

News on New Devices:
Examining Multiplatform News Consumption in the Digital Age

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Abstract

The average news consumer in the United States has never had as many choices for news consumption as now. Technological advances have allowed them to access the news on multiple devices such as computers, smartphones, e-readers, and/or tablets. This study empirically examined whether multiplatform news consumption is a reality and the extent to which people own, use, and enjoy multiple electronic devices. Data was collected via a web-based survey from a random sample of the American adult population in August 2010. The results suggested that, despite the excitement about newer, more portable devices, the computer still is the dominant day-to-day electronic platform for news access, and most people use only one electronic device for news purposes on a weekly basis. We identified the predictors of device ownership and multiplatform news consumption. Managerial implications are discussed.

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Introduction

The American newspaper industry has been experimenting with online delivery for more than a decade. *The New York Times* launched its Web edition in 1996; since then, most news organizations have been delivering content through the Internet. Propelled further by technological advances such as smartphones (e.g., the iPhone) and e-book readers (e.g., Amazon's Kindle), news publishers started experimenting with news delivery through mobile devices.¹ More recently, the launch of the computer tablet—the iPad—by Apple Inc. in 2010 has renewed the excitement (CNet, 2010) and newspaper publishers are scrambling to create new versions of their paper especially for this device (PostMedia News, 2010; Carr, 2010). Rupert Murdoch's company recently released "The Daily," a subscription-based electronic newspaper created specifically for the iPad (Sandoval, 2011).

Newspapers are knee-deep in explorations of various online delivery channels and have shifted a substantial amount of their dwindling resources from their print edition to these new devices, believing that younger readers will embrace these devices as new sources of news and information. Overall, most American media companies have adopted a 360-degree strategy that incorporates taking content decisions "shaped by the potential to generate consumer value and returns through multiple platforms of expression of that content and via a number of distributive outlets" (Doyle, 2010, p. 432). Despite investments in these new platforms and consciously

¹ For example, *The New York Times* created a social news application for the iPhone that allows people to follow the news being followed by their friends on various social networks (Schonfeld, 2011).

diverging their product portfolios, it is not clear whether media corporations will reap the kind of profits they envision or news consumers will adopt their new products with the readiness they expect and forecast. Take their Web operation for example—after 15 years of experimentation, only 10% of the newspaper’s total ad revenue comes from the Web operation (Newspaper Association of America, 2009). As newspaper companies explore newer ways of delivery with the same excitement, are they really gaining new ground? At the end of the day, it is consumer demand that will determine the future of the news industry. The purpose of this study, therefore, is to investigate whether multiplatform news consumption is a reality and the extent to which people own, use, and perceive multiple electronic devices. Based on a random-sample online survey of American Internet users, this study examines the ownership of and news use on these devices, and whether news companies ought to focus their limited resources on these new avenues rather than their traditional/legacy media platforms.

Literature Review

Multiplatform News Enterprises & Multiplatform News Consumption

The average American news consumer has never had nearly as many choices for news consumption as today. More people in the United States now own wireless devices such as computer notebooks and netbooks, smartphones, e-book readers, and tablets compared to before. A recent study by Pew Internet research stated that 59 percent of American adults used a wireless connection by means of a computer or cell phone to access the Internet (Smith, 2010a). With so many gadgets permeating the market and offering a myriad of platforms and options for people to access media, news businesses have begun targeting this fragmented market through convergence and adoption of a 360-degree strategy towards content production.

Digitization of news content and processes have led to easy flow and facilitation of data files across various platforms such as print, radio and television, thus leading to “media convergence” (Garcia Aviles & Carvajal, 2008). In other words, contemporary audiences are cross-platform consumers who consume media through various channels (Albarran, 2010). No longer are they restricted to a newspaper, a television channel or a radio. They can now get the same content via their computer tablets, cell phones, podcasts, e-readers and other mobile devices. Media scholars have found it difficult to come up with a conceptualization of *convergence* which is agreed upon by all (Daily, Demo & Spillman, 2005). Researchers have either defined it as a coming together of disparate media entities such as print, broadcast and online news organizations and their consequent converged outputs or an internal integration of broadcast or print and online newsrooms within the same organization (Thurman & Lupton, 2008). In his book *Convergence culture: Where old and new media collide*, author Henry Jenkins (2006) wrote that convergence encouraged news consumers to seek new information across different platforms and make sense of it for themselves despite the content’s dispersed state and this is how we have also approached the concept for the purpose of this paper.

Propelled by technological advances, media companies have had to keep up with the changing times and transform themselves into multiplatform media enterprises (Albarran, 2010), producing and offering more than one product in the market. Spreading themselves across various platforms and developing “cross-media product portfolios” (Picard, 2005, p.1) not only help media companies reduce their risk of loss from events such as product failure, decreasing demand and changing business cycles but also help them explore new revenue streams.²

² Cross-media portfolios are best understood as the phenomena when say a newspaper enters the broadcasting market or when an online site and news magazine join hands to provide more products.

However, managing cross-media portfolio also creates new challenges because it becomes increasingly difficult to enumerate user demand.

Multimedia platforms and cross-media portfolio approaches have led to what is known as the 360-degree strategy that involves strategic decisions related to content from the conceptual stage that are focused toward generating consumer value and returns through multiple forms of expression of that content via a number of distributive outlets such as online, mobile and games (Doyle, 2010). For example, the *New York Times* not only offers a paper product, but also a news site on the Web as well as news applications (apps) for various smartphones such as iPhones and Android-based phones and tablets such as the iPad. As a result, the content created by the company, while similar, is produced keeping each individual platform in mind. However, in order to gain any success in expanding across platforms and operate the cross-media portfolios, it is important for media companies to regularly re-evaluate and analyze their product offerings and adapt to changing market conditions so as to direct their resources towards those that are important to the company (Picard, 2005).

In an attempt to evaluate and analyze media companies' product offerings bearing the introduction of new technological devices and platforms in mind, we propose the following research questions:

RQ1: What are the penetration rates of various electronic devices (e.g., computers, smartphones, e-readers, and the iPad)?

RQ2: To what extent do people access news through their owned devices?

The underlying logic of media companies adopting multiplatform strategies is based on the belief that these are new ways of ensuring they don't lose their audiences and continue to

reach out to them. Consumers may choose to read the news online instead of on paper but the idea is they should continue to read the news. It would seem natural to assume users of new devices that allow for Internet access might also use it to read the news, but such an assumption may be oversimplifying the reality. According to David Mindich (2005), author of *Tuned out: Why Americans under 40 don't follow the news*, most young people go online “for anything but news” (p.4). The same complexity may characterize the use of mobile devices. Smartphones, e-readers, and tablets are all multi-functional devices that are not designed specifically for news purposes. Smartphones, despite being highly portable devices, have relatively small screens. A recent Pew study shows only 11% of the American adult population reported having an app on their smartphones or tablets for local news and information and only 1% pays for these apps (Purcell, Rainie, Rosenstiel, & Mitchell, 2011). E-book readers such as the Kindle, often described as “more suited to reading,” to date still lack color displays. The *New York Times*, the most popular newspaper title on the Kindle (Benton, 2008b), had only 10,000 subscribers in late 2008 (Benton, 2008a). A 2009 story in *Time* magazine asked, “Will Amazon's Kindle Rescue Newspapers?” (Quittner, 2009), implying that just as the e-reader gave a new lease on life to the trade books, the same outcome could be expected for newspapers. Such high (and false?) hopes were soon replaced by expectations for something newer: the iPad.

To differentiate various devices' applicability for news consumption, this study introduces a new concept, “newsfulness,” to measure the likelihood that a device or gadget is used for news. The analysis sought to determine how “newsful” each electronic device is by addressing the following research question:

RQ3: For a particular multi-purpose device, what is the likelihood that it is used to access news?

Technology Clusters

Media researchers have found that simultaneous use of multiple news media is common among Internet news users, thus leading to complementary use of news products (Chyi & Huang, forthcoming; Chyi, Yang, Lewis, & Zheng, 2010; Nguyen & Western, 2006). The researchers also found that those who relied on the Internet for news and information still used traditional sources quite substantially. These results are in keeping with Everett Rogers' idea that adoption of one idea could lead to the adoption of others and conceptualized technology clusters as, "one or more distinguishable elements of technology that are perceived as being interrelated," (2003, pp. 249). These studies underscore the relationship between online and traditional or legacy media use—consumers of one medium were highly likely to use the other.

Technologies that form a cluster would then have similar functional characters or satisfy the same underlying needs (LaRose & Atkin, 1992). For example, iPods³ can be perceived as compatible with personal computers and therefore, belong to the same technology cluster; an individual who owns a personal computer is more likely to buy an iPod compared to an individual who does not own a personal computer (Vishwanath & Chen, 2006).

Media scholars have found a positive relationship between previous use of technologies and early adoption of a new innovation that is similar. Westlund (2008) examined news use specifically on mobile devices by analyzing data from five national surveys carried out during 2005, 2006 and 2007 in Sweden and found that usage of mobile devices was higher among those who went online often, thus pointing to a technology dimension related to the use of mobile devices for news services. Further analysis showed that frequent users of online newspapers have

³ a portable audio and video player produced by Apple Inc.

adopted a mobile device as a news medium to a higher extent than the general public. The author concluded that use of mobile devices for news was more common among people who possess other technologies such as MP3 players, laptops, home theater systems and more. Kang (2002) found that people who watch television, have premium channels and evaluate their cable operator as innovative towards technology were more likely to upgrade to new cable services, sooner than their counterparts who did not display these behaviors. Vishwanath & Chen (2006) found that early adopters tend to perceive innovations as complementary as they relate to technologies based on their functional similarity. They are therefore likely to adopt related technologies.

Since previous research has found a relationship in adoption between mobile phones and online access as well as grouped iPods with computer use, our study expanded this set to include e-readers and the iPad, proposing the following hypotheses:

H1a: There is a positive relationship between the use of one device for news and the use of other devices for news.

H1b: There is a positive relationship between the use of one device for news and the use of other devices for news, after controlling for news interest.

A recent Pew survey (Smith, 2010b) revealed that from an array of devices (cell phones, desktop computers, laptop computers, mp3 players, game consoles, e-book readers and tablet computers), eight in ten American adults (78%) owned two or more of these devices. The study also showed that, while adults under the age of 45 tended to own up to four devices, those between the ages of 55 and 64 years owned two devices and those aged 65 years and older tended to own one device. However, they did not specify whether, how, or from what devices

news and information was accessed. Thus the information relevant to journalism researchers and the news industry is how many people actually access news on multiple devices. In other words, to what extent is news use through new devices a reality? In addition, this study sought to examine what factors account for the ownership of as well as news use on multiple devices, addressing the following research questions:

RQ4: To what extent do people access news across multiple platforms?

RQ5: What are the predictors of ownership of multiple electronic devices?

RQ6: What are the predictors of news access through multiple electronic devices?

Media Enjoyment

While consumption is important, as is usage of different platforms to consume media, past research has also identified attitudinal variables as key factors driving the media selection process (Chyi & Chang, 2009). For example, previous research shows that online news is perceived as less credible (Amsbary & Powell, 2003), less likeable (Chyi & Chang, 2009), less useful (De Waal, Schoenbach, & Lauf, 2005), and less preferred (Chyi & Lasorsa, 2002) when compared with traditional media.

Specifically, this study seeks to examine media enjoyment, which has primarily been studied as a pleasurable response to entertainment media (Tamborini, Bowman, Eden, Grizzard, & Organ, 2010). Most communication researchers use the term of ‘enjoyment’ to explain positive reactions towards media (Vorderer, Klimmt & Ritterfeld, 2004; Raney & Bryant, 2002) and have explored the relationship between people’s exposure to certain kinds of content and their reported level of enjoyment (Denham, 2004). In journalism research, however, “enjoyment” as a concept has remained understudied. As new and old media co-evolve, cross-media

differences, as perceived by users, carry important implications regarding the competitive advantage of news delivered through various devices. Therefore, this study seeks to address this research question:

RQ7: How do users evaluate different devices in terms of enjoyment? How do new devices fare in comparison with the legacy format (e.g., print newspaper)?

Method

Data Collection

A randomly selected sample of 776 U.S. adults (18 years and older) were administered an online survey between August 3-6, 2010. The sample was provided by Survey Sampling International (SSI), a research firm specializing in survey research with more than 30 years of experience. SSI provides survey samples (telephone, online, and mobile) in more than 70 countries and its North American online panel consisting of more than 1.4 million active households.⁴ The panelists were recruited from Web communities, databases, mailing lists, or other collections that have opted-in to participate in online survey research. Working with thousands of partners, SSI seeks to reach both highly visible and hard-to-reach groups on the Internet, such as ethnic minorities, young people, and seniors, to ensure that the sample is representative of the U.S. online population.

Online panel surveys have increased dramatically during the last decade because of obvious benefits such as the speed, the elimination of interviewer bias, and lower cost (Fisher, 2005). Compared with Random Digit Dialing (RDD), online surveys allow respondents to choose when and where to complete the survey, lowering the intrusiveness associated with

⁴ An “active” panelist is defined as someone who has taken a survey within the past six months.

telephone surveys and the social desirability effect, but response rates tend to be low (Fisher, 2005).

Like most panel-based surveys, a random sample of panelists was selected and the sample was invited to participate in the study. The sample size of 776 yielded a standard sampling error of ± 3.5 percentage points at the 95% confidence level.⁵ The response rate was four percent. This represents a low, but not unusual response rate for an online-based survey. The overall sample size—in this case, 776 respondents—plays a critical role in the stability of the findings as larger sample sizes tend to produce more reliable sample estimates (Shih & Fan, 2009).

Survey Instrument

The survey took an average of 10 minutes to complete and focused on the use of and attitudes toward traditional and online news platforms and devices. The questionnaire was developed based on the results of a focus group comprising 14 college students and several rounds of pretests.

Conceptual and operational definitions

The penetration rate of a particular electronic device is defined as the percentage of people who own or have regular access to the device.

⁵ The sampling error is calculated as the square root of $p(1-p)$ divided by sample size and multiplied by 1.96 (for the 95% confidence level).

A multi-purpose device's "newsfulness" is defined as the likelihood of the device being used for news access, which is calculated by dividing the numbers of user who use the device for news access by the total number of owners of that device.

Weighting

When the sample was compared to the American Internet population in terms of gender, age, income and education, we found it over-represented females and those in the lower income categories. To ensure that the sample demographics closely matched that of the population for more generalizable results, we weighted the data to correct for the differences in gender and income.

Results

Table 1 compares weighted and unweighted sample distributions to population parameters on gender, age, income, and education. The weighted sample is reasonably representative of the U.S. Internet population.

Table 1

A Comparison of the Sample and the U.S. Internet Population

	Internet population ^a (%)	Sample unweighted (%)	Sample weighted (%)
Gender			
Male	48.4	35.7	50.7
Female	51.6	64.3	49.3
Age			
18-34	33.0	29.9	28.8
35-54	41.2	45.2	44.6
55+	25.8	24.9	26.6
Income			
Less than \$50,000	36.6	64.3	35.8
\$50,000 to \$74,999	21.0	18.0	20.9
\$75,000 to \$149,999	30.7	14.7	31.0
\$150,000 +	11.7	3.0	12.4
Education			
Did not attend college	40.2	35.3	28.0
Attended college	29.8	33.4	31.3
Graduated college plus	30.0	31.3	40.7
N	223,672,000	776	776

^aSource: Mediamark Research & Intelligence data published by the U.S. Census Bureau, based on adults 18+ years old with Internet access as of fall 2008.

RQ1 sought to compare the penetration rates of various electronic devices. Table 2 shows that almost all respondents (98.8%) owned or had regular access to a desktop or laptop computer, which is not surprising given that this was a Web-based survey. About a quarter of the respondents owned a smartphone (10.1% owned an iPhone and 14.9% other smartphones). Some 12.9% owned an iPod Touch. Ownership of newer devices such as e-readers and the iPad was under 6% at the time of the study.

RQ2 asked to what extent people access news through their owned devices. Results showed that the desktop/laptop computer is the most used device for news access—74.9% of the respondents used it to get news at least once a week and 46% did so everyday. The smartphone was a distant second—about 19.6% accessed news through either an iPhone or other smartphones on a weekly basis, and 6.3% on a daily basis. As for the other devices (the netbook, iPod Touch, e-reader, and iPad), less than 10% of the respondents used them for news at least once a week and less than 5% did so everyday (Table 2).

RQ3 asked, for a particular multi-purpose device, what is the likelihood that it is used to access news. Table 2 presents the “newsfulness” ratio for each device in the last two columns. When the ratio was calculated by including users who used the device for news purposes at least once a week (column D in Table 2), the most “newsy” multiple devices are the iPad (1.31),⁶ followed by e-readers (.93), and the iPhone (.90)—suggesting that these relatively new portable devices, despite low penetration rates, were very much likely to be used for news access on a weekly basis.

When the ratio was calculated by including everyday users only (column E in Table 2), the desktop/laptop computer ranks the highest (.47), followed by the netbook and the iPad (.35 each), and the iPhone (.33)—suggesting that the computer is a more frequently used platform through which people access news and information. About one-third of iPad and iPhone owners use these portable devices to access news everyday.

⁶ It is noted that the iPad received an unusually high ratio that exceeds 1.0, the plausible reason being that some non-owners played with one that is not their own and tried to access news.

Table 2

Ownership, News Use, and Newsfulness of Devices

	A	B	C	D	E
	Ownership or regular access (%)	Use for news at least once a week (%)	Use for news everyday (%)	Newsfulness weekly ^a (B/A)	Newsfulness daily ^b (C/A)
Computer					
Desktop or laptop	98.8	74.9	46.1	0.76	0.47
Netbook	12.4	9.4	4.3	0.76	0.35
Smartphones					
iPhone	10.1	9.1	3.3	0.90	0.33
Other smartphones	14.9	10.5	3.0	0.70	0.20
iPod Touch	12.9	6.9	2.1	0.53	0.16
e-reader (e.g., Kindle, Nook, etc.)	5.7	5.3	1.6	0.93	0.28
iPad	5.1	6.7	1.8	1.31	0.35

Note. N = 776.

^aNewsfulness on a weekly basis is the percentage of owners who access news on this device at least one day a week, calculated as column B divided by column A.

^bNewsfulness on a daily basis is the percentage of owners who access news on this device everyday, calculated as column C divided by column A.

H1a predicted that there is a positive relationship between the use of one device for news and the use of other devices for news. Table 3 shows that this is indeed the case—all correlation coefficients are positive. In other words, the more often one uses an electronic device to get news, the more often one would use other devices to get news. **H1a** is supported.

H1b predicted that there is a positive relationship between the use of one device for news and the use of other devices for news, controlling for news interest. The partial correlation analysis produced highly consistent results after controlling for news interest. Overall, the relationships are only slightly weaker than the zero-order correlations. **H1b** also is supported (Table 3).

Table 3

Correlations/Partial Correlations Between Uses of Devices for News Access

	Desktop/ laptop	Netbook	iPhone	Other smartphone	iPod Touch	e-readers	iPad
Desktop/ laptop	—	.149** .107**	.172** .154**	.126** .083*	.113** .076*	.089** .069*	.104** .088**
Netbook		—	.562** .558**	.589** .583**	.556** .550**	.600** .598**	.564** .562**
iPhone			—	.434** .429**	.485** .481**	.545** .542**	.671** .670**
Other smartphone				—	.571** .565**	.538** .535**	.395** .392**
iPod Touch					—	.704** .703**	.502** .500**
e-readers						—	.582** .580**
iPad							—

Note. N = 776. The value on the top is Pearson's zero-order correlation coefficient. The value at the bottom is the partial correlation coefficient (controlling for news interest).

** Correlation is significant at the .01 level (1-tailed).

RQ4 asked to what extent people access news through electronic devices. In other words, how many devices are employed by an individual user for news access on a weekly basis? Results showed that 24% of the respondents did not use any electronic device to get news on a weekly basis. The majority (57%) used only one such device to access news, 10.4% used two, and only 8.5% used three or more such devices to get news. The average number of devices used for weekly news access is 1.2, compared with 1.6 for the three traditional platforms (print newspapers, television, and news magazines). Therefore, despite the growing number of new electronic devices available to Americans, traditional formats are still used more for news access.

RQ5 sought to identify the predictors of ownership of multiple electronic devices. Table 4 shows that age negatively predicts the ownership of electronic device ($\beta = -.390, p < .001$), while education, income, occupation (being a student), and news interest are positive predictors.

RQ6 sought to identify the predictors of news consumption on multiple electronic devices. Results of the regression analysis showed that income and occupation (being a student) dropped out of the model (Table 4). In other words, while income and occupation predict ownership of devices, they do not have an impact on news use through the devices.

Table 4

News Consumption on Multiple Electronic Devices

Predictors	Number of devices owned	Number of devices used for news at least one day a week
Gender (being female)	-.038 (.070)	-.048 (.095)
Age	-.390*** (.003)	-.373*** (.003)
Education	.122*** (.027)	.089* (.036)
Income	.163*** (.016)	.042 (.022)
Full-time student	.112** (.120)	.062 (.164)
News interest	.136*** (.029)	.245*** (.040)
Observed cases	771	771
Model	$F(6, 764) = 43.30$ $p < .001$	$F(6, 764) = 31.89$ $p < .001$
R ²	.254	.200

Note. Cell entries are beta weights and standard errors.
* $p < .05$. ** $p < .01$. *** $p < .001$.

RQ7 asked how users evaluate different devices in terms of enjoyment and how new devices fare in comparison with the legacy platforms (e.g., print newspapers, TV, and news

magazines). Table 5 shows the results. Among the new devices, the desktop/laptop computer is the most enjoyable and other smartphones the least. The average score for the new devices is 5.28, trailing behind the average (5.73) for legacy platforms (i.e., print newspapers, TV, and news magazines).

Table 5

Enjoyment Level: New Devices vs. Traditional Platforms

Electronic Devices	Enjoyment level among users (0-7)	Traditional Platforms	Enjoyment level among users (0-7)
Computer		Print newspapers	5.94
Desktop or laptop	5.89	TV	6.09
Netbook	5.19	News magazines	5.16
Smartphones			
iPhone	5.52		
Other smartphones	4.72		
iPod Touch	5.12		
e-reader (e.g., Kindle, Nook, etc.)	5.07		
iPad	5.46		
Average	5.28		5.73

Discussion

Overall, this study examined how users access and perceive news on new devices and presented a comprehensive picture regarding multiplatform news consumption. The findings challenge a number of assumptions about news use on new devices. Broadly speaking, our results have three implications: 1) not all devices are equally “newsful,” 2) news consumption on multiple devices is not yet a reality, and 3) newer platforms are not more enjoyable for news consumption in comparison to the traditional platforms.

Not All Devices Are Newsful

With many media companies investing a significant amount of their budgets in creating news applications to reach out to the increasing number of adopters of new technologies such as netbooks, smartphones, e-readers, and iPads, it is important to question the underlying assumption that owners or users of these devices would access online news on these platforms. Our results showed a modest adoption rate of smartphones—a fourth of the total sample owned either an iPhone or a similar kind of smartphone. And ownership of e-readers and the iPad was much lower—under 6% each.

Moving beyond adoption, this study introduced the concept of “newsfulness,” a new concept that helps evaluate the applicability of new technology to news consumption. The analysis showed how “newsful” each new electronic device is. Among the owners of the technology, 5% or less used a netbook, iPod Touch, e-reader and iPad for news everyday. Overall, the everyday news access rate for all but one electronic device (desktop/laptop computer being the exception) is below 0.35, which means, of all who own these devices, only a third or less use them for news everyday. This leads us to believe that these devices (netbooks, smartphones, iPod Touch, e-readers, and iPad) are not very “newsful” or conducive to accessing online news. Coupled with the modest to low penetration rates of these devices, actual news consumption that occurs on these new devices is limited.

According to the latest Pew study on local news access through mobile devices, nearly half of American adults (47%) reported getting at least some local news and information on their cellphone or tablet computer (Rosenstiel, Mitchell, Rainie & Purcell, 2011). However, 42% of

mobile device owners said they sought weather updates while 37% said they looked for information related to restaurants and other local businesses.

These findings suggest that media companies should exercise some caution or skepticism when adopting a technological deterministic approach towards the future of news. Introduction of new technology is almost always accompanied by excitement about its myriad possibilities and capabilities. But our results showed that there is low adoption of these new devices and they may not necessarily be used for news purposes. In comparison, respondents are most likely to access the news through the desktop/laptop computer—the oldest, least-fancy electronic “device.” This reiterates our previous conclusion that newer devices may not necessarily be as “newsful.” It also shows that the launch of a new and elaborate device will not necessarily translate into people using it to access news.

News on New Devices: Not Yet a Reality

Support for our hypothesis, based on technological cluster adoption, suggests that adoption of new electronic devices is, in general, restricted to a particular group of people and may not translate into wider access amongst the population. This would only aggravate the existing digital divide—the phenomenon that “might exacerbate inequality rather than ameliorate it” amongst those who have internet access and those who do not (Dimaggio, Hargittai, Celeste & Shafer, 2004). For media companies, creating product portfolios on multiple platforms may result in their pursuing a relatively small group of consumers who own and access news through multiple devices—i.e., those who are younger, better educated, and more interested in news.

Indeed, our results showed that more than half of the respondents used just one electronic device to get the news. Less than 10 percent used three or more such devices to get the news.

Overall, from the seven news devices included in this study, an average user used 1.2 such devices. Interestingly, when the same analysis was run on three traditional platforms—namely print newspapers, television and news magazines—the average number of platforms used for news access is 1.6. This is a fairly strong indication that traditional news platforms, despite a shrinking user base, still play an important role in providing information to the news consumer. This is yet another reiteration of the fact that media companies must approach new technologies with a mix of enthusiasm and caution; they must not do so at the cost of their traditional offerings, which remain their core products and primary revenue drivers.

Traditional Platforms Remain Enjoyable

Despite the growing audience adoption and usage of new devices, our analysis showed that, compared with traditional platforms, newer devices do not yield a more enjoyable user experience. On a scale of 0 to 7, the three traditional media fared 5.73—TV ranked the highest at 6.09, with newspapers coming in second at 5.94. In contrast, the seven electronic devices fared 5.28, with the computer (desktop or laptop) ranked the highest at 5.89. The results showed that new devices may be fancier but are not perceived as more enjoyable for accessing news. Traditional platforms still play an important role in the changing media scene.

In summary, our findings suggest that media companies, while adopting 360-degree and multiplatform approaches, must continue to invest in their core products on traditional platforms. Clearly, traditional platforms have not reached the end of their road just yet. Despite online news delivery through a variety of new devices, most respondents enjoyed accessing the news on traditional platforms more than they did via the new electronic gadgets. This corresponds to findings from previous research that people felt news received online was less credible (Amsbary

& Powell, 2003), less likeable (Chyi & Chang, 2009), less satisfying (Online Publishers Association, 2008), less preferred (Chyi & Lasorsa, 2002), less useful (De Waal, Schoenbach, & Lauf, 2005), or inferior (Chyi & Yang, 2009), compared with the news received via a print newspaper.

Taken together, adoption of these new devices is still fairly low and while this number may increase in the future, our study indicates that ownership of these devices may not translate into their being “newsful.” We believe that while new technologies do seem promising and may possibly hold some effective solutions for the struggling news industry, traditional or legacy media will continue to play an important role in providing news to the interested consumer.

In the latest “State of the News Media” report, Rosenstiel and Mitchell (2011) carried a word of caution about multiplatform news distribution from the economics perspective: “Each technological advance has added a new layer of complexity—and a new set of players—in connecting that content to consumers and advertisers.” This is because multiplatform news organizations increasingly rely on aggregators (Google, Yahoo!) and social networks (Facebook, Twitter) to help draw audiences and must follow the rules of device manufacturers (Apple) and software developers (Google) to get their content delivered. What’s worse, each new player takes a share of the revenue and in many cases also control audience information (Rosenstiel & Mitchell, 2011).

From the portfolio management perspective, false hopes often lead to bad decisions such as killing or deprioritizing existing products that generate most of the revenue. Since portfolio expansion does not always improve company performance (van Kranenburg, 2005), media firms

should evaluate how users respond to their cross-media product offerings with reality-based data to develop proper portfolio management strategies.

Limitations of This Study

The data were collected through an online survey. As a result, all respondents were computer users with Internet access and people without Internet access were not included in the sample. In addition, because all respondents were computer users, they may favor the computer as a news platform. Despite the limitations of the online survey, this study served as a timely and systematic examination of multiplatform news consumption, taking into consideration all electronic devices that granted news access at the time of the survey. Future studies should continue monitoring the adoption rate of these devices, their “newsfulness,” as well as each platform’s cost-effectiveness and ROI (return on investment) as media companies keep rolling out new services.

References

- Albarran, A. B. (2010). *The media economy*. Hoboken: Routledge.
- Amsbary, J. H., & Powell, L. (2003). Factors influencing evaluations of Web site information. *Psychological reports*, 93(1), 191-198.
- Benton, J. (2008a, November 25). NYT's 10K subscribers on Kindle: The start of something bigger? *Nieman Journalism Lab*. Retrieved March 15, 2011, from <http://www.niemanlab.org/2008/11/nyts-10k-subscribers-on-kindle-the-start-of-something-bigger/>
- Benton, J. (2008b, November 26). More on Kindle: Seattle, San Jose doing well; Houston not so much. *Nieman Journalism Lab*. Retrieved March 15, 2011, from <http://www.niemanlab.org/2008/11/more-on-kindle-seattle-san-jose-doing-well-houston-not-so-much/>
- Carr, D. (2010, November 21). A News Corp. newspaper, but not in print. *New York Times*. Retrieved December 11, 2010 from <http://www.nytimes.com/2010/11/22/business/media/22carr.html>
- Chyi, H. I., & Chang, H. (2009). Examining the use of and preference for online news in the context of intermedia competition. In *Embedding into our lives: New opportunities and challenges of the Internet* (pp. 101-123). Hong Kong: Chinese University Press.
- Chyi, H. I., & Huang, J. S. (forthcoming). Demystifying the demand relationship between online and print products under one newspaper brand: The case of Taiwan and the emergence of a universal pattern. *Asian Journal of Communication*.
- Chyi, H. I. & Lasorsa, D. L. (2002). An explorative study on the market relation between online and print newspapers. *Journal of Media Economics*, 15(2), 91-106.
- Chyi, H. I., Yang, M. J., Lewis, S. C., & Zheng, N. (2010). Use of and satisfaction with newspaper sites in the local market: Exploring differences between hybrid and online-only users. *Journalism & Mass Communication Quarterly*, 87(1), 62-83.
- CNet News (2010, April 3). Apple iPad launch today. *CNet News*. Retrieved December 11, 2010 from http://news.cnet.com/8301-13579_3-20001601-37.html
- Dailey, L., Demo, L., & Spillman, M. (2005). The convergence continuum: A model for studying collaboration between media newsrooms. *Atlantic Journal of Communication*, 13(3), 150-168.
- Denham, B. E. (2004). Toward an explication of media enjoyment: The synergy of social norms, viewing conditions and program content. *Communication Theory*, 14(4), 370-387.
- De Waal, E., Schoenbach, K., & Lauf, E. (2005). Online newspapers: A substitute or complement for print newspapers and other information channels? *Communications*, 30(January), 55-72.
- Dimaggio, P., Hargittai, E., Celeste, C. & Shafer, S. (2004). Digital inequality: From unequal access to differentiated use. In Kathryn Neckerman (Eds.), *Social inequality* (pp. 355-400). New York: Russell Sage Foundation.
- Doyle, G. (2010). From television to multi-platform: Less for more or more for less? *Convergence: The International Journal of Research into New Media Technologies*, 16(4), 431-449.
- Fisher, L. (2005, July). Random sampling versus panel-based research. *MRA Alert Magazine*. Retrieved from <http://www.synovate.com/research-services/online-panel->

- research/pdf/Synovate-Random%20Sampling%20versus%20Panel-Based%20Research-Article56.pdf
- Garcia Aviles, J. A. & Carvajal, M. (2008). Integrated and cross-media news convergence: Two models of multimedia news production—The cases of Novotecnica and La Verdad Multimedia in Spain. *Convergence: The International Journal of Research into New Media Technologies*, 14(2), 221-239.
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York: New York University Press.
- Kang, M-H. (2002). Digital cable: Exploring factors associated with early adoption. *Journal of Media Economics*, 15(3), 193-207.
- van Kranenburg, H. (2005). Product portfolios, diversification, and sustainability of media firms. In R. G. Picard (Ed.), *Media product portfolios: Issues in management of multiple products and services* (pp. 23-40). Hoboken: Routledge.
- LaRose, R. & Atkin, D. (1992). Audiotext and the re-invention of the telephone as a mass medium. *Journalism Quarterly*, 69(2), 413-421.
- Mindich, D. T. Z. (2005). *Tuned out: Why Americans under 40 don't follow the news*. New York: Oxford University Press.
- Newspaper Association of America. (2009, February 20). Advertising expenditures. Retrieved from <http://www.naa.org/TrendsandNumbers/Advertising-Expenditures.aspx>
- Nguyen, A., & Western, M. (2006). The complementary relationship between the Internet and traditional mass media: The case of online news and information. *Information Research*, 11(3), 259.
- Picard, R. G. (2005). The nature of media product portfolios. In R. G. Picard (Ed.), *Media product portfolios: Issues in management of multiple products and services* (pp. 1-22). Hoboken: Routledge.
- Postmedia News (2010, December 11) Papers launch apps for Apple's iPad. *Calgary Herald*. Retrieved December 11, 2010 from <http://www.calgaryherald.com/technology/Papers+launch+apps+Apple+iPad/3961929/story.html>
- Purcell, K., Rainie, L., Rosenstiel, T., & Mitchell, A. (2011, March 14). How mobile devices are changing community information environments. Pew Internet & American Life Project, . Retrieved March 15, 2011, from <http://pewinternet.org/Reports/2011/Local-mobile-news/Summary-of-findings.aspx>
- Quittner, J. (2009, May 5). Will Amazon's Kindle rescue newspapers? *Time*. Retrieved from <http://www.time.com/time/business/article/0,8599,1895737,00.html>
- Raney, A. A., & Bryant, J. (2002). Moral judgment and crime drama: An integrated theory of enjoyment. *Journal of Communication*, 52(2), 402-415.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.
- Rosenstiel, T., Mitchell, A., Rainie, L. & Purcell, K. (2011). The state of the news media 2011: An annual report on American journalism. Survey: Mobile news & paying online. Retrieved March 15, 2011, from <http://stateofthemedias.org/2011/mobile-survey/>
- Rosenstiel, T. & Mitchell, A. (2011). The state of the news media 2011: An annual report on American journalism. Overview. Retrieved March 15, 2011, from <http://stateofthemedias.org/2011/overview-2/>

- Sandoval, G. (2011, February 2). Daily iPad newspaper debuts. *CNET News*. Retrieved February 15, 2011 from http://news.cnet.com/8301-31001_3-20030385-261.html?tag=contentMain;contentBody#ixzz1Cp9MF2Dm
- Schonfeld, E. (2011, February 1). Exclusive: An early look at News.me, the New York Times' answer to The Daily. *TechCrunch*. Retrieved February 15, 2011 from <http://techcrunch.com/2011/02/01/news-me/>
- Shih, T.-H., & Fan, X. (2009). Comparing response rates in e-mail and paper surveys: A meta-analysis. *Educational Research Review*, 4(1), 26-40.
- Smith, A. (2010a, July 7). Mobile access 2010. *Pew Research Center's Internet & American Life Project*. Retrieved March 16, 2011, from <http://www.pewinternet.org/Reports/2010/Mobile-Access-2010.aspx>
- Smith, A. (2010b, October 14). Americans and their technology devices. *Pew Internet & American Life Project*. Retrieved March 16, 2011, from <http://www.pewinternet.org/Reports/2010/Gadgets/Report.aspx?view=all>
- Tamborini, R., Bowman, N. D., Eden, A., Grizzard, M., & Organ, A. (2010). Defining media enjoyment as the satisfaction of intrinsic needs. *Journal of Communication*, 60(4), 758-777.
- Thurman, N. & Lupton, B. (2008). Convergence calls: Multimedia storytelling at British news sites. *Convergence: The International Journal of Research into New Media Technologies*, 14(4), 439-455.
- Vishwanath, A. & Chen, H. (2006). Technology clusters: Using multidimensional scaling to evaluate and structure technology clusters. *Journal of the American Society for Information Science and Technology*, 57(11), 1451-1460.
- Vorderer, P., Klimmt, C., & Ritterfeld, U. (2004). Enjoyment: At the heart of media entertainment. *Communication Theory*, 14(4), 388-408.
- Westlund, O. (2008). From mobile phone to mobile device: News consumption on the go. *Canadian Journal of Communication*, 33(3), 443-463.