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Alabama's newspapers, like all traditionally print news outlets, are struggling to balance the increasing demand of audiences for information delivered digitally with shrinking revenues and newsroom resources. A content analysis of 123 APA member papers found that only one Alabama paper had a designated mobile application as of February 2010. Further, the majority of papers didn't have other delivery options that could be accessed in other forms on mobile devices. Of the 97 of those papers with active websites, only 15.5% percent had text delivery options, and 29.9% had e-mail digests (Zirlott, 2010).

This study looks at the demand among Alabama newspaper readers for news from their local paper delivered in a mobile or digital format. Further, the study investigates exactly what type of information (from breaking news, to maps, to advertising) newspaper readers would like Alabama's newspapers to provide in a mobile environment. The study aims to identify patterns in the types of information people want and seeks to see what these patterns tell us about how information sought in a mobile setting might differ from the nature of traditional content in a print format. Finally, the study asks if the ways that people access the Internet is related to differences in preferences for information delivered via mobile devices and other digital formats.

Using a convenience sample of Alabama newspaper readers reached through an online survey, this study poses questions aimed at providing understanding to the relatively new widespread desire for news and information delivered to mobile devices. While generalizability will be limited, the study is the first of its kind and can assist the state's newspapers as they make decisions about where to devote resources in a changing media environment. This dialogue

between news users and providers will shed light on what content works best with a new delivery medium.

Literature Review

Blurring boundaries

Studies of how online newspapers are used have stopped short of fully examining the emergence of likes and dislikes in readers unforeseen by producers (Boczkowski, 2002). As a whole, research in this growing field of inquiry gives a striking image of the “emergence of a multifaceted process of boundary blurring, shaping the contours of traditional media’s forays in the new information environments” (Boczkowski, 2002, p. 11). These boundaries are reshaped by a transition in the news ecology much like “a sea change in our notion not so much of what knowledge is but of what it is we want to know” (Geertz, 1983, p. 34). The change is also in how we want to know it, particularly on the go (Sarker, 2003). One example of a blurring boundary is the division between print and broadcast journalism, given that Web sites and mobile applications of print papers make increasing use of audio and video files, and their counterparts of television and cable operations are filled with text (Boczkowski, 2002).

Special delivery – News About the Neighborhood

Local newspapers have served traditional news appetites for generations, centering around community-building information. By distributing general information about happenings and civic life in a community, local newspapers bonded together community members around important issues affecting their daily lives (Fleming, 2009). Local newspapers’ in-depth reporting, analytical editorials and business news updates and advertisements provided readers with the widest general coverage of community affairs and activities (Ray, 1999).

The information newspaper readers want to in a mobile environment differ from what they read in their printed local paper. News appetites traditionally directed toward local newspapers focus on civic participation and community life. (Tewksbury & Althaus, 2000). Content that served these demands included in-depth reporting on local issues, editorial analysis on the issues, news and advertisements from local businesses and feature stories on community members. This set of information convened conversations within the community. (Tewksbury & Althaus, 2000).

Research in Internet and Mobile Communications

In approaching the question what type of news and information content newspaper readers want in a mobile environment, there is not a large body of knowledge on this subject to formulate assumptions. Much of the published works on mobile communication, which is the fastest-growing communication technology ever (Castells, Fernandez-Aredeva, Qiu, & Sey, 2007), looks at the phenomenon of mobile phone and text message use (Campbell & Russo, 2003). Yet, many of the insights within this young field of inquiry are also relevant to the next generation of mobile devices, increasingly efficient at accessing e-mail and Web sites and equipped with applications that aggregate and deliver information from the Internet (Westlund, 2009). Thus, studies in the field of Internet communication are also helpful in understanding the possibilities of mobile devices.

Campbell and Park (2008) argued that civilization is exiting the age of mass communication and entering a new age of personal communication defined by point-to-point networked interaction. As mobile communication devices become more prevalent and more sophisticated, this personalized network society will only become more distinctive. The

distinguishing characteristics that appear to be emerging, and which have been studied to some extent, include new forms of relational communication such as active “perpetual contact” and constant “possible communication,” creating “hyper-coordination” (Lin, 2009). Smartphones and other mobile Internet devices, with their seamless connectivity, increased personalization, and endless potential for users to be co-creators of the media in the palm of their hands (Castells, et al. 2007), are not merely the sum of mobile phones and Internet capability.

Speedy delivery – The News App

One measure that has been used to determine what news readers seek out in a mobile setting includes reports of user activity on the mobile device application from the Associated Press, AP Mobile (Saba, 2009). The Associated Press was the first company to debut a dedicated iPhone news application, in June 2008, and won a Webby Award for its popular platform, developed by Verve Wireless (AP, May 2009). After one year, the number of AP members choosing to distribute their news content on AP Mobile rose from 107 to more than 1,000 local, regional and national news sources (AP, May 2009). In November 2009, AP and Verve announced they would offer a content delivery framework developed by White Label that would assist local publishers in launching their own customized, branded mobile applications based on the award-winning AP Mobile platform. Designed by software companies Verve and White Label, the app provides users access to local news based on the zip code they enter in their settings. Member newspapers of the Associated Press in Alabama that included in this service are: Fort Payne Times-Journal, The Valley-Time News, The Decatur Daily, The Huntsville Times, The Mobile Press-Register, The Birmingham News, The Daily Home, The Anniston Star, The Selma Times-Journal, The Troy Messenger, The Andalusia Star-News, The Athens News-

Courier, The Cullman Times, The Opelika-Auburn News, The Dothan Eagle, The Gadsden Times, The Florence Times Daily, The Tuscaloosa News, The Sand Mountain Reporter and The Scottsboro Daily Sentinel. This list comprises virtually all the dailies and several of the weeklies. (AP Mobile Content Contributors).

Mobile Newsies

In fact, the number of news corporations that have developed applications for the iPhone and other smartphone devices is rapidly increasing, ranging from legacy print media companies such as *The New York Times* to new aggregator services such as Fluent News Reader, from audio content producers NPR to video magnates CNN (McCombs, 2009). According to a March 2010 study by the Pew Research Center Internet and American Life and the Project for Excellence in Journalism, the internet is now the third most-popular news platform, behind local and national television news and ahead of national print newspapers, local print newspapers and radio. At the center of this change are multi-media Internet and mobile technologies, making the news portable (33% of cell phone owners now access news on their cell phones), personalized (28% of internet users have customized their home page to include news from sources and on topics that particularly interest them, and participatory (37% of internet users have contributed to the creation of news, commented about it, or disseminated it via postings on social media sites like Facebook or Twitter). (Pew Research Center Internet and American Life and the Project for Excellence in Journalism, March 2010). Social networking technology also factor heavily into the “new” journalism as, among those who get news online, 75% get news forwarded through email or posts on social networking sites and 52% share links to news with others via those means. There is opportunity for news sources to play a role as a filter and interpreter, Americans

have mixed feelings about this “new” news environment. More than half (55%) say it is easier to keep up with news and information today than it was five years ago, but 70% feel the amount of news and information available from different sources is overwhelming. (Pew Research Center Internet and American Life and the Project for Excellence in Journalism, March 2010).

User Interaction

As news organizations begin to embrace this trend—by creating content that optimizes Internet and handheld device interfaces and by implementing software that delivers the content through these media—the experience of these methods of news and information-getting becomes richer (Westlund, 2008). A Verve Wireless report gives the following statistical breakdown of user interaction with content on the AP Mobile application: On average, AP Mobile users spend 17 minutes per month interacting with AP mobile applications and apnews.com. More than 50% of AP Mobile news accessed fall in the content category of Top Stories, followed by Local News (21%), Entertainment (9%) and Sports (7%). (Verve Wireless, November 2009). Verve announced in February 2010, at which time more than three million mobile applications had been downloaded, that mobile access to news through the Verve Network had increased dramatically in the course of one year. (Verve Wireless, February 2010). Their figures from the month of December 2009 reported that 100 million mobile news pages were served, a 160% increase year over year, and more than eight million readers accessed news from mobile devices via Verve's mobile publishing platform, a 500% increase from the same period a year prior.

In the company's press release, dated February 3, 2010, president and co-founder Tom Kennedy is quoted making predictions of a substantial increase in traffic to mobile news apps, projected at a total of 2.2 billion total page views served by the end of the year. Kennedy said:

The amount of page views to our local media partners has grown tremendously this past year, and is indicative of how quickly consumers are adopting new ways to access their news and information. As we roll out our white label app solution we expect a tremendous increase in readership. If this rate continues because of growing adoptions, the increasing sophistication and ease of smartphones, and prevalence of high speed networks, we are looking at over 20 million people visiting our publishers' mobile sites and applications, and serving up approximately 300 million mobile news pages to those readers by this time next year. (Verve Wireless, February 2010. ¶3).

Perhaps most noteworthy is the types of online and mobile news accessed by users. (Tewksbury, 2003) Verve reported that local news maintains users' interests but breaking news creates traffic spikes (Verve Wireless, February 2010). Within local news, which was the most accessed content, were included first general news and then sports content. However, major breaking world or national news drove the biggest traffic spikes, for example the news of Michael Jackson's death spurred a daily increase in traffic by 133%. Verve reported that viewership had increased by 106% for local media as more than seventy local media companies started mobilizing their video content through Verve's platform (Verve Wireless, February 2010).

Research Questions

Understanding the form and nature of newspaper readers' new wants in a mobile environment and the relationship to types of readers and their demographics is crucial for news producers in connecting with this population. Therefore, the following research questions were posed:

RESEARCH QUESTION 1: What information from their local newspaper would Alabama newspaper readers most like to see delivered through a mobile application?

RESEARCH QUESTION 2: What patterns emerge in desire for information from local newspapers delivered online or through a mobile application?

RESEARCH QUESTION 3: Which demographic variables are related to a stronger desire for “non-traditional” information from a local newspaper in an online or mobile environment?

Does this vary by those who use mobile Web access vs. those who don't?

RESEARCH QUESTION 4: How is Internet connectivity related to the importance placed on non-traditional information from a local newspaper?

Method

A Web-based survey was used to explore the above research questions. To understand the relationships between the spectrum of preferences and characteristics in Alabama newspaper users with what they say they want from their local papers in a mobile setting, an analytical survey proved the best research method to fulfill this goal. The difference between an analytical survey and a descriptive survey is that the goal of the former is to explain relationships between constructs, while the latter seeks to describe a characteristic in a larger population (Luther, 2009). The goal of the first research question is to describe; however, the sample used in this study poses limitations to the generalizability and the data should be viewed with that in mind. However, a convenience sample as used in this study is entirely appropriate for explaining the remainder of the research questions, which seek to link reader characteristics with their desire for information from their local papers. Thus, surveys in which the constructs are defined and measured well are a good method for answering these research questions (Luther, 2009).

Because “survey research involves any procedure that is used to ask questions of respondents” (Luther, 2009, p. 146), this study sought respondents’ self-reported data on attitudes, behaviors and uses. Responses can be analyzed on many levels, categorizing users into types and degrees of mobile news wants and along lines of demographics, using statistical analysis. The researchers sought to create a well-crafted series of questions to elicit sufficient raw data for identifying patterns in participants' responses.

The survey method is acceptable when researchers cannot afford the expense and duration of more cumbersome research methods. The cost of conducting a survey is reasonable when taking into account the amount of information gathered (Wimmer & Dominick, 2006). The relative ease of collecting so much data from a variety of people is attractive because researchers can examine many variables. Surveys allow researchers to investigate attitudes in a true environment, without geographic boundaries. These advantages are particularly strong in Internet surveys. The survey method has been employed in similar studies in the past (Readership Institute, 2001; Pew, 2010) and many of the questions in this study were based on previous research.

However, despite its prevalence, the method does have its disadvantages. The method doesn't allow great depth or complexity in answers from respondents (Wimmer & Dominick, 2006). Surveys also do not allow researchers to establish causality in the relationships between variables because there is little control for intervening variables. Surveys also can be hampered by poor question wording or question order issues. Reaching the target audience also is a challenge. Society is growing increasingly averse to surveys and individuals' unwillingness to participate can result in a low response rate. Also, the Internet survey method leaves out those without

regular Web access. Roughly 74% of Americans have access to the Internet; that figure is only 61% in Alabama (U.S. Census Bureau, 2010). The survey, then, only reached a fraction of the state population in those who had Internet connection to take the online survey.

Population and sample

The theoretical population of this study includes all adult Alabama newspaper readers. Of course, no comprehensive list of this population exists. Even if the researchers were to request subscription data or Web registration data from each newspaper in the state, such a collection of names would not encompass the population of interest as people often share newspapers in a household of several individuals, read the copy of the paper at their workplace or another public location, or buy a paper from a retail outlet or paper box. Also, in the modern news environment, some Internet news consumers receive information online through RSS feeds or news aggregating Web sites and would not be counted in page visits to the news producer's Web site.

Given that there is no way to define the theoretical population, it is not possible to produce a probability sample representative of the entire population (Luther, 2009). Thus, researchers worked from the available population of Alabama newspaper readers who could actually be reached through an online survey. This meant that the inclusion criteria that determined the available population were as follows: Individuals who report reading at least one Alabama newspaper at least periodically, age 19 or older (age that allows individuals to consent to participate in research in Alabama), who are connected to the Internet and came across the survey. Other than the obvious exclusions of minors and individuals without Internet access, the survey also likely was not accessible to those who are unable to read the instructions and invitations to participate, which were all written in English.

Therefore a nonprobability sample was used, gathered both from convenience and snowball sampling techniques. Respondents were contacted through e-mail, Facebook, Twitter and blogs (which fall into the snowball sample category), through posting promotions for the surveys on a number of newspapers' Web sites (which falls into the category of convenience sample), and through paid advertisement on Facebook (also a convenience sample).

To reach a sample of the desired population through online and traditional media, the researchers determined they needed to request newspapers' assistance in accessing their readers online. Their first step was to log-on to the Alabama Press Association Web site to get a list of Alabama newspapers and their publishers. Of the active 123 newspapers (24 dailies and 99 weeklies) that were members of the time, 97 had active Web sites as of February 2010.

Researchers contacted those papers and asked for help in recruiting respondents. The letters, and subsequent e-mails and face-to-face contact made with publishers, editors and their newspaper staff sought to explain the nature and purpose of the survey, as well as the value of the data for the publishers. The researchers asked the newspapers to post links to the surveys on their websites, send notices through social media and possibly even putting a notice in the printed paper (See materials in the Appendix). About 20 papers promoted the survey in some way in March and April 2010.

To reach people who may not regularly visit the newspapers' Web sites or may not have seen the papers' ads or other promotion about the survey, the researchers also employed snowball sampling techniques. The team created a Facebook page titled Alabama Newspaper Reader Project and asked their friends and friends' friends to become fans of the study through the page. Periodic updates were posted to the page wall, which were pushed to the fans' news

feeds on their Facebook homepages. An event was created through which people on Facebook could be invited to "attend," meaning invited to take the survey. Additionally, an advertisement campaign was launched for a three-day period that was targeted at Facebook users age 19 and older who were located in Alabama and were not already connected to the survey's Facebook page. This pool was reported to be more than one million individuals. The final push to increase the number of responses to the survey included e-mail reminders to researchers' contacts and the advertisement campaign on Facebook.

Operationalization of constructs

In surveying Alabama newspaper readers, individual researchers within the team focused on separate variables measured in the study to study them in-depth. This portion of the study was focused on the specific constructs of wants or desires for information from local papers in a mobile environment. Specifically, this paper focuses on the emerging patterns in these desires, of the relationship of demographics to these patterns, and of the relationship of levels of Internet connectivity to the readers' wants in a mobile environment.

Mobile wants

The question of mobile wants was asked in two ways: The first simply asked the respondents to rate how likely or unlikely they would be to download and use a mobile application to access local news, should the Alabama newspaper they identified as reading most often were to offer it. Response options were: Not applicable, Not at all likely, Not likely, Unsure, Likely, Very Likely. Higher numbers represented a higher self-reported likelihood of using a mobile application from that paper.

A second question asked respondents to imagine that the previously identified local newspaper had the mobile application, and to rate how important each of the following types of information would be for them in that environment: Breaking local news, Interactive mapping tools, Traffic updates, Local sports scores, breaking sports news, Weather updates, Blogs from columnists/editors/reporters, In-depth local news stories, Timely special offers from local businesses, and Classified ads from local individuals and companies. Respondents rated the information types from one to five using a Likert-type response format, in which one equaled “not at all important to me” and five equaled “very important to me.” Therefore, higher numbers meant that the respondent saw the information as more important to them in a mobile delivery environment for their local paper.

The categories of content that respondents were asked about reflect the classifications of content traditionally found in a local newspaper and its website (advertisements, classifieds, blogs from columnists/editors/reporters, in-depth local news stories) and information traditionally delivered by other types of local news outlets, such a television and radio (traffic and weather updates, breaking news, breaking sports news). Researchers also asked about new content specific to the Web and to mobile devices (interactive mapping tools). Similar categories were used in the "The Power to Grow Readership" report (Readership Institute, 2001).

Connectivity

Respondents were then asked to identify the means in which they connect to the Internet on a regular basis, ranging from at home, at work or school, from a public computer (i.e. local library), by cell phone or another mobile device. They were given the option to check all that applied.

Demographics

In addition to classifying the respondents according to connectivity, the questionnaire gathered data to analyze them along demographic lines, including age, gender, race, hometown size, education level and socioeconomic status.

The survey questionnaire was designed as follows: Respondents identified their gender. For their age group by choosing from one of five categories, with the lowest being ages 19-25 and the highest ranging from age 65 and up, based on the age groups used in similar studies including a news audience study in 2008 by the Pew Research Center for People and the Press (Pew, 2008).

Race classifications were borrowed from the seven primary ethnic categories used in the United States Census. Respondents were then asked to provide information about where they live, first by selecting one of 67 Alabama counties and then describing the size of their hometown, with four options ranging from rural area to large urban city. They were also asked to report their highest level of education attained out of six options ranging from some or no high school up to an advanced degree (Pew, 2010), asked to indicate their profession and asked to describe their current household economic status (five options ranging from lower-income to higher-income). The class categories may be clustered into three categories (low, middle and high).

Survey design and implementation

The survey was created first by designing the questionnaire to accurately measure the constructs with clear, well-defined response formats. The questionnaire was then posted on the

popular online survey software Web site SurveyMonkey.com. The survey was first pilot tested on a small group of graduate students, followed by a larger test run on a group of undergraduate students from the University of Alabama's College of Communications and Information Sciences.

After clicking on the link to the survey, participants arrived at the survey welcome page, which covered the informed consent requirements of the Institutional Review Board to protect the rights of human subjects participating in the research project. There were four additional pages with 17 numbered questions, some of which contained a subset of several questions. The main points of the survey identified the respondents' Alabama local newspaper, their opinions of and attitudes toward this news source, their preferences and interests in content types delivered in a mobile setting, their perceptions of credibility, their access to and usage of news sources other than the newspaper they identified, their connectivity to the Internet, and their demographic data.

The official launch date of the survey was March 15 and the original end date was March 31, although this time frame was eventually extended to reach the target number of 1,000 responses. The survey closed on April 18.

Results

In total 1,046 respondents completed enough of the survey to be used for meaningful data analysis as of the survey closing date of April 18, 2010. Not every respondent filled out all demographic questions, so the percentages below representing the demographics of the sample

are based on the valid answers for each question, which in every case is below the 1,046 total surveys.

Of the 952 respondents who reported their age, most were either in the age ranges of 35-49 (N = 251, 26.4% of the valid responses) or 50-64 (N = 269, 28.3%). Because we recruited some college students, the next largest age category was 19-24 (M = 191, 20.1%), followed by those 65 and older (N = 105, 11.0%). The remaining 135 (14.2%) were between ages 25 and 34.

Respondents were evenly split by gender, with 446 men (51.0% of those who indicated a gender) and 429 women (49.0%). For ethnicity, respondents could check all that applied, meaning the percentages add up to more than 100%. The vast majority of the sample indicated that they were White (91.4%), while only a few identified as African American (7.0%), Native American (1.9%), Hispanic or Latino (1.5%), Asian-American (1.2%), and Pacific Islander (0.3%).

Most reported living in mid-sized communities (49.5%), followed by small communities (20.2%), large urban areas (17.0%) and rural areas (13.3%). In terms of economic status, the majority identified themselves as middle class (45.7%), while a third reported being upper middle class or upper class (33.3%) and a fifth reported being lower middle class or lower class (21.0%). Finally, two thirds of the sample had an undergraduate degree or higher. Of the 962 who indicated an education level, 30.4% had earned an undergraduate degree, 9.4% had done additional graduate work but not earned an advanced degree, and 24.0% had an advanced degree. Another 29.8% had done college undergraduate work but not completed a degree. This number likely was influenced by the college student recruits in the sample. Only 6.4% said they had not at least attended college. Overall, the sample had relatively high levels of education.

While these demographics do not mirror those of Alabama as a whole, they likely are similar to the demographics of Alabama's newspaper readers, especially those who can be reached through an online mail survey. Still, caution should be exercised in trying to generalize descriptive data in the survey to all Alabama newspaper readers. Further, the relational analyses done below should be viewed in light of the demographics of this convenience sample.

Research Question 1: What information from their local newspaper would Alabama newspaper readers most like to see delivered online or through a mobile application?

To answer this question, descriptive statistics were run on importance scores nine types of information. Higher scores indicate a stronger desire for the audience to have this information provided by their local paper in an online or mobile environment. As Table 1 shows, the breaking local news delivery was rated as most important in this environment, followed by weather updates and in-depth local news. Classified advertising was seen as least important.

Table 1 shows that not only did breaking local news receive the highest overall average rating of the nine items, more than half of the respondents who answered the question rated it as "very important" to them. A third rated weather as "very important," while less than a quarter of respondents said in-depth local news was "very important." Only three types of information (breaking local news, weather updates, and in-depth local news) were rated above the neutral mid-point of three on a 1-5 response format.

Table 1:

Importance scores for local information delivered online or through mobile, ranked from most important to least important

Information	Mean	% rating as very important
Breaking local news	4.06	50.5%
Weather updates	3.75	34.1%
In-depth local news	3.32	22.2%
Local sports scores and news	2.86	18.1%
Traffic updates	2.85	16.9%
Timely offers from local businesses	2.51	7.4%
Interactive maps	2.47	9.4%
Blogs	2.31	5.8%
Classified advertising	2.15	5.4%

It should be noted that these descriptive statistics should not be generalized to all Alabama newspaper readers because of the use of a convenience sample. However, because the sample was reached online and through social media, they likely are close to the type of reader who would most likely to read news online and in a mobile environment. Therefore, the findings should be informative to local newspapers seeking to deliver news in new ways.

Research Question 2: What patterns emerge in desire for information from local newspapers delivered online or through a mobile application?

To answer this question, factor analyses using a Varimax rotation were run on the nine items to see which items grouped together in terms of the “wants” of users in a mobile environment. Two distinct factors emerged. The first factor contained five types of information not traditionally offered by local newspapers in a print format – breaking local news, weather updates, interactive mapping, traffic updates, and breaking sports scores (Eigenvalue = 3.83, explaining 42.60% of the variance). The second factor, a weak grouping, contained more traditional print/Web newspaper types of information – in-depth local news, blogs (opinion about community issues), special offers from local businesses (display ads) and classified advertising (Eigenvalue = 1.01, explaining 12.23% of the variance).

This finding indicates that respondents differentiated between the more traditional type of information they see from local newspapers and their websites and the “non-traditional” or new types of information that are possible from a local provider in the mobile delivery environment.

Research Question 3: Which demographic variables are related to a stronger desire for “non-traditional” information from a local newspaper in an online or mobile environment?

To answer this question, first a score was computed by averaging the five non-traditional items that grouped together in RQ2. Again, this score could range from 1 to 5 with 5 indicating that all of these items were rated as “very important.” Total scores were computed for 985 respondents who answered each of the five items. Scores ranged from 1 to 5 with a mean of 3.20 (sd = .96). Next, the relationship between this score and demographics (age, income, education, gender, ethnicity, size of community) was explored through a regression analysis. A significant model emerged ($F = 4.98$, $df = 6, 830$, $p < .001$, $r^2 = .035$). Only two of the six demographic variables – age and economic status – were significantly related to variation in the “non-

traditional” information importance score. Age (Beta = $-.155$, $p < .001$) was negatively related to this score, indicating that as people reported being older, the importance they placed on getting this non-traditional information decreased. Conversely, younger people placed greater importance on non-traditional newspaper content in a mobile environment. For economic status, (Beta = $.08$, $p < .04$), as reported economic status went up, so did the importance placed on this type of information. Therefore, those who viewed themselves as being in the local economic sectors of U.S. society placed less importance on getting this non-traditional information in a mobile environment. No other demographic variable was a significant predictor variable for desire for “non-traditional” types of information from their local newspaper.

Research Question 4: How is internet connectivity related to the importance placed on non-traditional print information score?

To answer this question, those who connected to the Internet through their mobile phones were compared with those who didn’t have mobile Web on their ratings of the nine types of information possible in a mobile environment. T-tests to compare mean scores by group were run. The results show that there are significant differences between respondents who reported connecting to the Internet with their cell phones and those who reported not connecting in this way in the importance they placed on several types of information. As Table 2 shows, those who use their phones to connect with the Internet placed greater importance on getting breaking local news, interactive maps, traffic updates, sports scores and news, and weather updates from their newspaper in a mobile environment. For the other types of information, no statistically significant differences were found. It is interesting to note that the types of information that the mobile Web users and non-mobile Web users differed on were information not traditionally

provided by a print newspaper. In fact, these are many things that local radio and television news outlets are known for. To examine this further, the scores on these five “non-traditional (at least for print newspaper) information items” were averaged to come up with a “non-traditional information importance score” for each user. The last row of Table 2 shows the large difference between mobile Web users and non-mobile Web users on this score. In other words, possessing and accessing connectivity to the Internet through a cell phone is a predictor of a higher score (and thus a stronger desire) for non-traditional information from the local newspaper in a mobile environment.

Table 2:

Significant differences in importance scores for types of information delivered in a mobile environment by mobile Web use

Importance score	Mobile Web users	Non-mobile Web users	Difference (t =)
Breaking local news	4.35	3.87	6.16***
Interactive maps	2.67	2.33	3.98***
Traffic updates	3.03	2.73	3.22***
Local sports updates	3.17	2.64	5.52***
Weather updates	3.86	3.68	2.16*
Non-traditional information ave.	3.42	3.05	6.06***

* p < .05, *** p < .001

To compare whether readers who preferred to get news from the local newspaper company through the printed paper, the newspaper’s Web site, or alternate delivery methods (Facebook, e-mail, etc.) differed on their reported importance placed on “non-traditional”

information in a mobile environment, a one way Analysis of Variance (ANOVA) was run. The readers were compared on their average importance score for non-traditional information score (that number in the last row in Table 2). A statistically significant difference emerged based on the preferred way of connecting with the local newspaper. Readers who preferred to get their local news on mobile devices and through Twitter rated getting non-traditional news in a mobile environment as significantly higher in importance ($m = 3.68$ and $m = 3.59$, respectively) than those who preferred to get their news from the printed newspaper ($m = 3.04$) and from RSS ($m = 3.05$). Those who preferred the website ($m = 3.32$), e-mail alerts ($m = 3.36$), and Facebook ($m = 3.13$) fell in the middle of these two extremes ($F = 5.498$, $df = 6$, 966 $p < .001$).

Overall, the data present a picture of the shifting news appetites in consumers who have access to mobile communications devices. What respondents want from their local newspaper is most associated with the TV news model. Five non-traditional print news information types appeared in a pattern of “new journalism” wants. The respondents who gave these responses generally had higher income, were younger, and already connected to the Internet by mobile devices.

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Appendix

Suggested text sent to the newspapers included the following:

Suggested Tweet: How do you want important local news to reach you? Take this [5-minute survey](#) from the UA Journalism Dept. to help us better serve you.

Suggested e-mail blast, Facebook post, or text for the printed paper: We know you have thoughts on how we bring you local news, and we want to hear them. Please take this [5-minute survey](#) from the University of Alabama Journalism Department to let us know how you like to get local information from your newspaper. We want to know how we can best reach you, whether you're holding the newspaper at the breakfast table, surfing the Web at your office or on the go with your mobile device. All responses are strictly confidential. We are not collecting any information about you that will ever be shared for marketing purposes. Please forward this announcement to your friends and colleagues; we'd love to hear their opinions, too.

For the print announcement, the full text address can be inserted instead of the hyperlink.

Graphics with text and images, designed to be placed on the Web sites as an option for the newspapers to advertise the survey, were sent electronically to the researchers' contacts at the newspaper. The following are two examples of the graphics.

