

ONLINE NEWS USE OF PHABLETS, SMARTPHONES,
TABLETS AND PERSONAL COMPUTERS:
THE INFLUENCE OF OPINION LEADERSHIP AND DEMOGRAPHICS

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ABSTRACT

With the continual evolution of technology, media habits towards the news have also altered based on technological and social reasons. This study seeks to evaluate how the introduction of large screen cell phones have impacted other digital media and legacy media. In addition, social influences would be explored in the adoption of phablets for news use. Modeled after the premise of the Mobile Contingency Theory (Thorson, Shoenberger, Karaliova, Kim & Fidler, 2015), this study seeks to better understand the role of social influence on online news functions as well as the impact of online news sharing. The theoretical underpinnings of social influence will be based on the Two Step Flow of Communication (Katz & Lazarsfeld, 1955) while the impact of phablet adoption and online news sharing can be explained by the Diffusion of Information (Rogers, 1995). A representative national sample based on demographics including gender, age and income, participants (n=1,001) was used for this online survey. Based on the research questions and hypothesis, the findings revealed there was an inherent strength of opinion leadership and early adoption as strong predictors in spite of demographics. While they seem like similar variables, and may measure the same thing, results show that they were uniquely separate variables in spite of the strong convergent validity.

Chapter 1: Introduction

The dominance of legacy media (newspaper and television) as a primary source of news has been challenged in recent years with the rise of alternative news platforms. Online news sources have led a change in the way news is perceived and read (Sundar & Nass, 2001). The introduction of news offerings via websites, portals, social media, and more recently apps, has resulted in an increase in the use of online news. This has also led to the higher adoption of various devices such as computers, tablets, and most recently mobile phones for news (Westlund, 2008).

The changing landscape for news has always been influenced by technological imperatives. Over the last few years, the rise of mobile and portable electronic technology has seen news production and journalism taking on new forms to accommodate the medium (Westlund, 2013). This study seeks to build on the mobile contingency theory (Thorson, Shoenberger, Karaliova, Kim & Fidler, 2015) and attempt to understand the influence of underlying social decisions that led people to switch from legacy media over to new technology for news consumption. In particular, the focus will be on the newest four devices that retrieve online news. The devices include: traditional mobile smart phones, tablets, phablets, and personal computers. Phablets possess the same characteristic similar to a regular smartphone but have slightly larger screen sizes that range between 5.5” and 7” (Bolkan, 2014). Understanding the role of demographics, especially age and income, will also shed light on the factors that influence device adoption. This study will examine the social constructs and the influences of networks in the adoption process.

This study will likely be of interest to advertisers as well as operators of news organizations, in that we uncover key influencing factors that lead to news consumption across these devices.

Chapter 2: Literature Review

News and New Technology

The first newspapers produced from the penny press in 1833 are often considered the beginning of commercial news (Schudson, 1978). The revolutionary penny press technology birthed the concept of the modern newspaper and a new way to consume news. As technology evolved, new technologies were developed, and people adapted to new ways of consuming news. In the 1930s, radio became the new technological medium of interest. Television came to dominance in the 1950s (Meltzer, 2010). Today, the new kid on the block is online news, while newspaper, radio, and television are now considered “legacy” media.

As technology transitioned into the 1990s, online news sources have been regarded with both suspicion and interest (Flanagin & Metzger, 2000). The battle between an incumbent and an emerging technology is not new. During the technological transition between radio and television news, and despite television’s seeming superiority over radio because of its visual component, radio was still perceived as superior because of its ability to offer live coverage and portability (Barnouw, 1975). Likewise, the technological shift towards online news initially faced its critics who cited credibility issues (Flanagin & Metzger, 2000) due to the fact that anyone could create and edit information in an online platform (Johnson & Kaye, 1998). Interestingly, Johnson and Kaye (1998 & 2000) also discovered that credibility in the news is not as important a factor in news consumption than it was in decades past. This is because the attitudes of the end-users and consumers of the media have changed over time. As such, the factors that govern media use are intrinsically dependent on not only the technological imperative but also how technology changes the lifestyles of the consumers who in turn create different criteria for news and media adoption.

While legacy news has traditionally been only supported by one specific device type (i.e., print for newspapers, radio for radio news and television for television news), online news is supported by several devices, including personal computers, smartphones and tablets. According to Viswanath and Chen (2006), technological clusters are formed when adopters use multiple devices within a “technological cluster” interchangeably to reinforce a habit or a medium use. As such, adoption of one technology would increase the use of other devices within the same technological cluster. Dutta-Bergman (2004) refers to this as “media complementarity” as an addition to the popular media displacement theory that suggests that the use of one device would displace the use of another. Chyi and Chadha (2012) found in their study that smartphones, tablets, iPads, Amazon Kindle, and other electronic readers are significantly correlated in their ownership. As such, “technological clusters” demonstrate that adoption of newer devices for news can be more readily spread to a different device within the same technological cluster. Therefore, in looking at online news media, the four primary devices that utilize online news media that will be evaluated are personal computers, traditional smartphones, tablets and the new class of smartphones known as phablets.

Chapter 3: Theoretical Framework

Diffusion Theory Sheds Light on Growth of Mobile Device Use

While personal computers have been the frontrunner device for utilizing online news for several years, technological advancements in portability and accessibility have given rise to the popularity of other devices. The introduction of wireless routers permeated the use of wireless internet cards on computers which saw the advent of laptops. This transition towards portability eventually led to the smartphone. Westlund (2012) describes how the mobile device has been transformed from being used for simple communication to a sophisticated device that serves as a mini-computer. The functions on mobile phones range from being a music player, web browser, gaming device, camera, shopping tool, a GPS, and video player while still maintaining the functions of a phone. While the phone has continued to be called “phone,” the term “mobile” today describes a device that embodies these multiple functions. The 2014 Pew Report on mobile technology use showed that 90% of Americans own a mobile phone and 58% of all Americans own a smartphone, that is, a phone that connects to the internet. Tablets such as the iPad, Amazon Fire HD, and Nook, are also popular devices used for news consumption because of their large screen sizes and many functions that can be found on a smartphone save for calling capabilities (Westlund & Fardig, 2015).

With the introduction of the iPhone 6 and the Samsung Galaxy Note, we have seen a rise of a new mobile device called the phablet. A phablet is a hybrid device that has retained all the attributes of a smartphone crossed with the large screen functionality of a tablet. With a larger screen than a regular phone, a phablet offers greater interactivity between the user and the device through the cross-interaction of the screen. This new class of mobile devices has gained

considerable traction as a technological innovation. Because of the popularity of phablets, their sales are expected to top laptop and tablet sales by 2015 (Bolkan, 2014).

Everett Rogers' Diffusion of Innovation theory (1995) highlights how technological adoption takes place over several phases. In looking at the current onset of the phablet trend, it would be reasonable to suggest that users who adopt the phablets as their primary phone device before and during the first half of 2015, would be considered early adopters or the early majority of this technology. Early adopters are often opinion leaders and influencers and tend to be financially sound with a higher education level (Rogers 2010). In addition, early adopters of innovations are often regarded to be more technologically savvy (LaRose & Atkins, 1991).

Mobile Contingency Theory

Thorson, Shoenberger, Karaliova, Kim and Fidler's (2015, p.16) mobile contingency theory "posits that choice of communication devices depends on demographics, attitudes about content held by the decision maker, and the functions or tasks that are desired." These reasons provide an additional insight that technology alone is insufficient to predict news adoption on new devices. The importance of sociological reasons such as the demographics and the influences of one's social circle would affect the task and function of one's need and use for news. The model is tested here as seen in Figure 1. While Thorson et al. (2015) have shown the importance of news affinity, professional journalists, and credibility, this study attempts to ascertain the role of social influences as a possible contingency variable in the adoption of news use especially within the online news medium.

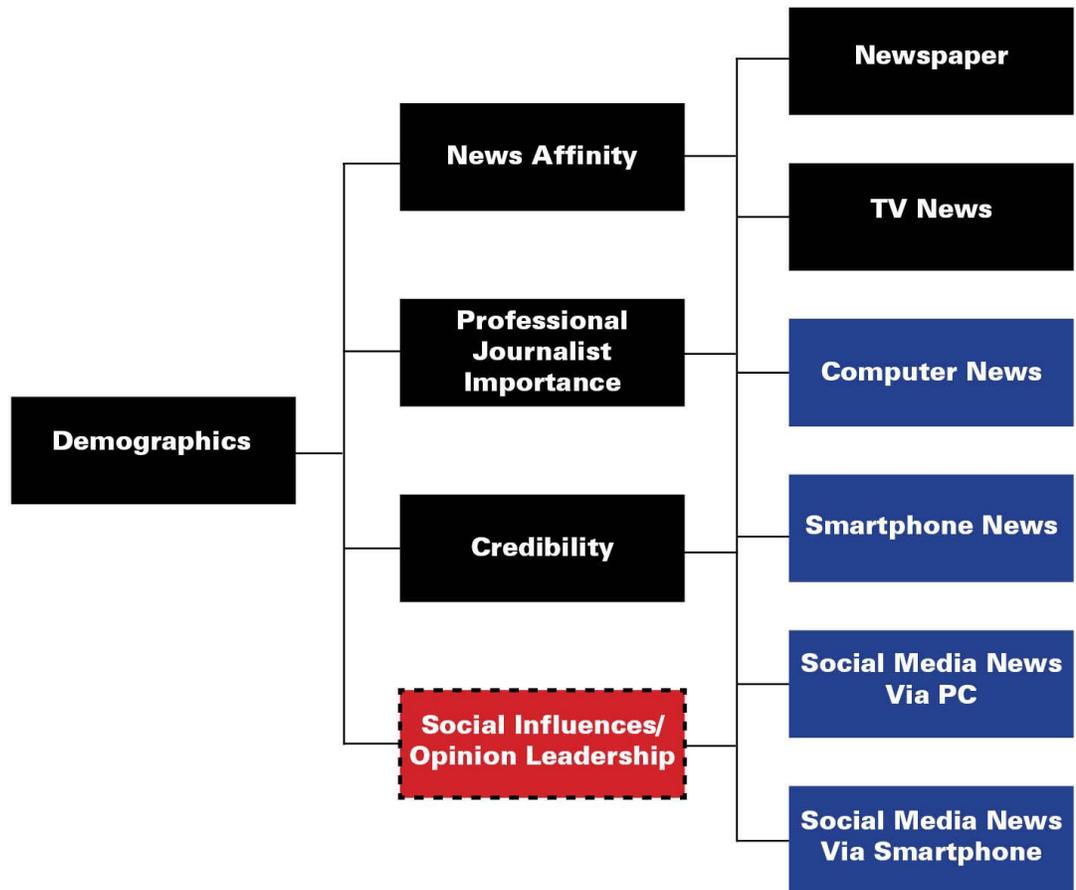


Figure 1: The role of predicted social influences within the mobile contingency model.

Influence and Two Step Communication Processes

To understand the adoption of news use for mobile phones, the idea of influence and information flow should first be examined. Fishbein and Ajzen (1975) reviewed the relationship among attitudes, beliefs, and behaviors. They demonstrated that beliefs influenced attitudes, which in turn influenced intentions, which in turn influenced behaviors. The notion that attitudes can be learned, demonstrates a key concept as to how beliefs and behaviors can be altered. Attitudes can be altered if an individual believes that there are consequences to a behavior, and they will make modifications to best suit psychological needs to cope in different situations.

Social rewards and consequences should thus be explored through the impact of social influences.

For this study, we assume that social influences and consequences play an important role in the determination of device adoption. In reviewing Katz's (1957) Rovere and Decatur study, we find that the respondents claimed that their decisions were made based on the information that came from influence leaders. These opinion leaders are often individuals who are more likely to be exposed to the influences of mass media where they receive their source of information. The reception of such information empowers these opinion leaders to impart their knowledge to other members within their group.

The impact of the influence of opinion leaders is significant in the transmission of information as asserted by Katz and Lazarsfeld (1955) because exposure to the mass media by opinion leaders allows them to create opinions that are then disseminated to their followers. This is known as the trickle-down effect of information and opinion leadership. The idea of the role of opinion leaders and how information travels and spreads eventually led to the creation of Information Diffusion Theory (Rogers, 1995). This theory looks at the larger scope of opinion leaders, change agents, and gatekeepers whose influence allows innovations and ideas to be adopted by the masses. Based on Rogers' adopter model, opinion leaders learn of new innovations and information through the media. Opinion leadership is established when they seed such information to their followers hence completing the two step flow of the information (Katz & Lazarsfeld, 1955). In some cases, opinion leaders sometimes are among the first to utilize new information or innovation. The pioneers that embrace early technology or information are called early adopters. These early adopters also sometimes take on the role as change agents. Change agents are akin to opinion leaders as they will influence others to follow

suit and adopt the technology or information. The second group that adopts technology after a passage of time has been dubbed the early majority (Rogers, 1995). Those that adopt the innovation or information later will fall into the late adopters and laggards categories. Folorunso, Vincent, Adekoya (2010) discovered that most of these observations and criteria matched the adoption of social media and the formation of online communities such as Facebook, MySpace, and Youtube. In addition, they found that an important predictor is the attitude of the individual in wanting to adopt social media. The role of the early adopters in Rogers' model can also be accurately used to describe how information today that is diffused online such as social media fads, viral videos and even news articles (Guille, Hacid, Favre & Zighed, 2013).

Hiltz and Wellman (1997) suggest that online communities mimic real life communities in many ways. They suggest that "online communities provide emotional support and sociability as well as information and instrumental aid related to shared tasks." This is congruent with advertising in the 21st century that promotes the need for belonging in a group. Celebrity endorsements and product placement are living proof of such lifestyle advertising. However, those are not the only forms of social leadership as opinion leaders also exist within networks of small relationships. Katz (1957) has shown the importance of networks and opinion leaders in persuasion, and it is important to understand how this has transcended through the years with the technological changes. Not only has technology changed but also network structures have been amended as well, changing from face-to-face networks to online networks.

Networks and the Social Paradigm

One of the main goals in understanding information diffusion and influence is to understand how it works in a network. According to Granovetter (1983), often distant relationships such as acquaintances form what is called a weak tie and "weak ties provide people

with access to information and resources beyond those available in their own social circle.” Ties can be defined as the links between each of the different nodes in a network. People who spend more time together within a network are often understood to have stronger ties.

In an earlier study, Granovetter (1973) elaborates that the strength of a tie can be determined by four factors: time, emotional intensity, intimacy, and reciprocal services. He concludes that the cultivation of weak ties is important because information that is not usually available with one’s normal network of strong ties can be found amongst the weak ties. He cited examples of employment opportunities typically coming from acquaintances instead of close friends. In this application, we can see the role of opinion leaders in influencing decision making. According to Gilbert and Karahalios (2009), the dimensions of tie strengths have increased from four to seven with the introduction of new media. Using the social network platform Facebook, they discovered that intimacy of language followed by intensity of posts often shows the strength of ties between individuals in a network. Measuring the strengths of online ties can help us identify the weak ties in a network and the propensity of them being possible bridges to other networks.

In an age where there is a poverty of attention and a wealth of information, individuals often need to allocate their attention efficiently. Scarcity in attention often leads to weak ties receiving more attention due to the information it carries (Simon 1971). According to Levin and Cross (2004), “Strong ties often yield useful transfer knowledge because of trust through competence and benevolence but weak ties typically provide non-redundant information.” Therefore it concludes that trusted weak ties provide the most useful information. Therefore, even in a social network system such as Facebook, Twitter, and other forms of online media, it is

important to not underestimate the impact of social influence and how weak ties can affect the decision making process of individuals through social network.

While the mobile contingency theory (Thorson et al., 2015) creates a framework of the factors involved in news adoption of mobile devices, the social implications can be examined through early adoption and opinion leadership. The human factors involved within the decision making process, such as the opinions of friends, family, and social standing should provide information that can be examined to determine the impact of this variable. Thus it is important to consider networks and opinion leadership theories as these factors may yield additional insight to the decision making process which is often evaluated through a cost-benefit relationship.

Demographics

Demographics paint a story of the lifestyles of people in different walks of life. In an increasingly technologically driven culture, individuals embrace technology for both functional and social benefits. In the mobile contingency model (Thorson et al., 2015), one of the contingency variables is the amount of use that determines the strength of the habit as well as the cluster. Li (2013) looked at other factors such as innovativeness, personal initiative, news affinity, and news utility as predictors of mobile news use. Li's study showed that even though a person may be innovative and open to new technology, personal initiative plays a more significant role in predicting the use of mobile news use. Personal initiative can therefore be seen as an important variable that may tip the balance of the adoption of new technology.

Historically when we analyze news habits as a function of age, we have older users who typically use legacy media such newspapers, radio, and television, and on the other hand, we have younger users who have grown up watching television for news. To evaluate how the technological imperative is shaping culture, we need to evaluate how habits and demographics

may affect adoption strength based on the newness of media. Therefore by looking from the oldest to latest devices used in online news media, we want to understand how people are making the choices to get their news

Technological clusters allow individuals to transcend different mediums. For example if people at work surf the web and read articles for their jobs, they will then gain familiarity with the device as well as gain understanding about complementary devices within the technological cluster. The knowledge gained from using one device would transfer in a limited manner for the use of other devices. This study hypothesizes that this would help break down the barriers of entry for use of similar devices within the technological cluster, and would create greater need and opportunity to adopt other devices within the cluster. According to Chyi (2012), there is a greater likelihood for someone to adopt a new device within a same technological cluster than someone who does not already own one. However, Chyi also explains Everett Roger's (2010) adoption model that discusses the interrelation between media types suggesting a high correlation in use between different mediums of media. Therefore, the first hypothesis of this study is as follows:

H1: The more one spends time using a device, the more they are likely to use the other devices within the same technological cluster.

To examine the influence of demographics further, we believe the areas of age, income and location should be explored. First, age helps determine the strength of differing media habits. The credibility of online news media might also be a factor. Additionally, the propensity to adopt new devices may be another. Second, income may a predictor for adoption as there are inherent costs associated with these devices, especially the cost of brand new digital devices (such as the iPhone 6), which could be possible barriers of entry. Finally, location is also a likely predictor as

there will be technological infrastructures such as internet availability via Wi-Fi and 4G networks that would make adoption easier. According to Graham (2002), the digital information and communications technology (ICTs) have been developing at an exceedingly rapid rate in cities due to urbanization that is leading to a highly specialized ICT urban centers in certain geographic locations. Because of such highly specialized areas, there is a significant difference in the technological gap, which leads this study to hypothesize that:

H2: Those living in urban environments will be more likely to use newer digital devices than those in suburban or rural areas.

According to the 2014 Pew Mobile Technology Factsheet, there is a greater percentage of smart phone users in the 18 to 49 age group than compared to the 50 to 64 age group.

Additionally, as theorized by Rogers (2011), income is part of the technological imperative, therefore it is likely that a certain threshold of income is necessary in order to be part of an early adopter group. Because of the technological adaptability employed by the younger generation, this leads us to make the following hypothesis that younger people are more likely to be technologically inclined than older people. With phablets being the newest device within the technological cluster, we can examine if young individuals with high disposable income are indeed the primary early adopters. This leads us to believe that an interactive combination of income and age would have an impact in the phablet adoption rate. Table 1 shows the combination of both factors and the predicted outcomes that leads us to the following related inquiries pursued in this study:

H3: The relationships of Table 1 will exist: Young people with higher incomes will be more likely to use phablets for news than either young people with lower incomes or older people with lower incomes.

RQ1: What will the adoption of phablets for news will look like for older, higher income people?

Table 1A

Hypothesized outcomes of income and age on phablet adoption

	Lower Income	Higher Income
Younger	Low Phablet Adoption Rate	High Phablet Adoption Rate
Older	Low Phablet Adoption Rate	Unknown Phablet Adoption

Social media such as Facebook and Twitter are online social networks that are essentially virtual communities. Virtual copies are created copies of real life social networks because they are typically limited by geography (Hiltz & Wellman, 1997). By possessing the characteristics of social networks and real-life communities then in principle, several attributes should be observable from those within the network. Two-step communication from opinion leader to follower can be observed by reviewing where the leaders get their information as opposed to followers. Since opinion leaders would get their message from the news sites, followers would more likely to pick them up from secondary sites such as social media sites that have been “shared.” This sharing of news stories on social media would represent a virtualized two-step flow of communication process. This leads us to further hypothesize:

H4: The greater a person’s level of opinion leadership, the more likely the individual will share news through social networking.

H5: The greater a person’s propensity toward early adoption, the more likely the individual will share news through social networking.

To better understand the role of opinion leadership and early adopter status in the use of online news via various devices, this study involves a national survey of Americans. Since opinion leaders tend to have some level of expertise, it is likely they are among the first to adopt new technology. In addition, with the advent of opinion leadership on the web especially through social media, it is likely that age may play a part in determining who utilizes this medium. Finally, since opinion leaders are perceived to be experts in what they are recommending, there is a possible likelihood that they may spend more time on new technology than non-opinion leaders. This leads us to the final three hypotheses of this study:

H6: Early adopters are more likely to be opinion leaders.

H7: Young opinion leaders are more likely to share their news through social media than older opinion leaders.

H8: The greater a person's level of opinion leadership, the greater amount of time will be spent using newer digital devices.

Chapter 4: Method

The data for this study were collected via a national online survey of U.S. from June 5th, 2015, to June 12th, 2015, conducted by IPSOS. The research company employed a stratified quota sampling technique to recruit respondents. Initially, IPSOS acquires contact information for millions of Americans from commercial list brokers, who gather identifying information from drivers' license bureaus, telephone directories, and other centralized sources. Large subsets of these people are contacted and asked to indicate whether they are willing to participate in periodic surveys. Small incentives are offered, such as pre-paid phone cards, for participation.

Respondents were first asked a prequalifying question to ascertain if they own a smartphone. If they answered yes, then they will pass the pre-screening question and would be able to continue to answer the rest of the survey, if they answer no, then the survey will end for them. A sample size of 1,001 was predetermined to be the target size that would be utilized for this study. As surveys are completed, the system selects the best demographic matches that will be offered new surveys. This was done in order to simulate a match the proportion of the national demographics of the United States in terms of age, race, income, education, and gender. The sampled population as compared to the United States national average (United States Census, 2015) is as follows:

Table 1B

National vs. sample demographics of respondents taking survey

	<u>United States Average</u>	<u>Sample Average</u>
Age: 18 – 64	81%	84.7%
65 +	19%	15.3%
Gender:	50.8% Female	55.9% Female
Education: High school or higher	86%	96%
Bachelor or Higher	28.8%	45%

Even though Mobile News and Media Consumption is the title of the survey, it also covered other devices used to consume news including computers, tablets, and legacy media (See Appendix). The survey first inquired about the various types of device ownership and if the respondent answered that they own a smartphone, tablet and/or computer, the appropriate sections will open for each device type in the survey. Device type questions are a section long and covered the habits of users of the primary three digital devices. A fourth section tracks the participant’s news consumption patterns for legacy media. The final section had questions pertaining to opinion leadership, news affinity, credibility of the news, and early adoption. The primary sections that were used for secondary analysis for this study are as follows:

Section QA- smartphones. This section will focus on internet-enabled phones. Additionally, respondents can indicate if they are using phablets (iPhone 6, Samsung Galaxy) or traditional smartphones. Participants were asked, “On a typical day about how many minutes do you spend using your smartphone for talking, texting, browsing the internet, or any other use?”, “In the past seven days about how frequently would you say you have used your smartphone for talking, texting, browsing the internet, or any other use?”, “On a typical day about how many minutes do you spend using your smartphone to consume news stories provided by news

organizations like newspapers or TV news stations? (By news we mean information about local, national, and international happenings.)”, and “In the past seven days about how frequently would you say you have used your smartphone to consume online news stories provided by news organizations like newspapers and TV news stations? (By news we mean information about local, national, and international happenings.)”. Several other questions were asked that are not related to this study and the entire list can be found in the appendix.

Section QB - tablets. This section focused on tablets with 9” or larger colored displays. They include iPad, Nook, Amazon Kindle Fire. The primary questions asked were “On a typical day about how many minutes do you spend using your tablet for any use (like browsing the internet, watching videos, playing games),” “In the past seven days about how frequently would you say you have used your tablet for any use (like browsing the internet, watching videos, playing games)”, “On a typical day about how many minutes did you spend using your tablet to consume news stories provided by news organizations like newspapers or TV news stations? (By news we mean information about local, national, and international happenings.)”, and “In the past seven days about how frequently would you say you have used your tablet to consume online news stories provided by news organizations like newspapers and TV news stations? (By news we mean information about local, national, and international happenings.)”.

Section QC - personal computer. This section focused on personal computers that will include desktops and laptops. The primary questions asked were “On a typical day about how many minutes do you spend using your computer for any use (like browsing the internet, watching videos, playing games)”, “In the past seven days about how frequently would you say you have used your computer for any use (like browsing the internet, watching videos, playing games)”, “On a typical day about how many minutes did you spend using your computer to

consume news stories provided by news organizations like newspapers or TV news stations? (By news we mean information about local, national, and international happenings.)”, and “In the past seven days about how frequently would you say you have used your computer to consume online news stories provided by news organizations like newspapers and TV news stations? (By news we mean information about local, national, and international happenings.)”.

Section QD- legacy media. This section contained queried the respondents on the amount of legacy media used. The question “In the last seven days about how often did you used each of the following sources for any types of news and information?” was asked for each of the following media types: a) national newspapers (e.g., *USA Today*, *The New York Times*, or *The Wall Street Journal*), b) local newspaper in your town, c) network television news (e.g., NBC, CBS, ABC), d) local television news, e) news satire/comedy shows (*The Colbert Report*, *The Onion*), and f) CNN cable news and Fox cable news.

Section QE – demographics and opinion leadership. This section contains the measures for early adoption, opinion leadership and media attitudes. Race was coded as follows “White,” “Black or African American,” “American Indian or Alaska Native,” “Asian-Indian,” “Asian-Chinese,” “Asian-Korean,” “Asian-Filipino,” “Asian-Japanese,” “Asian-Vietnamese,” “Other Asian,” “Pacific Islander - Native Hawaiian,” “Pacific Islander - Guamanian or Chamorro,” “Pacific Islander – Samoan,” “Other Pacific Islander,” “Some other race,” and “Prefer not to answer.” For the purposes of this survey, Hispanics were not considered a race but a question was asked about their Hispanic origins. The possible responses were “No not of Hispanic, Latino or Spanish origin,” “Yes Mexican, Mexican American or Chicano,” “Yes, Puerto Rican,” “Yes, Cuban,” “Yes, Other Hispanic, Latino or Spanish origin,” and “Prefer not to answer.” The options for income were “Less than \$5,000,” “\$5,000 to \$9,999,” “\$10,000 to

\$14,999,” “15,000 to \$19,999,” “\$20,000 to \$24,999,” “\$25,000 to \$29,999,” “\$30,000 to \$34,999,” “\$35,000 to \$39,999,” “\$40,000 to \$44,999,” “\$45,000 to \$49,999,” “\$50,000 to \$54,999,” “\$55,000 to \$59,999,” “\$60,000 to \$64,999,” “\$65,000 to \$69,999,” “\$70,000 to \$74,999,” “\$75,000 to \$79,999,” “\$80,000 to \$89,999,” “\$90,000 to \$99,999,” “\$100,000 to \$124,999,” “\$125,000 to \$149,999,” “\$150,000 to \$199,999,” “\$200,000 to \$249,999,” “\$250,000 or more,” and “Prefer not to answer.” The options for education were “Grade 4 or less,” “Grade 5 to 8,” “Grade 9 to 11,” “Grade 12 (no diploma),” “Regular High School Diploma,” “GED or alternative credential,” “Some college credit but less than one year of college credit,” “1 or more year college credit no degree,” “Associates Degree,” “Bachelor’s Degree,” “Master’s Degree,” “Professional Degree,” and “Doctorate Degree.” Opinion leadership questions are elaborated in a later subsection.

Each main section consisted of questions pertaining to frequency of device use, attitudes and device functionality. Sections QA thru QC contain sections that ran parallel across each device type. There was a series of frequency of use questions to determine how often a device is used for different activities. A five-point scale where (1) Never to (5) Very Frequently is used in several question types to determine device use for several media habits. Additionally several seven-point scale items was used to code the amount of time a device is used for specific activities. They are coded as (1) Less than 5 minutes, (2) 5-20 minutes, (3) 21-40 minutes, (4) 41-60 minutes, (5) 61-90 minutes, (6) 91-120 minutes, and (7) more than two hours.

Respondents were asked questions about their demographics such as age, income, race, and gender. An additional question was asked to ascertain if the respondent lived in an urban, suburban, or rural location. The full 2015 RJI Mobile News and Media Consumption Survey can be found in the appendix.

Dependent and Independent Variables

Questions also evaluated attitudes towards news, news quality as well as the source of news and the importance of how news proliferates through their social networks. In addition, several questions were used to determine opinion leadership and two step flow communication. Individuals were asked questions pertaining to attitudes and ideas towards media as well as usage patterns. These responses were entered into a principal component analysis for factor reduction. A series of questions were used to identify the variables social media news sharing, opinion leadership, and early adoption.

Table 2

Factor analysis of Opinion Leadership, Early Adoption and New Digital Device Usage

Item	Factors		
	1	2	3
<u>Opinion Leadership</u>			
In general, do you talk to your friends and neighbors about the latest technology	.78		
I often introduce my friends to new technology	.84		
I am influential among my friends	.44		
I often provide lots of information to my friends and neighbors about new	.84		
People often ask me about new technology	.83		
<u>Early Adoption</u>			
I like trying new technology		.69	
I take the initiative to find out about new technology		.82	
I often talk to my friends and neighbors about new technology		.75	
I often the first among my friends to adopt new technology		.75	
<u>New Digital Device Usage</u>			
In the past seven days, about how frequently would you say you have used your smartphone for talking, texting, browsing the internet, or any other use			.44
In the past seven days, about how frequently would you say you have used your smartphone to consume online news stories provided by news organizations like newspapers and TV news stations			.65
In the past seven days, about how frequently would you say you have used your tablet for talking, texting, browsing the internet, or any other use		.	.52
In the past seven days, about how frequently would you say you have used your tablet to consume online news stories provided by news organizations like newspapers and TV news stations			.65
<u>Eigenvalue</u>			
Variance Explained (%)	3.72	3.00	2.26
	74.65%	75.10%	56.54%
Cronbach's alpha	.92	.89	.74

Opinion leadership. Opinion leadership is operationalized as how often they share stories as well as reviewing the source of their news (from the media or a secondary source). An index of opinion leadership variables was created by the average score of five variables with Varimax rotation and Kaiser normalization. The scale developed for opinion leadership was adapted from Rogers and Cartano (1962) and Childer's (1986) psychometric properties scales on

opinion leadership. The questions asked were “In general, do you talk to your friends and neighbors about the latest technology”, “I often introduce my friends to new technology”, “I am influential among my friends”, “I often provide lots of information to my friends and neighbors about new technology”, and “People often ask me about new technology”. These were reported over a 5-point scale of (1) Never, (2) Rarely, (3) Infrequently, (4) Frequently, and (5) Very Frequently. Cronbach’s α was .92.

Early adopter. Early adoption was measured through a four-question scale with Varimax rotation and Kaiser normalization. The index used were similar to the one developed by Dennis, Osborn and Semens (2005). The questions were “I like trying new technology”, “I take the initiative to find out about new technology”, “I often talk to my friends and neighbors about new technology”, and “I often the first among my friends to adopt new technology.” These were reported over a 5-point scale of (1) Never, (2) Rarely, (3) Infrequently, (4) Frequently, and (5) Very Frequently. Cronbach’s α was .89.

New digital device usage. An index of usage for smartphones and tablets was created by the average score of four variables with Varimax rotation and Kaiser normalization. The questions asked were, “In the past seven days, about how frequently would you say you have used your smartphone for talking, texting, browsing the internet, or any other use?”, “In the past seven days, about how frequently would you say you have used your smartphone to consume online news stories provided by news organizations like newspapers and TV news stations?”, “In the past seven days, about how frequently would you say you have used your tablet for talking, texting, browsing the internet, or any other use?”, and “In the past seven days, about how frequently would you say you have used your tablet to consume online news stories provided by news organizations like newspapers and TV news stations?”. These were reported over a 5-

point scale of (1) Never, (2) Rarely, (3) Infrequently, (4) Frequently, and (5) Very Frequently. Cronbach's α was .74.

Social media news sharing. An index of sharing news on social media was created by the average of three “Still thinking about the past 7 days, how often have you used your smartphone for sharing any news story on social media?”, “Still thinking about the past 7 days, how often have you used your tablet for sharing any news story on social media,” and “Still thinking about the past 7 days, how often have you used your computer for sharing any news story on social media?”. These were reported over a 5-point scale of (1) Never, (2) Rarely, (3) Infrequently, (4) Frequently, and (5) Very Frequently. Cronbach's α was .89.

Age demographics. Respondents were stratified into three age groups that are easily recognized and classifiable. The three main groups identified were Millennials, Gen X and Gen Y, and the Baby Boomers. According to Pew Research (2015), Millennials were born between 1981 and 1997 (ages 18 to 34), Gen X and Y between 1965 and 1980 (ages 35 to 50), and Baby Boomers are born in 1964 or earlier and are ages 51 and over (Fry, 2015). However Murphy (2011) used a different scale and believed that general gaps are difficult to measure, and the years attributed are numbers that best estimate the generational changes. Therefore for the purposes of this study and accounting for the different variations, this study chose to create the boundaries as follows: Those who were born from 1985 to 1997 (ages 18 to 30) are classified as Millennials. Those born within 1960 to 1984 (ages 31 to 55) are classified as Gen X and Gen Y while those born in 1959 (age 56 and older) and earlier are classified as Baby Boomers.

Chapter 5: Findings

Media Usage within Technological Clusters

H1 stated that the more a person uses a device within a technological cluster (television, newspaper and digital) the more likely they will use other devices in the same technological cluster. Results (Table 3) from the first level correlations showed that almost all correlations between usage for all media types were statistically significant. These correlations showed that usage for all device types and clusters are positively correlated and significant with the exception of smartphone and computer. Therefore H1 is not supported.

At first glance, these results could represent an oversimplification of the relationship as originally hypothesized in H1 and suggest that further investigation should be warranted. These initial findings dictate a necessity to dig deeper into these results to better understand why television (network and local) and newspaper (national and local) had significant correlations despite being in different technological clusters. To help clarify this pattern of results, several multiple regression analyses were conducted to investigate the role of demographics and ownership of the digital devices to determine underlying impact of demographics and device ownership that may play a part in media usage across technological clusters. Those regressions follow.

Prediction of Use of Local Newspapers

A multiple regression was conducted to predict each individual's use of local newspapers as a function of demographics (first block), device ownership (second block), and opinion leadership (third block). The regression equation was significant ($F(11,989)=13.21, p<.001$) with an R^2 of .13. Only age, smartphone ownership, phablet ownership and level of opinion leadership ($ps<.05$) were significant positive predictors of local newspaper use (Table 4A). Older

individuals who own both smartphone and phablets and have higher opinion leadership were more likely to read local newspapers.

Prediction of Use of National Newspapers

The same design of hierarchical regression was employed. The regression equation was significant ($F(11,989)=23.69, p<.001$) with an R^2 of .21. We find that location, smartphone ownership, phablet ownership and level of opinion leadership ($ps<.05$) were significant predictors of national newspaper use (Table 4B). Those living in urban or suburban locations that own a smartphone, and a phablet and had higher opinion leadership were more likely to read national newspapers.

Prediction of use of Local Television News

The same design of hierarchical regression was employed. The regression equation was significant ($F(11,989)=23.69, p<.001$) with an R^2 of .21. We find that an urban location, age, education, and level of opinion leadership ($ps<.05$) were significant predictors of local television news use (Table 4C). Those living in locations that are older with lower education, and with higher opinion leadership were more likely to watch local television news.

Prediction of use of Network Television

The same design of hierarchical regression was employed. The regression equation was significant ($F(11,989)=10.72, p<.001$) with an R^2 of .11. We find that an age, income, education, phablet ownership and level of opinion leadership ($ps<.05$) were significant predictors of network television news use (Table 4D). Those who were older, with higher income, lower education, owned a phablet and with higher opinion leadership were more likely to watch network television news.

H2 suggested that individuals living in an urban environment will be more likely to use

newer digital devices compared to those in suburban or rural areas. A one-way ANOVA was calculated comparing new digital device usage with location (Table 5A). Results indicated that a significant main effect for location was found ($F(2,998)= 16.787, p<.001$). A Tukey HSD Post-Hoc (Table 5B) analysis was conducted and showed that there was a significant difference between urban ($m=3.12, sd=1.11$) and rural ($m=2.64, sd=1.02$) and suburban ($m=2.91, sd=1.01$) and rural. There was no statistical significance between those living in urban and suburban areas. Those living in urban areas used newer digital devices more compared to those living in rural areas, likewise those living in suburban areas also used more newer digital devices compared to those living in rural areas. H2 is partially supported by the results.

H3 sought to explore the relationship between income and age with phablet adoption. Higher income younger people would be more likely to adopt phablets for news compared to older people. A three way chi-square of independence (Table 6) was calculated examining the relationship between phablet ownership with three age levels (Millennials, Gen X and Y, and Baby Boomers) and four levels of income (\$0 to \$24,999, \$25,000 to 54,999, \$55,000 to \$124,999, and \$125,000 and above). The results showed that it was statistically significant $\chi^2(3)= 9.91, p<.05$. There was not a significant relationship between income for phablet ownership for the Millennial group, though the Baby Boomer group was approaching statistical significance $\chi^2(3)= 6.91, p=.075$. However, for the Gen X and Y group, it was significant. $\chi^2(3)= 11.83, p<.01$. The Gen X and Y group are more likely to purchase phablets once their income exceeds \$25,000. It should be noted that the numbers in the cells of the chi square for the Millennial group were low enough they do not provide a fair test of the hypothesis. H3 was partially supported.

H4 asked whether there was a relationship between the degree of opinion leadership and

sharing. This research question attempts to examine how much sharing is done at various levels of opinion leadership. A multiple linear regression was calculated demographics (first block), device ownership (second block), and opinion leadership (third block). The regression equation was significant ($F(11,989)=51.91, p<.001$) with an R^2 of .37. Only gender, urban location, age, smartphone ownership, phablet ownership and level of opinion leadership ($ps<.05$) were significant positive predictors of social media news sharing (Table 7A). Younger females from urban locations with smartphone and phablet and a higher level of opinion leadership would be more likely to share news on social media. H4 is supported.

H5 asked whether there was a relationship between the degree of early adoption and sharing. This research question attempts to examine how much sharing is done at various levels of adoption. A multiple linear regression was calculated controlling for demographics (first block), device ownership (second block), and opinion leadership and early adoption (third block). The regression equation was significant ($F(12,988)=52.35, p<.001$) with an R^2 of .39. Only gender, age, income, smartphone ownership, phablet ownership, level of opinion leadership and early adoption level ($ps<.05$) were significant positive predictors of social media news sharing (Table 7B). Younger, females with smartphone and phablet, with a higher level of opinion leadership and early adoption would be more likely to share news on social media. H5 is supported.

H6 suggested that early adopters are more likely to be opinion leaders. This hypothesis investigated the relationship between early adopters and the likelihood of them being opinion leaders. Table 4 shows the first order correlation, that reveals a significant positive strong correlation ($r=.86, p<.01$) between both variables. Participants who have higher early adoption rates tend to be opinion leaders. H6 is supported by these results.

H7 suggested that young opinion leaders are more likely to share their news through social media than older opinion leaders. This hypothesis seeks to predict the how young opinion leaders will share more on social media as opposed to older opinion leaders. A multiple regression was conducted to predict each individual's sharing as a function of demographics (first block), device ownership (second block), and opinion leadership (third block). The regression equation was significant ($F(12,988)=49.95, p<.001$) with an R^2 of .37 (Table 8A). While opinion leadership and the interaction term are both significant predictors, age is not. The scatterplot (Figure 2) of the interaction effects shows that while the Millennial group, and the Gen X and Y group have largely parallel lines. There was an interaction between the Gen X and Y group, and the Baby Boomer group. This means that while the rate of change between age, and opinion leadership are rather similar for the Millennial group, and the Gen X and Y group. However, between the Gen X and Y group, and the Baby Boomer group, we find that while the Baby Boomer group may share more than the Gen X and Y group at lower levels of opinion leadership, however sharing for the Gen X and Y group increases at a much greater rate at higher opinion leadership levels.

H8 suggested that the greater the opinion leadership a person exhibits, the greater amount of time will be spent using newer digital devices. The hypothesis investigates the relationship between opinion leadership and time spent with newer digital devices. The first order correlation, reveals a significant positive moderate correlation ($r=.47, p<.01$) between both variables. Participants with higher opinion leadership scores were more likely to spend time with new technology. A hierarchical regression was also employed. The regression equation was significant ($F(11,989)=45.68, p<.001$) with an R^2 of .33. We find that age, location, smartphone ownership, phablet ownership, and level of opinion leadership ($ps<.05$) were significant

predictors of digital device news use (Table 8B). Those who were in urban or suburban locations, younger, who owned a smartphone or a phablet and with higher opinion leadership were more likely to have greater use with digital devices for news. H8 is supported by these results.

Table 3

Correlations between news media use by device

	1	2	3	4	5	6
Smartphone	—					
Tablet	.276**	—				
Computer	.170**	.042	—			
National	.131**	.191**	.111**	—		
Local	.030	.142**	.081*	.484**	—	
Network TV	.105**	.216**	.075*	.394**	.428**	—
Local TV	.091**	.142**	.114**	.333**	.497**	.748**

Table 4A

Prediction of local newspaper use with demographics, digital device ownership, and opinion leadership

	Model 1	Model 2	Model 3
	St. beta	St. beta	St. beta
Block 1: Demographics			
Male	.06*	.05	.01
Urban	.09*	.07	.06
Suburban	.02	.01	.01
Age	.14**	.17***	.26***
Household Income	.04	.03	.02
Education	.03	.02	.01
Block 2: Ownership			
Smartphone Ownership	---	.27***	.21**
Tablet Ownership	---	.04	.00
Computer Ownership	---	-.04	-.03
Phablet Ownership	---	.33***	.23**
Block 3: Opinion Leadership			
Opinion Leadership	---	---	.29***
<i>Incremental change in R² (%)</i>	---	.02	.07
<i>R²(%)</i>	.04***	.06***	.13***
<i>Total Adjusted R² (%)</i>	.03***	.05***	.12***
<i>N = 1001</i>			

$p \leq .1$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Table 4B

Prediction of national newspaper use with demographics, digital device ownership, and opinion leadership

	Model 1	Model 2	Model 3
	St. beta	St. beta	St. beta
Block 1: Demographics			
Male	.10**	.09**	.03
Urban	.14**	.12**	.11*
Suburban	.10*	.08*	.09*
Age	-.17***	-.13***	-.02
Household Income	.09**	.07*	.05
Education	.62	.04	.03
Block 2: Ownership			
Smartphone Ownership	---	.36***	.29***
Tablet Ownership	---	.10**	.05
Computer Ownership	---	-.02	-.01
Phablet Ownership	---	.45***	.34***
Block 3: Opinion Leadership			
Opinion Leadership	---	---	.34***
<i>Incremental change in R² (%)</i>	---	.05	.10
<i>R²(%)</i>	.06***	.11***	.21***
<i>Total Adjusted R² (%)</i>	.06***	.11***	.20***
<i>N = 1001</i>			

$p \leq .1$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Table 4C

Prediction of local television news use with demographics, digital device ownership, and opinion leadership

	Model 1	Model 2	Model 3
	St. beta	St. beta	St. beta
Block 1: Demographics			
Male	.01	.01	-.04
Urban	.15**	.15**	.13*
Suburban	.06	.05	.05
Age	.20***	.22***	.31***
Household Income	.04	.03	.02
Education	-.05	-.06	-.07*
Block 2: Ownership			
Smartphone Ownership	---	.18*	.12
Tablet Ownership	---	.04	-.003
Computer Ownership	---	-.02	-.006
Phablet Ownership	---	.24**	.142
Block 3: Opinion Leadership			
Opinion Leadership	---	---	.293***
<i>Incremental change in R² (%)</i>	---	.01	.07
<i>R²(%)</i>	.05***	.06***	.13***
<i>Total Adjusted R² (%)</i>	.04***	.05***	.12***
<i>N = 1001</i>			

$p \leq .1$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Table 4D

Prediction of national television news use with demographics, digital device ownership, and opinion leadership

	Model 1	Model 2	Model 3
	St. beta	St. beta	St. beta
Block 1: Demographics			
Male	.01	.001	-.04
Urban	.10*	.09*	.08
Suburban	.02	.01	.01
Age	.13***	.15***	.23***
Household Income	.10*	.09*	.07*
Education	-.06	-.07*	-.09*
Block 2: Ownership			
Smartphone Ownership	---	.19*	.14
Tablet Ownership	---	.02	-.02
Computer Ownership	---	.02	.03
Phablet Ownership	---	.27***	.18*
Block 3: Opinion Leadership			
Opinion Leadership	---	---	.27***
<i>Incremental change in R² (%)</i>	---	.02	.06
<i>R²(%)</i>	.03***	.05***	.11***
<i>Total Adjusted R² (%)</i>	.02***	.04***	.10***
<i>N = 1001</i>			

$p \leq .1$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Table 5A

One way ANOVA measuring new digital device usage with location

ANOVA					
New Digital Device Usage					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.787	2	8.394	9.839	.000
Within Groups	851.363	998	.853		
Total	868.150	1000			

Table 5B

Tukey HSD Comparison for location

(I)	(J)	Mean Diff	Std.Error	Sig	95% Confidence Interval	
					Lower Bound	Upper Bound
		(I-J)				
Urban	Suburban	.09	.07	.32	-.06	.25
	Rural	.37	.08	.000	.17	.57
Suburban	Urban	-.09	.07	.324	-.25	.06
	Rural	.27	.08	.002	.09	.46
Rural	Urban	-.37	.08	.000	-.57	-.17
	Suburban	-.27	.08	.002	-.46	-.09

Table 6

Threeway Chi Square of Independence comparing age group, income, and phablet ownership

Age Group			Own Phablet		Total
			No	Yes	
18 - 30 (Millennial)	Condensed	\$0 to \$24,999	36 (58.1%)	26 (41.9%)	62
	Income Brackets	\$25,000 to \$54,999	48 (48.5%)	51 (51.5%)	99
		\$55,000 to \$124,999	34 (59.6%)	23 (40.4%)	57
		\$125,000 and higher	10 (52.6%)	9 (47.4%)	19
		Total	128 (54.0%)	109 (46.0%)	237
31 - 55 (Gen Y-X)	Condensed	\$0 to \$24,999	49 (71.0%)	20 (29.0%)	69
	Income Brackets	\$25,000 to \$54,999	64 (56.6%)	49 (43.4%)	113
		\$55,000 to \$124,999	81 (47.1%)	91 (52.9%)	172
		\$125,000 and higher	24 (58.5%)	17 (41.5%)	41
		Total	218 (55.2%)	177 (44.8%)	395
56+ (Babyboomers)	Condensed	\$0 to \$24,999	35 (81.4%)	8 (18.6%)	43
	Income Brackets	\$25,000 to \$54,999	74 (66.7%)	37 (33.3%)	111
		\$55,000 to \$124,999	110 (61.5%)	69 (38.5%)	179
		\$125,000 and higher	21 (58.3%)	15 (41.7%)	36
		Total	240 (65.0%)	129 (35.0%)	369
Total	Condensed	\$0 to \$24,999	120 (69.0%)	54 (31.0%)	174
	Income Brackets	\$25,000 to \$54,999	186 (57.6%)	137 (42.4%)	323
		\$55,000 to \$124,999	225 (55.1%)	183 (44.9%)	408
		\$125,000 and higher	55 (57.3%)	41 (42.7%)	96
		Total	586 (58.5%)	415 (41.5%)	1001

Note. $\chi^2 = 9.91$, $df = 3$, $p < .05$ Numbers in parentheses indicate row percentages.

Table 7A

Prediction of online news sharing based on demographics, digital device ownership, and opinion leadership

	Model 1	Model 2	Model 3
	St. beta	St. beta	St. beta
Block 1: Demographics			
Male	.01	-.01	-.07**
Urban	.11**	.10*	.08*
Suburban	.08	.07	.07
Age	-.41***	-.36***	-.24***
Household Income	-.02	-.03	-.05
Education	-.01	-.03	-.05
Block 2: Ownership			
Smartphone Ownership	---	.28***	.21**
Tablet Ownership	---	.04	-.01
Computer Ownership	---	-.02	-.01
Phablet Ownership	---	.44***	.305***
Block 3: Opinion Leadership			
Opinion Leadership	---	---	.401***
<i>Incremental change in R² (%)</i>	---	.05	.13
<i>R²(%)</i>	.19***	.24***	.37***
<i>Total Adjusted R² (%)</i>	.18***	.23***	.36***
<i>N = 1001</i>			

$p \leq .1$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Table 7B

Prediction of online news sharing based on demographics, digital device ownership, and social influences

	Model 1	Model 2	Model 3
	St. beta	St. beta	St. beta
Block 1: Demographics			
Male	.01	-.01	-.07**
Urban	.11**	.10*	.05
Suburban	.07	.07	.06
Age	-.41***	-.36***	-.23***
Household Income	-.02	-.03	-.06*
Education	-.01	-.03	-.04
Block 2: Ownership			
Smartphone Ownership	---	.28***	.18**
Tablet Ownership	---	.03	-.03
Computer Ownership	---	-.02	-.01
Phablet Ownership	---	.44***	.27***
Block 3: Social Influences			
Opinion Leadership	---	---	.16**
Early Adoption	---	---	.30***
<i>Incremental change in R² (%)</i>	---	.05	.15
<i>R²(%)</i>	.19***	.24***	.39***
<i>Total Adjusted R² (%)</i>	.18***	.23***	.38***
<i>N = 1001</i>			

$p \leq .1$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Table 8A

Prediction of social media news sharing based on age, and opinion leadership, controlling for demographics and digital device ownership

	Model 1	Model 2	Model 3
	St. beta	St. beta	St. beta
Block 1: Demographics			
Male	.01	-.01	-.08**
Urban	.11**	.10*	.07*
Suburban	.08	.07	.06
Age	-.41***	-.36***	-.04
Household Income	-.02	-.03	-.05
Education	-.01	-.03	-.04
Block 2: Ownership			
Smartphone Ownership	---	.28***	.19**
Tablet Ownership	---	.04	-.01
Computer Ownership	---	-.02	-.01
Phablet Ownership	---	.44***	.28***
Block 3: Opinion Leadership			
Opinion Leadership	---	---	.71***
Opinion Leadership x Age	---	---	-.37***
<i>Incremental change in R² (%)</i>	---	.05	.14
<i>R²(%)</i>	.19***	.24***	.38***
<i>Total Adjusted R² (%)</i>	.18***	.23***	.37***
<i>N = 1001</i>			

$p \leq .1$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

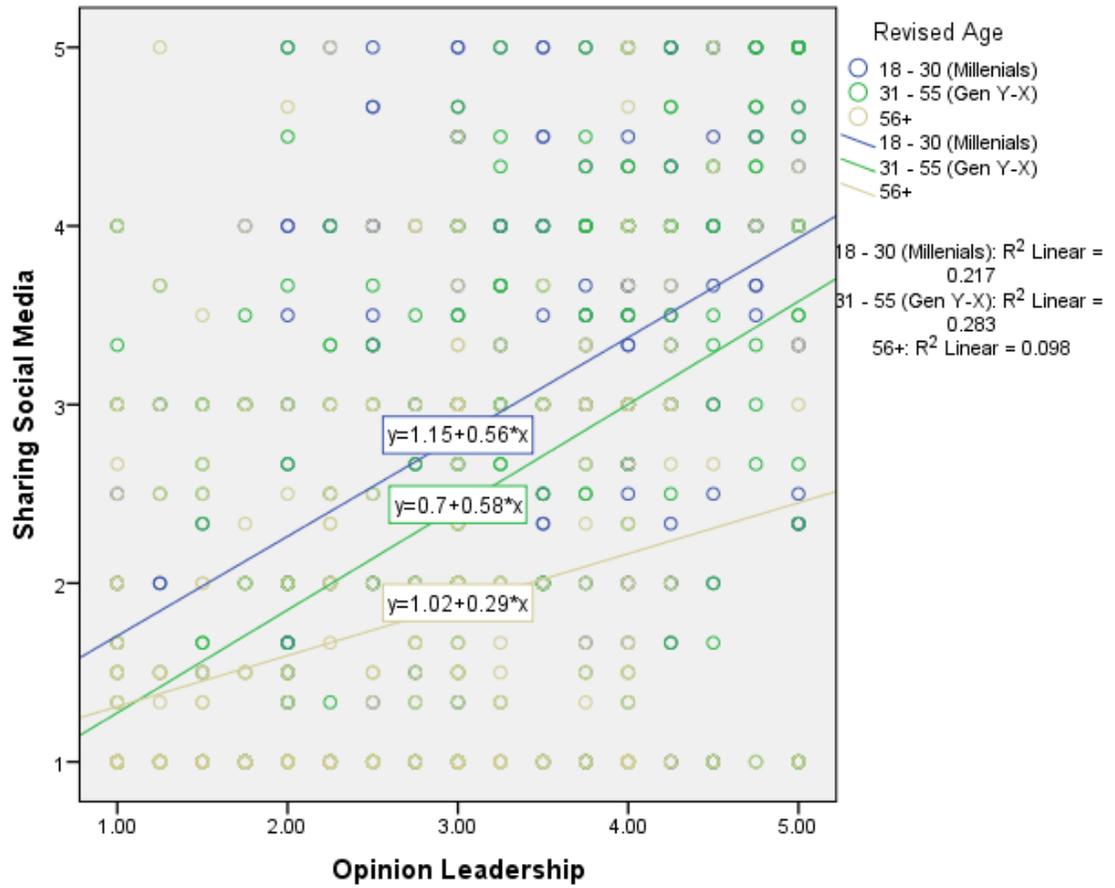


Figure 2. Scatterplot of opinion leadership by social media sharing by age groups

Table 8B

Prediction of digital device use with demographics digital device ownership, and opinion leadership

	Model 1	Model 2	Model 3
	St. beta	St. beta	St. beta
Block 1: Demographics			
Male	.03	.01	-.04
Urban	.12**	.11**	.09*
Suburban	.09*	.08*	.08*
Age	-.40***	-.35***	-.25***
Household Income	.05	.03	.01
Education	-.02	-.03	-.05
Block 2: Ownership			
Smartphone Ownership	---	.31***	.25***
Tablet Ownership	---	.03	-.01
Computer Ownership	---	-.05	-.04
Phablet Ownership	---	.49***	.38***
Block 3: Opinion Leadership			
Opinion Leadership	---	---	.34***
<i>Incremental change in R² (%)</i>	---	.06	.10
<i>R² (%)</i>	.18***	.24***	.34***
<i>Total Adjusted R² (%)</i>	.17***	.24***	.33***
<i>N = 1001</i>			

$p \leq .1$. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Chapter 6: Discussion

The results from H1 demonstrates that while technological cluster may indeed play a role in determining news use within each cluster, a more resounding observation may be that the strength of habits may indeed play a much larger role in determining news usage. The results from this study reinforce the concept of media complementarity proposed by Dutta-Bergman (2004) that suggested that interests may indeed transcend from online and non-online media usage. With having a smartphone and a phablet being significant positive predictors for local newspaper, national newspaper, local television, and network television, we see a trend that the adoption of newer digital devices may indeed be for the purpose to reinforce existing media consumption habits. As proposed by the mobile contingency theory (Thorson et al., 2015), the importance of functions and tasks would come into the forefront of the decision making process for device adoption for news use. This evidence suggests that the strength of the habit and in this case the importance of news (news affinity) to an individual would seem like a more important predictor to not only news adoption but also device adoption as well. This would indicate the strength of news affinity over digital ownership.

Demographics were expected to account for several factors for digital device adoption and use. With H2 being partially supported, we are able to establish that location is an important factor in the use of newer digital devices between urban or suburban and rural areas. The likelihood of location as a predictor may inform us that greater population density in urban and suburban areas compared to rural create an environment of greater interaction and revolving around information flow. Additionally, it shows that the technological gap between urban and rural areas is still existent and definitely makes an impact on habits. Since we know that network infrastructures for new technologies are often more available at an affordable price in more urban

and suburban environments. This might be key in understanding why location continues to be a determining factor in the prediction.

However, the inability to predict phablet adoption by age (via three generation groups) and income is rather surprising since demographics are often a marker used by advertisers to highlight the way to reach their target audience to sell their product. The lack of demographical support to show how phablet adoption is could be due to the fact that the survey did not have a larger sample of Millennials to better test the hypothesis. The partial support for the Gen X and Y group seem to suggest that a baseline of \$25,000 income may be a starting point whereby people would be willing to spend their money on new technology. This would reinforce the diffusion of innovation (Rogers, 2010) idea of how cost would be a limiting factor for those further down the line of the adoption scale. Further research could investigate if \$25,000 is a fixed starting point for technological gadgets and if factors such as cost of device may significantly affect this finding. Additionally, we discovered from this study that demographics alone are not sufficient for advertisers to predict purchase choices in this category. This could mean that there are greater underlying factors that are more salient than demographics that may predict phablet and online news adoption. An example of such may be interest or membership or group affiliations. A further study into the composition of the social networks may be useful to better understand adoption habits.

Demographics however were useful predictors when we observed the effects of news sharing through opinion leaders and early adopters. Comparing the news sharing predictors for opinion leadership and early adoption, we find a huge similarity that greater sharing persists when stronger opinion leaders and early adopters were younger females with lower household income. The archetype of young females with lower income may suggest how technologically

savvy women with possibly more free time on their hands (perhaps because they are not working) are more likely to be the sharers of news via social media. This is a surprising observation as society has generally valued experience and age. Additionally, gender has often been a question in critical studies especially with regard to the question of male authority. It is therefore interesting to the demographic of youthful women being opinion leaders. However, the propensity to share does not indicate the effectiveness of the sharing and how they are received by others. Overall, demographics remain key indicators to understand the habits of users and adopters.

Opinion leadership seems to play a central role in how it interacts with the other variables in this study. Despite controlling for demographics and device ownership, it has established itself as a predictor for many of the measures in this study. Strength of opinion leadership from this study has shown a positive correlation with time spend with new digital devices. Since we know that those in urban locations tend to spend time with newer digital devices, it would make good reason to suggest that most opinion leaders also tend to be from urban locations. The strong positive correlation between early adoption and opinion leadership may further suggest the duality of roles of opinion leaders and early adopters. The inherent overlap between the functions of an opinion leader and early adopter shows the intricacy of value being shown in an experienced user. The convergent validity on both opinion leadership and early adoption is shown especially in the way sharing is triggered as a result of both qualities. This may provide an extension or even an evolution of the original two step flow communication (Katz, 1957) where opinion leaders get their information from the media and help swap the masses. Today, individuals are regarded as opinion leaders not only need to have knowledge and influence but also have the experience to back it up by being early adopters.

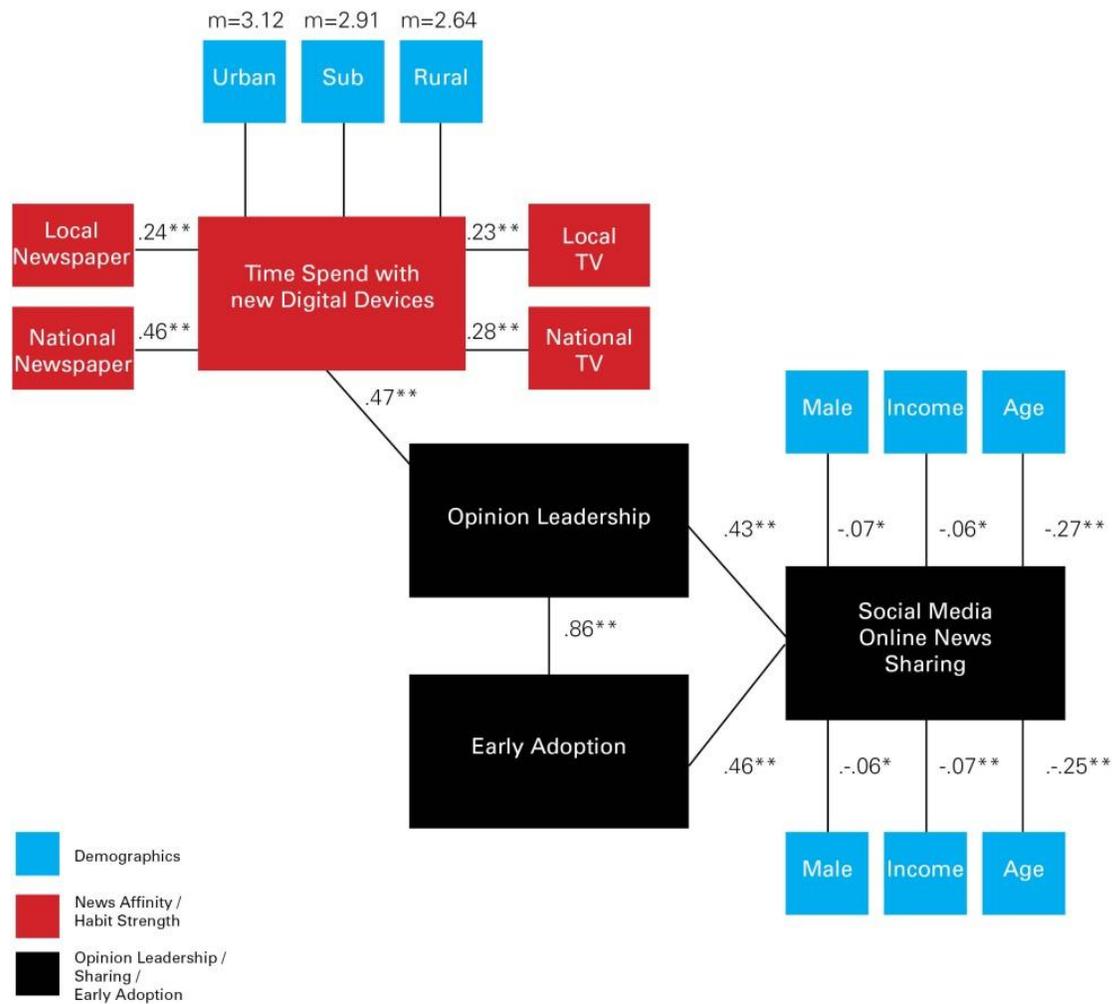


Figure 3. The relationship of variables found in this study

Figure 3 models the variable relationships as examined by the hypothesis covered in this study. As shown, we see the importance of demographics in most parts of the model and how they act as important predictors to the key areas that are investigated in this study. In addition to the power of demographics, we find a strong convergent relationship between opinion leadership and early adoption. Both converge strongly and identically on the factor of social media online news sharing even though conceptually and operationally they were different. This relationship

can be investigated deeper in further studies to examine if they are both unique characteristics or are in fact have converged into a singular role. So what does an opinion leader look like? The results from this study have revealed certain insights of the characteristics of opinion leaders such as heavy usage and early adoption. In addition, part of the attribute of being an opinion leader is also to be a sharer of news on social media. Being at the forefront of the digital divide, we know that the strength of opinion leadership correlates with the amount of time spend with newer digital devices. This may explain why hardcore, experienced, user junkie types are often atypical of the opinion leader persona sort. The original mobile contingency model proposes the importance for news affinity, professional news and credibility as the three basic contingent factors for mobile news adoption. This study has evaluated news affinity and examined the congruency with opinion leadership discovered that there is a positive relationship. Heavy usage would support why opinion leaders would make such strong candidates to use mobile for news. Additionally, since these opinion leaders also tend to be early adopters, they would be more experience than others around them having started early and would earn credibility to those they influence since they would be a seasoned users. Professional news and credibility was not measured in this study so congruency cannot be ascertained.

The propensity for news sharing on social media because of opinion leadership and early adoption would also add an additional vein in the model proposed. While online news sharing was originally hypothesized to be a social characteristic, it is seen as an outcome variable in predicting the characteristics of opinion leadership. The importance of sharing should not be underestimated as that has been great media interest about the impact of sharing and the qualities of top sharers. While multiple debates rage over the effectiveness of influential sharing and if it is based on the power law model or Gaussian distribution, this study has revealed some insight of

a news sharer. Further research can be done to test sharing effectiveness based on degree of opinion leadership and early adoption.

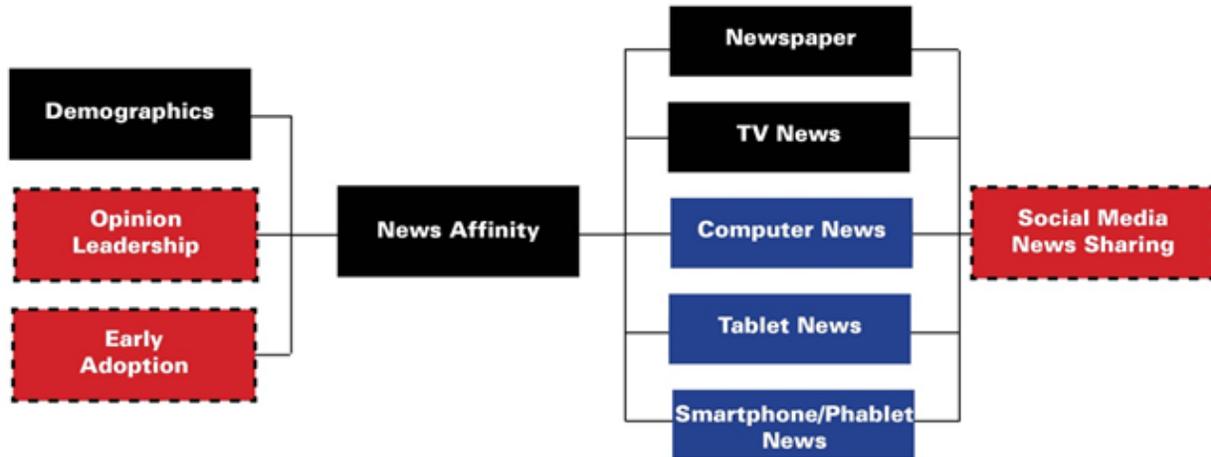


Figure 4. Mobile Contingency Model accounting for social characteristics

The original proposition of this study is to understand the impact of social factors that may govern news adoption for the new digital devices. Our study has shown that the two large doorways that govern such adoption habits are demographics and habit strength (news affinity). However, this study has uncovered the impact of social characteristics that ultimately lead to different forms of news sharing. The relationship as proposed in Figure 4, explains the motivations behind news sharing. The impact of social media news sharing and the motivations behind this may indeed be of interest to advertising professionals and scholars. Since we live in a world driven by “virality” and “trends” on social media, the impetus of the characteristics of these sharers may be key in understanding the constructs of certain web phenomenon such as the viral 2014 ALS Ice Bucket Challenge amongst others. This may show how social media sharing motivations are driven by social characteristics and not just demographics alone. However, this model proposes that social media news sharing is an outcome of demographics, opinion

leadership, early adoption, and media use. It is possible that social media news sharing could instead be a determinant of news usage across various device types or even opinion leadership and early adoption. Further research could be undertaken to explore such relationships.

A limitation of this study is the manner in which news is defined. Since this is a secondary analysis of data, news is contextualized based on the participant's personal interpretation of news based on the medium as laid out in the survey. It would have been ideal if the definition of news was predefined for all participants in the study. Other limitations of the study include an uneven sample size with a smaller population of the Millennial group, which created a possible lack of statistical power in the evaluation of H3. However, this is to be expected as the study was to capture a representative sample of the United States. Further, research could be done to examine the impact of social media news sharing in addition to adoption choices. An area that may be of interest is the influence of social networks on adoption in addition to demographics. Overall, the contribution of this study to academia is the impact of social reasons such as opinion leadership and early adoption in understanding how they would influence digital news sharing on social media.

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APPENDIX

2015 RJI Mobile Media News Consumption Survey

QA1

Please indicate which of the following devices you own:

- Cell phone without internet access
- Cell phone with internet access (a smart phone)
- Cell phone with one of the larger (5 inches or larger screens like the iPhone6 Plus or the Samsung Galaxy Note)
- Tablet (e.g., Apple iPad or Amazon Kindle Fire)
- Computer or laptop
- None of the above

If they own a smartphone with larger screen AND a tablet, go to QA2

If they own a smartphone but do not own a tablet, go to QA3

If they do not own a cell phone or own a cell phone without internet access, go to QB

QA2

Since acquiring your large phone do you:

- Use your tablet about the same as before
- Use your tablet more than before
- Use your tablet less than before

QA3

On a typical day about how many minutes do you spend using your cellphone for talking, texting, browsing the internet, or any other use?

- Less than 5 minutes
- 5-20 minutes
- 21 to 40 minutes
- 41 to 60 minutes
- 61-90 minutes
- 91-120 minutes
- More than two hours

QA4

In the past seven days about how frequently would you say you have used your cellphone for talking, texting, browsing the internet, or any other use?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QA5

On a typical day about how many minutes did you spend using your cellphone to consume news stories provided by news organizations like newspapers or TV news channels? (By news we mean information about local, national, and international happenings.)

- Less than 5 minutes
- 5-20 minutes
- 21 to 40 minutes
- 41 to 60 minutes
- 61-90 minutes
- 91-120 minutes
- More than two hours

QA6

In the past seven days about how frequently would you say you have used your cell phone? to consume news stories provided by news organizations?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

Thinking about the total time you use your smartphone for news, how often do you

QA7

Get it directly from news organization websites that you reach with your browser

- 0 Never
- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA8

Get it directly from news organization smartphone apps.

- 0 Never
- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA9

Get it indirectly through links provided by friends or other users on social media networks, such as Facebook and Twitter.

- 0 Never

- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA10

Get it indirectly through links included in e-mail messages.

- 0 Never
- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA11

Stumble onto news stories of interest to you while using your smartphone.

- 0 Never
- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA12

About how often in the past seven days, have you intentionally interacted with any advertisements embedded in news stories or videos on your smartphone?

- 0 Never
- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA13

About how many of the ads that were embedded in news stories or videos have you intentionally interacted with on your smartphone in the past seven days.

Number _____

QA14

About how often in the past seven days have you used your smartphone to interact with any social media networks, such as Facebook, Twitter, LinkedIn, or Pinterest,

- 0 Never
- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA15

About how often in the past seven days, have you shared any news stories using social media on your smartphone?

- 0 Never
- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA16

About how often in the past seven days have you used your smartphone for entertainment like watching videos or playing games?

- 0 Never
- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA17

About how often in the last seven days have you used your smartphone for shopping online?

- 0 Never
- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA18

About how often in the last seven days have you browsed or searched the Web on your smartphone?

- 0 Never
- 1 Rarely
- 2 Infrequently
- 3 Frequently
- 4 Very Frequently

QA19

The size of the screen on my smartphone makes news easy to read

- _0 Strongly Disagree
- _1 Disagree
- _2 Neither Agree or Disagree
- _3 Agree
- _4 Strongly Agree

QA20

Browsing the news on my smartphone helps me find the news I want to read quickly

- _0 Strongly Disagree

- _1 Disagree
- _2 Neither Agree or Disagree
- _3 Agree
- _4 Strongly Agree

QA21

The news I get on my smartphone is easy to understand

- _0 Strongly Disagree
- _1 Disagree
- _2 Neither Agree or Disagree
- _3 Agree
- _4 Strongly Agree

QA22

I use my smartphone to read the news because it is cheap

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QA23

I use my smartphone to read the news because I always have my phone with me

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QA24

I use my smartphone to read the news because of how quickly I can read about breaking news

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

Question QB

**PEOPLE WHO ANSWERED ABOVE THAT THEY DID NOT HAVE A TABLET
WOULD SKIP THE QUESTIONS BELOW AND GO TO QUESTION QC**

You've said you own a tablet.

QB1

On a typical day about how many minutes do you spend using your tablet?

Less than 5 minutes

5-20 minutes

21 to 40 minutes

41 to 60 minutes

61-90 minutes

91-120 minutes

More than two hours

QB2

In the past seven days about how frequently would you say you have used your tablet for any purpose?

_0 Never

_1 Rarely

_2 Infrequently

_3 Frequently

_4 Very Frequently

QB3

On a typical day about how many minutes did you spend using your tablet to consume news stories provided by news organizations like newspapers or TV news channels? (By news we mean information about local, national, and international happenings.)

Less than 5 minutes

5-20 minutes

21 to 40 minutes

41 to 60 minutes

61-90 minutes

91-120 minutes

More than two hours

QB4

In the past seven days about how frequently would you say you have used your tablet to consume news stories provided by news organizations?

_0 Never

_1 Rarely

_2 Infrequently

_3 Frequently

_4 Very Frequently

Thinking about the total time you use your tablet for news, how often do you

QB5

Get it directly from news organization websites that you reach through your browser

0 Never

1 Rarely

2 Infrequently

- 3 Frequently
- 4 Very Frequently

QB6

Get it directly from news organization tablet apps.

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QB7

Get it indirectly through links provided by friends or other users on social media networks, such as Facebook and Twitter.

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QB8

Get it indirectly through links included in e-mail messages.

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QB9

Stumble onto news stories of interest to you while using your tablet?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QB10

About how often have you used your tablet to interact with any social media networks, such as Facebook, Twitter, LinkedIn, or Pinterest, in the past seven days?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QB11

About how often on a typical day, spend interacting with social media networks on your tablet?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QB12

About how often in the past seven days, have you shared any news stories using social media on your tablet?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QB13

About how often on a typical day, do you spend using your tablet for entertainment?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QB14

About how often on a typical day, do you spend using your tablet for shopping online?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QB15

On a typical day, about how often do you spend browsing or searching the Web on your tablet?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

Question QC

PEOPLE WHO ANSWERED ABOVE THAT THEY DID NOT HAVE A COMPUTER OR LAPTOP WOULD SKIP THE QUESTIONS BELOW AND GO TO QUESTION QD

You've said you own a computer or laptop

QC1

On a typical day about how many minutes do you spend using your computer for any purpose?

Less than 5 minutes

5-20 minutes

21 to 40 minutes

41 to 60 minutes

61-90 minutes

91-120 minutes

More than two hours

QC2

In the past seven days about how frequently would you say you have used your computer for any purpose

_0 Never

_1 Rarely

_2 Infrequently

_3 Frequently

_4 Very Frequently

QC3

On a typical day about how many minutes did you spend using your computer to consume news stories provided by news organizations like newspapers or TV news channels

Less than 5 minutes

5-20 minutes

21 to 40 minutes

41 to 60 minutes

61-90 minutes

91-120 minutes

More than two hours

QC4

In the past seven days about how frequently would you say you have used your computer? to consume news stories provided by news organizations?

_0 Never

_1 Rarely

_2 Infrequently

_3 Frequently

_4 Very Frequently

Thinking about the total time you use your computer for news, how often do you

QC5

Get it directly from news organization websites that you reach through your browser

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QC6

Get it indirectly through links provided by friends or other users on social media networks, such as Facebook and Twitter.

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QC7

Get it indirectly through links included in e-mail messages.

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QC8

Stumble onto news stories of interest to you while using your computer?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QC9

About how often in the last seven days have you used your computer to interact with any social media networks, such as Facebook, Twitter, LinkedIn, or Pinterest?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QC10

About how often in the last seven days did you interact with social media networks on your computer?

- _0 Never
- _1 Rarely

- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QC11

About how often in the past seven days, have you shared any news stories using social media on your computer?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QC12

About how often in the last seven days did you spend using your computer for entertainment like watching videos or playing games?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QC13

About how often in the last seven days did you spend using your computer for shopping online?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

QC14

In the last seven days about how often did you spend browsing or searching the Web on your computer?

- _0 Never
- _1 Rarely
- _2 Infrequently
- _3 Frequently
- _4 Very Frequently

Question QD

The following questions are intended to provide information about the use of printed newspapers and television sets. In the last seven days about how often did you used each of the following sources for any types of news and information?

- _0 Never
- _1 Rarely

Stories produced by professional journalists are less biased than most other news sources.
I like trying new technology
I take the initiative to find out about new technology
I often talk to my friends and neighbors about the latest technology.
I often provide lots of information to your friends and neighbors about new technology
People often ask me about a new technology.

Do you live in an urban, suburban or rural area?

Urban

Suburban

Rural

Some people like to follow the news all or most of the time. Others don't follow it that often.
How about you? Would say you follow the news (Never....Multiple times a day)

That concludes the questionnaire. Thank you very much for participating.