hopeful	Moody	Thrilled	
Cheerful	Disgusted	Hurt	Nervous	Troubled	

Look at the body of the article to find out if there is any word expressing emotion.

Code As:

0. No emotion expressed
1: Emotion expressed by **either** source(s) (quotes, paraphrase) or author(s)

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[4] The list of emotion word has been collected from Altarriba & Bauer, 2004; Altarriba, Bauer & Benvenuto (1999). The lists that these authors used contain some words that can be both emotional and rational. We used the words that are purely emotional.
Altarriba, J., & Bauer, L. M. (2004). The distinctiveness of emotion concepts: A comparison between emotion, abstract, and concrete words. The American journal of psychology, 389-410.
Altarriba, J., Bauer, L. M., & Benvenuto, C. (1999). Concreteness, context availability, and imageability ratings and word associations for abstract, concrete, and emotion words. Behavior Research Methods, Instruments, & Computers, 31(4), 578-602.

2: Emotion expressed by **both** source(s) and author(s)

V23: HYPERLINKED WEBSITES (To Mobilize-*Openness to Ideas*)

Count the number of websites connected by external hyperlinks. Please remember, this is NOT a count of external hyperlinks. This is a count of linked websites identified through uses of external hyperlinks. If an article provides links to multiple articles of the same website (e.g., nytimes.com/aaaaaa; nytimes.com/bbbbbb), it will count as one. If an article provides links to two different articles of two different websites (e.g., nytimes.com/aaaaaa; washingtonpost.com/bbbbbb), it will count as two.

To see the hyperlinked URL, put cursor on hyperlinks on the document (saved on MS doc). They are either:

- **In bold**
- **Underlined or**
- **In different color**

There is no need to search for hyperlinks if you have already found hyperlinks to three different websites in an article.

What about social media pages? Hyperlinks to the social media pages of the website-under-analysis will not be considered external hyperlinks. For instance, if coders code an article by the *New York Times* and the article provides links to social media pages belonging to the *New York Times or* the author*,* this will not be counted as hyperlinked websites. If linked social media pages belong to sources or other people or organization, social pages will be considered hyperlinked website.

Code as:

0. No hyperlinked website
1. One hyperlinked website
2. Two hyperlinked websites
3. Three or more hyperlinked websites.

V24: ACTION STATEMENT BY SOURCE (To Persuade—*Comparison motive*)

When an attributed source (e.g., celebrity) uses a sentence(s) that contains words in imperative mood. Such sentences make commands or entreaties or issue instructions (Brooks, Pinson & Wilson, 1997). Usually imperative mood includes no sentence subject. But action statement can include a subject.

Examples:

Do it.
You do it.
You must do it.
Let's do it.
Please do it.

Don't code sentence(s) containing conditional (e.g., you should do it; you could do it).

Code as:

0: No;
1: Yes

V25: ACTION STATEMENT BY AUTHOR (To Mobilize—*Call to action*)

When the author(s) uses a sentence(s) that contains words in imperative mood. Such sentences make commands or entreaties or issue instructions (Brooks, Pinson & Wilson, 1997). Usually imperative mood includes no sentence subject. But action statement can include a subject.

Examples:

Do it.
You do it.
You must do it.
Let's do it.
Please do it.

Code as:

0: No
1: Yes

Don't code sentence(s) containing conditional (e.g., you should do it; you could do it).

V26-29: REWARDS/THREATS (To Persuade—*Logic*)

This variables measure logics used by author(s) and/or attributed source(s) to persuade audience members. **Rewards** (benefits) and **threats** (disadvantages) are often used as logic to persuade for acting or not acting in ways intended by the author(s) or attributed source(s).

Rewards here mean potential benefits or advantages for certain action(s). Example of rewards include beneficial features of a product (e.g., car) or service, positive outcomes of a new law, rewards from God for going to church.

Threats have been defined as potential disadvantages for certain action(s). Examples of threats include problematic features of a product (e.g., low mileage on a car), negative outcomes of a new law, punishments for doing sinful acts, outcomes of a natural disaster etc.

Following four variables are related to rewards and threats.

Key to Code These Variables

- There needs to be a clearly stated connection (i.e., cause and effect among the actors, action/inaction and reward/threat).
- These statements sometimes follow these structures: **if…then, cause-effect, if/once…can/will etc., urge (action)…for (benefit), threaten/warn/caution (with/of disadvantages)…for (action).**

- See if the potential rewards/punishments for individual(s) or organization(s) are related to action/inaction of the same individual(s) or organization(s).

V26: Rewards for Action (To Persuade—*logic*):

Code when the author(s) of an article or an attributed source(s) explains rewards for an action favorable to the author or the source.

Example 1: *"Successful detection of CKD [Chronic Kidney Diseases] will help patients save money, experience greater freedom in diet and lifestyle."*
This sentence is aimed at persuading doctors and kidney patients to use a new test for chronic kidney disease for rewards such as saving money and greater freedom in diet and lifestyle.

Example 2: *"Once they verify their identity, the taxpayers can confirm whether or not they filed the return in question".*
This sentence is aimed at persuading taxpayers, who were filing tax returns, to use an online tool for identity verification.

Don't code a neutral message containing words of rewards if the message's target audience (e.g., individuals such as citizens, consumers, drivers, patients; or organizations such as government, business, non-profits) and intended action cannot be determined.
For example, *"A punishing drought is forcing a reconsideration of whether the aspiration of untrammeled growth that has for so long been the state's engine has run against the limits of nature".* In this sentence, threats of a natural disaster have been explained with no concrete action expectation or reward from any individual or organization.

Look at headline, deck (sub-head), and the entire body of the article to find out sentence(s) offering rewards for action.

Code as:
0: No
1: Yes

V27: Threats for Action (To Persuade—*Logic*)

When the author(s) or an attributed source(s) uses threats to warn against action, product or idea not favorable to the author of an article or the attributed source(s).

Example 1: *"Doctors warn against using home remedies to try and treat skin".*
In this sentence, doctors warn skin patients against a remedy not favorable to doctors.

Don't code a neutral message containing words of threats if the message's target audience (e.g., individuals such as citizens, consumers, drivers, patients; or organizations such as government, business, non-profits) and intended action cannot be determined.
Look at headline, deck (sub-head), and the entire body of the article to find out sentence(s) with threats for action.

Code as:
0: No
1: Yes

V28: Threats for No Action (To Persuade *Logic*):

When the author(s) or an attributed source(s) uses threats to explain the negative consequence of not acting in a way intended by the author(s) or the attributed source(s).

Example 1: *"Failure to detect CKD (Chronic Kidney Disease) will lead to increased expenses, restrictions in diet and lifestyle…."*.
In this sentence, the author threatens physicians and patients with costs and loss of freedom if they don't use a recommended test.

Example 2: "Greg Smith, 51, said he was considering moving to Washington State because of his distress at what he described as the state's slow response to the drought"
In this sentence, a businessman in California threatens the government for not acting in the way he wants.

Don't code a neutral message containing words of threats if the message's target audience (e.g., individuals such as citizens, consumers, drivers, patients; or organizations such as government, business, non-profits) and intended action cannot be determined.

Look at headline, deck (sub-head), and the entire body of the article to find out sentence(s) with threats for action.

Code as:
0: No
1: Yes

V29: Rewards/Threats—Total (To Persuade—*logic*)
Count the total number you have got by adding the results of V26, V27 and V28 (0-3).

Appendix B: Survey

This study asks you questions about content on four types of websites: Mainstream news websites; Websites of institutions; Alternative media websites; and User-generated media websites. Briefly, these websites are defined as follows:

Mainstream news websites: Mainstream news websites are websites where professionals (e.g., journalists) create and edit content. Such websites include websites of traditional newspapers, televisions and radio as well as online-only media (e.g., The New York Times, CNN, FOX, NPR, Huffington Post).

Websites of institutions: These websites are the websites of social institutions such as businesses (e.g., walmart.com, apple.com etc.), government (e.g., irs.gov, weather.gov), non-profit organizations (e.g., NGO websites), religious websites (www.jw.org) and educational institutions (e.g., Stanford.edu).

Alternative media websites: These are websites of non-mainstream or radical media that work to raise ideas not existent within the mainstream media websites (e.g., Mother Jones; alternet.org; villagevoice.org).

User-generated media websites: These are personal websites (e.g., personal blogs) run by individuals.

Default Question Block
This section asks questions about your use of online content.

Q1. How much time in the past week did you spend on the mainstream news websites (examples: New York Times, CNN, Fox, NPR, Huffington Post)? (---hours -----minutes)

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Q2. How much time in the past week did you spend on the websites of institutions (examples: walmart.com; apple.com; irs.gov; stanford.edu)? (---hours -----minutes)

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Q3. How much time in the past week did you spend on alternative media websites (examples: Mother Jones, alternet.org; villagevoice.org)? (---hours -----minutes).

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Q4. How much time in the past week did you spend on personal websites of other individuals (examples: personal blogs)? (---hours -----minutes)

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This section asks questions about your perception regarding the gratifications that you seek from the mainstream news websites. Please click the responses that best reflect your opinion.

Q5. Mainstream news websites:

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Allow me to keep up with current events.	1	2	3	4	5
Provide information about my interests.	1	2	3	4	5
Provide information that affects me or my family.	1	2	3	4	5
Provide information that I can share on social media (e.g., Facebook, Twitter).	1	2	3	4	5
Allow me to create content on their websites.	1	2	3	4	5
Allow me to interact with the content authors.	1	2	3	4	5
Tell me about others with whom I share similar interests.	1	2	3	4	5
Provide information so I can participate in discussions.	1	2	3	4	5
Provide information that helps me create new social relationships.	1	2	3	4	5
Provide information that helps me maintain social relationships.	1	2	3	4	5
Provide information that helps me extend social relationships.	1	2	3	4	5

Q5. Mainstream news websites (Continued):

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Help me get away from everyday worries.	1	2	3	4	5
Make me happy.	1	2	3	4	5
Entertain me.	1	2	3	4	5
Help me prepare for daily activities.	1	2	3	4	5
Help me form opinions about important issues.	1	2	3	4	5
Allow me to compare my opinions to other people's opinions.	1	2	3	4	5
Help me develop my critical thinking skills.	1	2	3	4	5
Help me develop my career.	1	2	3	4	5
Tell me what is going on in my community.	1	2	3	4	5
Tell me what political leaders are really like.	1	2	3	4	5
Tell me what the government is doing.	1	2	3	4	5
Tell me if I am a person of social worth.	1	2	3	4	5
Tell me what I should be proud of.	1	2	3	4	5
Provide facts to back up my opinions.	1	2	3	4	5

Q5. Mainstream news websites (Continued):

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Provide surprising information.	1	2	3	4	5
Provide in-depth information.	1	2	3	4	5
Are convenient to use.	1	2	3	4	5
Are fast to provide new information.	1	2	3	4	5
Are up to date.	1	2	3	4	5
Are diverse.	1	2	3	4	5
Are unique.	1	2	3	4	5
Are reliable.	1	2	3	4	5
Are interactive.	1	2	3	4	5
Are user-friendly.	1	2	3	4	5
Are worth my time.	1	2	3	4	5

This section asks questions about your perception regarding the gratifications that you seek from the institutional websites. Please click the responses that best reflect your opinion.

Q6. Institutional websites:

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Allow me to keep up with current events.	1	2	3	4	5
Provide information about my interests.	1	2	3	4	5
Provide information that affects me or my family.	1	2	3	4	5
Provide information that I can share on social media (e.g., Facebook, Twitter).	1	2	3	4	5
Allow me to create content on their websites.	1	2	3	4	5
Allow me to interact with the content authors.	1	2	3	4	5
Tell me about others with whom I share similar interests.	1	2	3	4	5
Provide information so I can participate in discussions.	1	2	3	4	5
Provide information that helps me create new social relationships.	1	2	3	4	5
Provide information that helps me maintain social relationships.	1	2	3	4	5
Provide information that helps me extend social relationships.	1	2	3	4	5

Q6. Institutional websites (Continued):

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Help me get away from everyday worries.	1	2	3	4	5
Make me happy.	1	2	3	4	5
Entertain me.	1	2	3	4	5
Help me prepare for daily activities.	1	2	3	4	5
Help me form opinions about important issues.	1	2	3	4	5
Allow me to compare my opinions to other people's opinions.	1	2	3	4	5
Help me develop my critical thinking skills.	1	2	3	4	5
Help me develop my career.	1	2	3	4	5
Tell me what is going on in my community.	1	2	3	4	5
Tell me what political leaders are really like.	1	2	3	4	5
Tell me what the government is doing.	1	2	3	4	5
Tell me if I am a person of social worth.	1	2	3	4	5
Tell me what I should be proud of.	1	2	3	4	5
Provide facts to back up my opinions.	1	2	3	4	5

Q6. Institutional websites (Continued):

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Provide surprising information.	1	2	3	4	5
Provide in-depth information.	1	2	3	4	5
Are convenient to use.	1	2	3	4	5
Are fast to provide new information.	1	2	3	4	5
Are up to date.	1	2	3	4	5
Are diverse.	1	2	3	4	5
Are unique.	1	2	3	4	5
Are reliable.	1	2	3	4	5
Are interactive.	1	2	3	4	5
Are user-friendly.	1	2	3	4	5
Are worth my time.	1	2	3	4	5

This section asks questions about your perception regarding the gratifications that you seek from the alternative media websites. Please click the responses that best reflect your opinion.

Q7. Alternative media websites:

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Allow me to keep up with current events.	1	2	3	4	5
Provide information about my interests.	1	2	3	4	5
Provide information that affects me or my family.	1	2	3	4	5
Provide information that I can share on social media (e.g., Facebook, Twitter).	1	2	3	4	5
Allow me to create content on their websites.	1	2	3	4	5
Allow me to interact with the content authors.	1	2	3	4	5
Tell me about others with whom I share similar interests.	1	2	3	4	5
Provide information so I can participate in discussions.	1	2	3	4	5
Provide information that helps me create new social relationships.	1	2	3	4	5
Provide information that helps me maintain social relationships.	1	2	3	4	5
Provide information that helps me extend social relationships.	1	2	3	4	5

Q7. Alternative media websites:
(Continued):

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Help me get away from everyday worries.	1	2	3	4	5
Make me happy.	1	2	3	4	5
Entertain me.	1	2	3	4	5
Help me prepare for daily activities.	1	2	3	4	5
Help me form opinions about important issues.	1	2	3	4	5
Allow me to compare my opinions to other people's opinions.	1	2	3	4	5
Help me develop my critical thinking skills.	1	2	3	4	5
Help me develop my career.	1	2	3	4	5
Tell me what is going on in my community.	1	2	3	4	5
Tell me what political leaders are really like.	1	2	3	4	5
Tell me what the government is doing.	1	2	3	4	5
Tell me if I am a person of social worth.	1	2	3	4	5
Tell me what I should be proud of.	1	2	3	4	5
Provide facts to back up my opinions.	1	2	3	4	5

Q7. Alternative media websites:
(Continued):

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Provide surprising information.	1	2	3	4	5
Provide in-depth information.	1	2	3	4	5
Are convenient to use.	1	2	3	4	5
Are fast to provide new information.	1	2	3	4	5
Are up to date.	1	2	3	4	5
Are diverse.	1	2	3	4	5
Are unique.	1	2	3	4	5
Are reliable.	1	2	3	4	5
Are interactive.	1	2	3	4	5
Are user-friendly.	1	2	3	4	5
Are worth my time.	1	2	3	4	5

This section asks questions about your perception regarding the gratifications that you seek from the user-generated media websites. Please click the responses that best reflect your opinion.

Q8. User-generated media websites:

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Allow me to keep up with current events.	1	2	3	4	5
Provide information about my interests.	1	2	3	4	5
Provide information that affects me or my family.	1	2	3	4	5
Provide information that I can share on social media (e.g., Facebook, Twitter).	1	2	3	4	5
Allow me to create content on their websites.	1	2	3	4	5
Allow me to interact with the content authors.	1	2	3	4	5
Tell me about others with whom I share similar interests.	1	2	3	4	5
Provide information so I can participate in discussions.	1	2	3	4	5
Provide information that helps me create new social relationships.	1	2	3	4	5
Provide information that helps me maintain social relationships.	1	2	3	4	5
Provide information that helps me extend social relationships.	1	2	3	4	5

Q8. User-generated media websites:
(Continued):

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Help me get away from everyday worries.	1	2	3	4	5
Make me happy.	1	2	3	4	5
Entertain me.	1	2	3	4	5
Help me prepare for daily activities.	1	2	3	4	5
Help me form opinions about important issues.	1	2	3	4	5
Allow me to compare my opinions to other people's opinions.	1	2	3	4	5
Help me develop my critical thinking skills.	1	2	3	4	5
Help me develop my career.	1	2	3	4	5
Tell me what is going on in my community.	1	2	3	4	5
Tell me what political leaders are really like.	1	2	3	4	5
Tell me what the government is doing.	1	2	3	4	5
Tell me if I am a person of social worth.	1	2	3	4	5
Tell me what I should be proud of.	1	2	3	4	5
Provide facts to back up my opinions.	1	2	3	4	5

Q8. User-generated media websites:
(Continued):

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Provide surprising information.	1	2	3	4	5
Provide in-depth information.	1	2	3	4	5
Are convenient to use.	1	2	3	4	5
Are fast to provide new information.	1	2	3	4	5
Are up to date.	1	2	3	4	5
Are diverse.	1	2	3	4	5
Are unique.	1	2	3	4	5
Are reliable.	1	2	3	4	5
Are interactive.	1	2	3	4	5
Are user-friendly.	1	2	3	4	5
Are worth my time.	1	2	3	4	5

This section asks some demographic questions.

Q9. Age. Write your age.

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Q10. Ethnicity. Check the response that best describes your ethnicity.

Caucasian-American
African-American
Hispanic American
Asian-American
Native American
Non-US

Q11. You gender

Female
Male

Q12. Education. Identify the highest level of education you have.

Less than High School
High School / GED
2-year College Degree
4-year College Degree
Master's Degree
Doctoral Degree
Professional Degree (JD, MD)

Q. 13. Income. My income in 2014 was (to the nearest thousand dollars)

Thank you