

## Reality Check

Hsiang Iris Chyi & Ori Tenenboim

To cite this article: Hsiang Iris Chyi & Ori Tenenboim (2016): Reality Check, Journalism Practice, DOI: [10.1080/17512786.2016.1208056](https://doi.org/10.1080/17512786.2016.1208056)

To link to this article: <http://dx.doi.org/10.1080/17512786.2016.1208056>



Published online: 27 Jul 2016.



Submit your article to this journal [↗](#)



Article views: 6213



View related articles [↗](#)



View Crossmark data [↗](#)

# REALITY CHECK

## Multiplatform newspaper readership in the United States, 2007–2015

**Hsiang Iris Chyi and Ori Tenenboim**

*Twenty years into US newspapers' online ventures, many are stuck between a shrinking market for their print product and an unsuccessful experiment with digital offerings. Since readership is the foundation for subscription and advertising revenue, this study, through a longitudinal analysis of readership data (2007, 2011, and 2015) of 51 US newspapers, provides an up-to-date review on these newspapers' online and print readership. Results indicated that the (supposedly dying) print product still reaches far more readers than the (supposedly promising) digital product in these newspapers' home markets, and this holds true across all age groups. In addition, these major newspapers' online readership has shown little or no growth since 2007, and more than a half of them have seen a decline since 2011. The online edition contributes a relatively small number of online-only users to the combined readership in these newspapers' home markets. These findings raise questions about US newspapers' technology-driven strategy and call for a critical re-examination of unchecked assumptions about the future of newspapers.*

**KEYWORDS** audience measurement; digital journalism; newspaper; online news; print newspaper; readership; Scarborough

### Introduction

The Web has been publicly available for more than 20 years, and US newspapers' experiment with this particular platform has been going on for nearly as long. Motivated initially by high hopes for the potential of the internet, newspaper firms have expended substantial resources digitizing and distributing their content through a multitude of channels.

Underlying newspapers' sustained enthusiasm for a digital future is a long-time (yet unchecked) assumption that print newspapers are dying (Chyi, Lewis, and Zheng 2012; Penenberg 2004; Picard and Brody 1997); the recent recession, which accelerated declines in print circulation and advertising revenue, reinforced such a belief. It is against this backdrop that US newspapers, especially national and metro dailies, became more determined than ever to complete their transition from print to online—by slashing resources for the print edition, laying off print staff, and reducing printing and delivery schedules while expanding digital operations, hiring multimedia reporters and social media editors, and requiring all journalists to reinvent themselves digitally. “Digital first” has become a mantra, a trend, and a strategy leading to the future (Paton 2010).

However, amid early excitement and recent determination about an all-digital future for news, a long-time problem facing a vast majority of newspaper firms persists—digital revenue remains insufficient to cover the loss on print revenue (Pew Research Center

2015). Industry discourse often focuses on the loss on the print side without critically examining the performance of the digital products, framing the problem as “newspapers have not yet figured out how to monetize online news users,” implying that a solution will emerge in the future (Chyi 2013). However, to this date, the performance of newspapers’ digital products in terms of advertising and subscription revenue has remained underwhelming. The result of newspaper firms’ transition from print to online is, in the business sense, “exchanging analog dollars for digital dimes” (quoted in Dick 2009, para. 1).

Economic reasoning suggests that at least part of the difficulty in monetizing digital content lies in readership, which is the foundation for subscription and advertising revenue. Therefore, this study, through a comparative analysis of longitudinal readership data (2007, 2011, and 2015) of 51 US newspapers, seeks to provide an up-to-date review on major newspapers’ online and print readership. Twenty years into their experiment with the Web, it is time to scrutinize demand for newspapers’ digital offerings, to challenge newspaper firms’ technology-driven strategy, and to critically examine unchecked assumptions about the future of newspapers.

### Growth of Online News Access

Online news use, like all things digital, has been growing. In 1995, roughly 2 percent of American adults reported getting news online three days a week or more. By 2010, about half (46 percent) did so. That was the year remembered as when “Web tops newspapers as news source for first time” (Olivarez-Giles 2011), or “Online news readership overtakes newspapers” (Choney 2011), because the State of the News Media report announced that “[f]or the first time ... more people said they got news from the web than newspapers” (Rosenstiel and Mitchell 2011, para. 11). Newspaper managers often interpret such statements as a sign of encouragement for their digital endeavors. What is often neglected, however, is that when users seek news online, many flock to online news aggregators such as Yahoo News, as opposed to newspaper sites.

For example, the Pew Research Center reported that the most frequently visited news sites in 2006 were MSNBC (31 percent), Yahoo (23 percent), CNN.com (23 percent), Google (9 percent), AOL (8 percent), and FoxNews.com (8 percent)—none of which was affiliated with a newspaper. The most visited newspaper sites were NYTimes.com and USAToday.com—each mentioned by 5 percent of online news users (Pew Research Center for the People & the Press 2006). In 2008, Yahoo became the leading news site. In 2012, Yahoo remained the top online news destination (26 percent), while 17 percent named Google or Google News, 14 percent CNN, 13 percent local news sites, and 11 percent MSN. Only 5 percent named *The New York Times*, and 2 percent named *The Wall Street Journal*, *USA Today*, or *The Washington Post* (Pew Research Center for the People & the Press 2012).

The dominance of online news aggregators is also seen at the local level. In 2006, Yahoo News was the number 1 news site in 53 of the Top 100 local markets where comScore Media Metrix collects usage data, followed by MSNBC (20), AOL News (14), and local newspaper sites (11). Among the top 67 local newspapers in the United States (with circulation of 100,000 or above), only 13 were the number 1 online news destination in their local market (Chyi and Lewis 2009). Overshadowed by the dominance of online news aggregators during the past decade, most US newspapers did not give up on developing their own digital products.

## The Transition from Print to Online

A major driver behind the industry-wide digital experiment is the “newspapers are dying” assumption. Indeed, newspaper penetration has declined steadily at 1–2 percent each year since 1950 (Picard and Brody 1997; Picard 2008), and print circulation has been declining since 1987 (weekday) and 1993 (Sunday) despite a growing population (Newspaper Association of America 2012). In 2008, the recession hit and the quickened declines in print circulation and advertising revenue provided further support for the “newspapers are dying” narrative. Driven primarily by fear and uncertainties, newspaper firms addressed their financial woes by slashing resources for their print edition to continue their incomplete transition online.

According to Paper Cuts (2013), a website that tallies US newspaper layoffs and buyouts, in 2008 nearly 16,000 newspaper jobs disappeared. By the end of 2009, nearly 15,000 more newspaper employees had lost their jobs. By 2012, the number of full-time professional editorial employees hit 38,000, a record low since 1978 (Guskin 2013). To reduce the cost further, many newspapers, including *The New York Times*, reduced pages or dropped sections from the paper (Pérez-Peña 2008); others, such as *Detroit Free Press*, *The Detroit News*, and the *New Orleans Times-Picayune*, eliminated home-delivery on certain days of the week. To reduce reliance on print advertising, many implemented significant price hikes on their print product. *The Dallas Morning News*, for example, raised its seven-day home delivery rate from \$21 to \$30 and then to \$33.95 per month (Case 2009). Many more papers followed suit.

Despite dwindled resources, newspapers continued expanding their digital offering, managing a cross-media product portfolio that includes print, Web, e-readers, smartphones, tablets, and social media, and emphasizing multimedia content such as photos, audio, and video.

## Digital Revenue: Advertising and Subscription

Despite all the efforts to make digital work, the business prospect of newspapers’ online editions remains underwhelming. In terms of advertising revenue, analysts estimated that it would take several dozen or even more online readers to substitute for the loss of a single reader of the print edition (Brook 2006; Patterson 2007). In reality, US newspapers’ print advertising revenue dropped from \$22.8 billion to \$16.4 billion from 2010 to 2014; digital advertising revenue increased from \$3 billion to \$3.5 billion in the same period. Despite substantial declines on the print side—the dead-tree edition remains the cash cow, generating 82 percent of total advertising revenue (Pew Research Center 2015).

Another revenue source is online subscription. After offering online news for free for well over a decade, the industry implemented “paywalls” in an attempt to boost online revenue. In March 2011, *The Dallas Morning News* started charging \$16.95 a month for a digital package that includes Web and apps, known as a “hard paywall” (Doctor 2011). A few weeks later, *The New York Times* implemented a metered model, or a “soft paywall,” requiring online users who view more than 20 articles (reduced to 10 in April 2012) per month to pay \$15, \$20, or \$35 a month (Sulzberger 2011). By 2015, more than 450 newspapers charged for online content (News & Tech 2015).

The results of newspapers’ paywall experiments are not always accessible (Myllylahti 2013). But *The New York Times*’ metered model seems to yield the best results, attaining

1,041,000 paid digital-only subscribers by the end of the third quarter of 2015 (The New York Times Company 2015). Yet *The New York Times*, operating at the national and international levels, is by no means a typical US newspaper. In other cases, the results are not nearly as promising. According to the Newspaper Association of America (2013), which released an industry-wide revenue profile, digital-only circulation revenue accounted for only 1 percent of total circulation revenue in 2012. In 2013, subscription rates for most local newspaper sites were estimated to be in the single digits. Gannett's 81 local dailies, for example, attained merely 65,000 digital-only subscribers as of June 2013 (Mutter 2013). Some papers (e.g., *The Dallas Morning News* and *San Francisco Chronicle*) have dropped their paywalls.

In sum, despite the industry's focus on digital, US newspapers' online offerings generate only limited advertising and subscription revenue. In contrast, their weakening print product remains the primary revenue driver. This raised questions about the size and composition of newspapers' online (and print) readership, because a healthy audience base should bring in healthy subscription and advertising revenue. To tackle the mystery behind "analog dollars" and "digital dimes," this study seeks to scrutinize major newspapers' online and print reader base.

### Audience Measurement for Newspapers

Audience measurement is of paramount importance to media industries because it carries profound, sometimes unappreciated consequences, and ultimately may change content itself (Webster 2014). Facing existential challenges in recent years, the US newspaper industry has made substantial changes to existing audience measures, which creates problems for longitudinal analysis of baseline data (Pew Research Center 2015).

For example, while circulation is the most-watched indicator of demand for print newspapers, and circulation decline is often cited as evidence supporting the "the internet is killing newspapers" narrative, the Alliance for Audited Media (AAM), formerly the Audit Bureau of Circulations (ABC), has in recent years changed how circulation is measured (Mutter 2010). The inclusion of "branded editions" and traffic from free mobile apps made year-to-year comparisons impossible (Pew Research Center 2015).

On the digital side, the newspaper industry often publicizes "unique visitors" figures. Research firms such as Nielsen/NetRatings and comScore Media Metrix collect such data through tracking software installed on a national panel of internet users who chose to participate. Publishers may also collect their own "unique visitors" data through Google Analytics. Many factors influence the accuracy of such data, even when major research providers are involved (Gordon 2007; Thurman 2014). The number of unique visitors for newspaper sites often seems sizable because data are usually reported monthly (whereas print circulation is reported daily). In addition, this metric as an aggregate measure does not distinguish repeated users from one-time visitors (e.g., those coming from search engines or social networking sites). The 2015 State of the News Media report used such data to generate the list of the Top 50 news sites and acknowledged that many of these unique visitors were flybys as opposed to regular visitors (Pew Research Center 2015). Nevertheless, inflated audience size serves as a great sales pitch, which explains the popularity of this particular measure in industry discourse (Zheng, Chyi, and Kaufhold 2012).

Another indicator of newspaper demand is “readership.” Print readership is the number of adults who have read or looked into a print newspaper during a specific time-frame (e.g., one week or one month); online readership is the number of adults who have visited a newspaper site (Newspaper Association of America 2015). The newly introduced “net combined online and print audience” metric emphasizes newspapers’ overall multiplatform reach (Project for Excellence in Journalism 2006).

Scarborough Research (now Nielsen Scarborough), a long-time provider of media use and consumer information in the United States, collects readership data (for print and online editions) through random-sample telephone interviews of adults age 18 or older<sup>1</sup> in a large number of Designated Market Areas (DMAs).<sup>2</sup> Although such data are collected in the local market and thus do not include out-of-market readership, this metric allows for side-by-side comparisons between a newspaper’s print and online demand in its home market. Therefore, this study, through analyzing readership data, seeks to examine user demand for major US newspapers’ print and digital offerings.

### Demand for Multiplatform Newspapers

For multiplatform media firms, understanding user demand for different product offerings helps identify which product is the “cash cow” and which is the “problem child” (Picard 2003, 2005). Through enumerating demand for individual newspapers’ online and print products in a well-defined geographic market, a number of studies have identified consistent patterns characterizing consumer demand for online and print products under one newspaper brand (Chyi 2006; Chyi and Huang 2011; Chyi and Lasorsa 1999, 2002; Hargrove, Miller, and Stempel 2011), which were theorized as:

$$\frac{\text{Online Edition Readers}}{\text{GP or WU}} < \frac{\text{Print Edition Readers}}{\text{GP or WU}} < \frac{\text{Hybrid Readers}}{\text{Online Edition Readers}} > 50 \text{ percent}$$

where GP represents the general public, WU are Web users, and hybrid readers are online edition readers who also read the print edition.

These relationships suggest that, within the local market: (1) a local newspaper’s print penetration is higher than its online penetration—that is, print readers outnumber online readers; (2) compared with the general public, readers of the online edition are more, not less, likely to read the same newspaper’s print edition; (3) the majority of a newspaper’s online readers also read its print edition—that is, hybrid readers outnumber online-only readers.

Drawing on these research findings, this study seeks to examine user demand for major US newspapers’ online and print editions, proposing six research questions. The first addresses the size of print and online readership in the local market:

**RQ1:** Which product—print or online—reaches more readers in a newspaper’s DMA market?

Also of interest is how demand for print and online editions changes over time. As noted previously, print circulation has been decreasing (Newspaper Association of America 2012), but the changes in print and online readership have not received as much attention.

**RQ2:** To what extent has print readership changed over time?

**RQ3:** To what extent has online readership changed over time?

Within a local market, residents have access to the local newspaper in print and online formats. Among local readers, one may further distinguish: (1) print-only readers; (2) online-only readers; and (3) hybrid readers, who access their local paper in both print and online formats. Print-only readers are traditionalists. Online-only readers represent an audience segment contributed uniquely by digital products, while hybrid readers are those who read the online edition but still hang on to the legacy product.

**RQ4:** What is the composition of the net combined readership—print-only, hybrid, and online-only? To what extent has the composition changed over time?

There used to be two schools of thought regarding how a newspaper's digital edition relates to its legacy product—cannibalization or complementation. Several studies (Chyi 2006; Chyi and Huang 2011; Chyi and Lasorsa 1999, 2002; Hargrove, Miller, and Stempel 2011) revealed that, compared with the general public, readers of the online edition were more, not less, likely to read the same newspaper's print edition. In addition, when the paper was the leading newspaper in the market, it was found that the majority of readers of the online edition still hang on to its print counterpart—in other words, hybrid readers outnumbered online-only readers.

**RQ5:** Compared with the general public, are readers of the online edition more likely to read the same newspaper's print edition? Do hybrid readers outnumber online-only readers?

Finally, a major driver behind newspaper firms' digital transformation is to pursue young readers (Graybeal 2011). Twenty years into the experiment, this study seeks to examine the effectiveness of US newspapers' digital strategy in attaining the youth. Compared with print readership, to what extent is online readership younger? Which format—print or online—reaches more readers within each age group?

**RQ6:** What is the online and print reach among different age groups?

## Method

To examine user demand of US newspapers' print and online products, this study analyzes 51 US newspapers' readership data collected by Scarborough in 2007, 2011, and 2015.

### *Sample*

According to the 2015 Editor & Publisher *Newspaper Databook*, 1331 daily newspapers currently operate in the United States, the total weekday circulation of which is 40.4 million (Editor & Publisher 2015). To include major daily newspapers in the analysis, the study selected all newspapers with daily (Monday to Friday) circulations of more than 120,000. A total of 64 newspapers reached the threshold, of which 13 were excluded from the sample because their readership data were not completely available in the AAM-Nielsen Local audience summary database. The final sample consists of 51 metro daily newspapers, the largest of which is *The Orange County Register* (California) with a

daily circulation of 793,582, and the smallest is *The Hartford Courant* (Connecticut) with a circulation of 120,473.

### *Data Sources*

Print and online newspaper readership data collected in 2007 and 2011 by Scarborough were retrieved from the AAM's "Audience Snapshot+" tool.<sup>3</sup> These data were released on September 30 of the respective year, covering the six preceding months. The 2015 data were retrieved from the AAM Media Intelligence Center,<sup>4</sup> covering the third quarter of 2015. Data retrieved were seven-day in-market (1) print readership, (2) online readership, and (3) net combined readership, as well as percentages of reach for each of the three.<sup>5</sup> The earliest data available in the databases were collected in 2007, and the latest were from 2015, with 2011 being the mid-point of the two.

Seven-day print and online readership data among five different age groups (18–24, 25–34, 35–44, 45–54, and 55+) were retrieved from the AAM-Nielsen Local audience summary database (or "Audience Snapshot").<sup>6</sup> These data were released by Scarborough in 2015.

### *Data Analysis*

To address RQ1, comparative analysis was conducted using the 2015 online and print readership data across all 51 newspapers under study. To address RQ2 and RQ3, the analysis tracked readership data collected in 2007, 2011, and 2015 for print and online, respectively. To address RQ4, print-only readership was calculated by subtracting online readership from combined readership. Online-only readership was calculated by subtracting print readership from combined readership. Hybrid (both print and online) readership was calculated by subtracting print-only readership from print readership. The analysis tracked the changes in composition using data collected in 2007, 2011, and 2015. To address RQ5, online readers' propensity of reading the print edition is calculated by dividing the number of hybrid readers by the number of total online edition readers (hybrid plus online-only). The general public's propensity of reading the print edition is simply print reach. To address RQ6, online and print readership data among five different age groups were compared.

## **Results**

RQ1 asked which product—print or online—reaches more readers in a newspaper's DMA market. [Table 1](#) presents 2015 readership data of the 51 newspapers under study—including the number of online and print readers, as well as the percent reach for each. In each and every one of the 51 cases, print readership outnumbers online readership by a wide margin. On average, the print edition reaches 28.8 percent of local adults; the online edition reaches 10 percent. In other words, the print edition is the most read product in all these major newspapers' home markets.

RQ2 asked to what extent print readership has changed over time. [Table 2](#) lists the percent reach of the print edition for each newspaper in 2007, 2011, and 2015. As expected, print readership declined through the years. The average reach dropped from 42.4 percent in 2007, 35.9 percent in 2011, to 28.8 percent in 2015. The decline amounts



**TABLE 1**

In-market print and online readership/reach, 2015

State / newspaper	Weekday circulation <sup>a</sup>	Print readership <sup>b</sup>	Print reach <sup>b</sup> (%)	Online readership <sup>b</sup>	Online reach <sup>b</sup> (%)
California / <i>The Orange County Register</i>	793,582	1,096,503	8	415,414	3
California / <i>Los Angeles Times</i>	717,432	3,328,388	24	1,502,302	11
Florida / <i>The News-Press</i>	601,697	274,641	27	57,713	6
California / <i>San Jose Mercury News</i>	581,546	1,828,706	32	633,977	11
New York / <i>Newsday</i>	460,149	1,727,648	10	583,108	4
New York / <i>New York Daily News</i>	456,360	3,293,146	20	853,669	5
Illinois / <i>Chicago Tribune</i>	438,935	2,411,373	33	883,485	12
Washington, DC / <i>The Washington Post</i>	436,601	2,131,608	41	1,075,807	21
Texas / <i>The Dallas Morning News</i>	413,481	1,361,341	25	416,763	8
Colorado / <i>The Denver Post</i>	391,096	1,016,547	31	322,225	10
Pennsylvania / <i>The Philadelphia Inquirer</i>	373,479	1,394,400	22	458,441	7
Texas / <i>Houston Chronicle</i>	370,961	1,587,093	32	500,424	10
Illinois / <i>Chicago Sun-Times</i>	370,449	1,693,644	23	451,538	6
Nevada / <i>Las Vegas Review-Journal</i>	322,556	571,947	36	169,738	11
Florida / <i>Tampa Bay Times</i>	317,270	1,097,400	30	175,152	5
Minnesota / <i>Star Tribune</i>	301,494	1,481,656	42	466,800	13
New Jersey / <i>The Star-Ledger</i>	296,466	1,203,064	7	940,220	6
Ohio / <i>The Plain Dealer</i>	284,850	931,483	31	334,573	11
Massachusetts / <i>The Boston Globe</i>	274,538	1,292,997	25	842,798	16
Hawaii / <i>Honolulu Star-Advertiser</i>	272,856	556,996	50	122,294	11
Oregon / <i>The Oregonian</i>	263,726	807,434	32	440,753	18
Washington / <i>The Seattle Times</i>	261,441	1,201,321	31	522,633	13
Arizona / <i>The Arizona Republic</i>	261,174	1,282,828	33	641,452	16
Georgia / <i>Atlanta Journal-Constitution</i>	257,135	1,261,091	25	748,534	15
California / <i>U-T San Diego</i>	254,238	916,212	37	271,819	11
Minnesota / <i>St. Paul Pioneer Press</i>	239,968	698,848	20	189,771	5
Michigan / <i>Detroit Free Press</i>	216,269	1,337,559	36	512,932	14
California / <i>San Francisco Chronicle</i>	211,777	1,098,968	19	725,017	13
Pennsylvania / <i>Tribune-Review</i>	199,182	724,128	32	173,449	8
Wisconsin / <i>Milwaukee Journal Sentinel</i>	192,667	753,384	42	273,950	15
California / <i>The Sacramento Bee</i>	191,608	770,680	24	256,850	8

Missouri / <i>St. Louis Post-Dispatch</i>	186,820	933,935	38	354,057	14
Florida / <i>The Tampa Tribune</i>	181,589	705,802	20	206,509	6
Missouri / <i>The Kansas City Star</i>	175,833	722,333	39	211,196	11
Texas / <i>Fort Worth Star-Telegram</i>	173,833	798,304	15	388,135	7
Florida / <i>Orlando Sentinel</i>	173,542	882,172	28	275,950	9
Florida / <i>South Florida Sun-Sentinel</i>	162,721	687,846	19	201,277	6
Texas / <i>San Antonio Express-News</i>	160,545	783,880	40	279,587	14
Pennsylvania / <i>Pittsburgh Post-Gazette</i>	155,700	635,753	28	216,383	9
Arkansas / <i>Arkansas Democrat-Gazette</i>	147,467	511,356	45	63,889	6
Florida / <i>The Miami Herald</i>	141,188	943,478	26	281,286	8
Indiana / <i>The Indianapolis Star</i>	140,343	747,841	33	243,426	11
Utah / <i>Deseret News</i>	139,101	348,975	16	241,404	11
Ohio / <i>The Columbus Dispatch</i>	134,854	708,687	38	180,912	10
Texas / <i>Austin American-Statesman</i>	133,687	622,672	40	255,751	16
North Carolina / <i>The Charlotte Observer</i>	131,254	679,980	29	231,627	10
Virginia / <i>The Virginian-Pilot</i>	126,053	554,200	37	205,037	14
California / <i>The Press-Enterprise</i>	124,051	572,889	4	196,037	1
North Carolina / <i>The News &amp; Observer</i>	121,441	559,487	24	196,447	8
Kentucky / <i>The Courier-Journal</i>	120,739	619,026	46	116,884	9
Connecticut / <i>The Hartford Courant</i>	120,473	591,431	28	168,235	8
Mean	274,043	1,073,394	28.8	401,522	10.0

<sup>a</sup>Source: 2014 Monday to Friday circulation data from the 2015 Editor & Publisher *Newspaper Databook* (Editor & Publisher 2015).

<sup>b</sup>Source: Scarborough, third quarter, 2015, seven-day in-market DMA print and online readership data.

**TABLE 2**

In-market print and online reach, 2007–2015 (%)

State / newspaper	Print reach			Online reach		
	2007	2011	2015	2007	2011	2015
California / <i>The Orange County Register</i>	11	9	8	2	4	3
California / <i>Los Angeles Times</i>	34	29	24	6	8	11
Florida / <i>The News-Press</i>	40	32	27	8	7	6
California / <i>San Jose Mercury News</i>	n/a	39	32	n/a	12	11
New York / <i>Newsday</i>	15	13	10	3	4	4
New York / <i>New York Daily News</i>	29	26	20	3	3	5
Illinois / <i>Chicago Tribune</i>	46	34	33	10	10	12
Washington, DC / <i>The Washington Post</i>	61	54	41	21	21	21
Texas / <i>The Dallas Morning News</i>	41	31	25	8	9	8
Colorado / <i>The Denver Post</i>	51	n/a	31	7	n/a	10
Pennsylvania / <i>The Philadelphia Inquirer</i>	36	27	22	5	7	7
Texas / <i>Houston Chronicle</i>	52	43	32	10	14	10
Illinois / <i>Chicago Sun-Times</i>	n/a	42	23	n/a	7	6
Nevada / <i>Las Vegas Review-Journal</i>	n/a	45	36	n/a	11	11
Florida / <i>Tampa Bay Times</i>	34	34	30	6	6	5
Minnesota / <i>Star Tribune</i>	53	45	42	12	13	13
New Jersey / <i>The Star-Ledger</i>	12	10	7	3	5	6
Ohio / <i>The Plain Dealer</i>	47	40	31	8	13	11
Massachusetts / <i>The Boston Globe</i>	40	29	25	16	20	16
Hawaii / <i>Honolulu Star-Advertiser</i>	62	53	50	11	16	11
Oregon / <i>The Oregonian</i>	54	47	32	10	13	18
Washington / <i>The Seattle Times</i>	44	34	31	14	16	13
Arizona / <i>The Arizona Republic</i>	52	44	33	18	17	16
Georgia / <i>Atlanta Journal-Constitution</i>	47	35	25	18	17	15
California / <i>U-T San Diego</i>	55	44	37	17	16	11
Minnesota / <i>St. Paul Pioneer Press</i>	28	24	20	6	5	5
Michigan / <i>Detroit Free Press</i>	49	40	36	10	12	14
California / <i>San Francisco Chronicle</i>	32	24	19	10	14	13
Pennsylvania / <i>Tribune-Review</i>	29	31	32	5	6	8
Wisconsin / <i>Milwaukee Journal Sentinel</i>	65	56	42	15	16	15
California / <i>The Sacramento Bee</i>	36	30	24	8	9	8
Missouri / <i>St. Louis Post-Dispatch</i>	57	43	38	13	14	14
Florida / <i>The Tampa Tribune</i>	30	25	20	10	11	6
Missouri / <i>The Kansas City Star</i>	60	51	39	13	12	11
Texas / <i>Fort Worth Star-Telegram</i>	23	18	15	4	6	7
Florida / <i>Orlando Sentinel</i>	45	37	28	9	10	9
Florida / <i>South Florida Sun-Sentinel</i>	29	23	19	7	8	6
Texas / <i>San Antonio Express-News</i>	63	47	40	16	15	14
Pennsylvania / <i>Pittsburgh Post-Gazette</i>	n/a	40	28	n/a	8	9
Arkansas / <i>Arkansas Democrat-Gazette</i>	63	54	45	6	6	6
Florida / <i>The Miami Herald</i>	39	31	26	8	9	8
Indiana / <i>The Indianapolis Star</i>	49	40	33	13	12	11
Utah / <i>Deseret News</i>	20	n/a	16	7	n/a	11
Ohio / <i>The Columbus Dispatch</i>	60	52	38	9	12	10
Texas / <i>Austin American-Statesman</i>	59	45	40	21	18	16
North Carolina / <i>The Charlotte Observer</i>	46	39	29	10	12	10
Virginia / <i>The Virginian-Pilot</i>	53	44	37	15	15	14
California / <i>The Press-Enterprise</i>	6	5	4	1	1	1
North Carolina / <i>The News &amp; Observer</i>	37	32	24	10	8	8
Kentucky / <i>The Courier-Journal</i>	64	56	46	10	12	9
Connecticut / <i>The Hartford Courant</i>	41	31	28	11	8	8
Mean	42.4	35.9	28.8	9.8	10.7	10.0

to 13.6 percentage points over eight years—or 1.7 percentage points per year during the period.

RQ3 asked to what extent online readership has changed over time. [Table 2](#) presents the percent reach of the online edition for each newspaper in 2007, 2011, and 2015. Surprisingly, online readership has shown little to no growth during the period. The average reach increased slightly from 9.8 percent in 2007 to 10.7 percent in 2011 and then decreased slightly to 10.0 percent in 2015.

A closer look at the online readership data revealed that, among the 51 newspapers, 26 increased their online reach by 0.1 to 7.2 percentage points between 2007 and 2015. But 21 newspapers reported a decline in online reach, losing anywhere from 0.4 to 6.5 percentage points during the same period of time.

Regarding more recent changes in online readership (2011–2015), as many as 32 newspapers experienced a decrease (ranging from 0.1 to 5.6 percentage points); only 17 newspapers achieved an increase (0.1 to 4.4 percentage points).

According to the 2015 list of North American newspapers with digital subscription plans ([News & Tech 2015](#)), 32 newspapers in our sample have erected paywalls around their digital content. To evaluate the plausible impact of paywalls on online readership, follow-up analysis tracked changes in online reach between 2011 and 2015 among newspapers with digital paywalls and those without. Results indicated that papers with paywalls ( $N = 32$ ) on average lost 0.9 percentage point of online reach since 2011; papers without paywalls ( $N = 19$ ) lost 0.4 percentage point.

RQ4 asked about the composition of the net combined readership—print-only, hybrid, and online-only. [Table 3](#) presents the results. In 2015, the combined readership consisted of 23.3 percent print-only, 5.5 percent hybrid (both print and online), and 4.5 percent online-only.

Over time, print-only readership declined (from 35.4 percent in 2007 to 23.3 percent in 2015), and so did hybrid readership (from 7.1 to 5.5 percent). Online-only increased from 2.7 to 4.5 percent. [Figure 1](#) illustrates the composition of combined readership in 2007, 2011, and 2015. Despite substantial declines, print-only remains the primary readership segment; hybrid remains the secondary, and online-only a fraction of overall readership.

RQ5 asked whether readers of the online edition, compared with the general public, are more likely to read the same newspaper's print edition. Results showed that, across all 51 newspapers, without an exception, online edition readers' propensity of reading the print edition is higher than the general public's propensity of reading the print edition by a wide margin (54.7 percent versus 28.8 percent in 2015). In other words, online edition readers are nearly twice as likely to read the same paper's print edition as the general public.

RQ5 also asked whether hybrid readers outnumber online-only readers. Among 36 out of the 51 newspapers, this is true. Overall, more than 50 percent of online edition readers (54.7 percent in 2015) read the print edition; the rest are online-only.

RQ6 asked about print and online reach among different age groups. [Table 4](#) presents the results. In all 51 cases, the oldest group (55+) is the most likely to read the print edition. As for online, results are mixed. In 24 out of 51 cases, the highest online reach falls on 35–44-year-olds.

When the comparison is made between print and online, print reach surpassed online reach by a wide margin across all age groups. [Figure 2](#) illustrates the gap.

**TABLE 3**  
In-market print-only, hybrid, and online-only reach, 2007–2015 (%)

State / newspaper	Print-only reach			Hybrid reach			Online-only reach		
	2007	2011	2015	2007	2011	2015	2007	2011	2015
California / <i>The Orange County Register</i>	10	7	7	1	2	1	1	2	2
California / <i>Los Angeles Times</i>	30	24	19	4	5	5	2	4	6
Florida / <i>The News-Press</i>	34	28	23	6	4	4	2	3	2
California / <i>San Jose Mercury News</i>	n/a	32	27	n/a	7	6	n/a	5	6
New York / <i>Newsday</i>	13	11	9	2	2	2	1	2	2
New York / <i>New York Daily News</i>	27	24	17	2	2	3	1	2	3
Illinois / <i>Chicago Tribune</i>	39	28	26	7	6	7	3	4	6
Washington, DC / <i>The Washington Post</i>	45	39	28	17	15	13	5	6	8
Texas / <i>The Dallas Morning News</i>	35	26	21	6	5	4	3	4	4
Colorado / <i>The Denver Post</i>	45	n/a	26	5	n/a	5	2	n/a	5
Pennsylvania / <i>The Philadelphia Inquirer</i>	32	24	19	4	4	3	1	4	4
Texas / <i>Houston Chronicle</i>	45	36	27	7	7	5	3	7	5
Illinois / <i>Chicago Sun-Times</i>	n/a	38	20	n/a	4	3	n/a	3	3
Nevada / <i>Las Vegas Review-Journal</i>	n/a	39	31	n/a	6	6	n/a	6	5
Florida / <i>Tampa Bay Times</i>	30	31	27	5	3	3	1	2	2
Minnesota / <i>Star Tribune</i>	44	36	33	9	9	9	3	3	5
New Jersey / <i>The Star-Ledger</i>	11	8	5	2	2	2	1	3	4
Ohio / <i>The Plain Dealer</i>	40	31	24	7	9	7	2	4	4
Massachusetts / <i>The Boston Globe</i>	30	19	17	10	9	8	6	11	8
Hawaii / <i>Honolulu Star-Advertiser</i>	53	41	42	9	12	9	2	4	2
Oregon / <i>The Oregonian</i>	46	37	23	8	9	10	3	4	8
Washington / <i>The Seattle Times</i>	34	26	24	10	9	7	5	7	6
Arizona / <i>The Arizona Republic</i>	39	35	25	13	10	7	5	7	9
Georgia / <i>Atlanta Journal-Constitution</i>	36	25	18	12	10	7	6	7	8
California / <i>U-T San Diego</i>	43	35	30	12	9	6	5	7	5
Minnesota / <i>St. Paul Pioneer Press</i>	24	21	17	4	3	3	2	2	3
Michigan / <i>Detroit Free Press</i>	44	34	29	5	6	7	4	5	7
California / <i>San Francisco Chronicle</i>	26	18	15	7	6	5	4	8	8
Pennsylvania / <i>Tribune-Review</i>	26	28	27	3	3	5	2	3	3
Wisconsin / <i>Milwaukee Journal Sentinel</i>	52	44	34	13	13	9	2	4	7

(Continued)

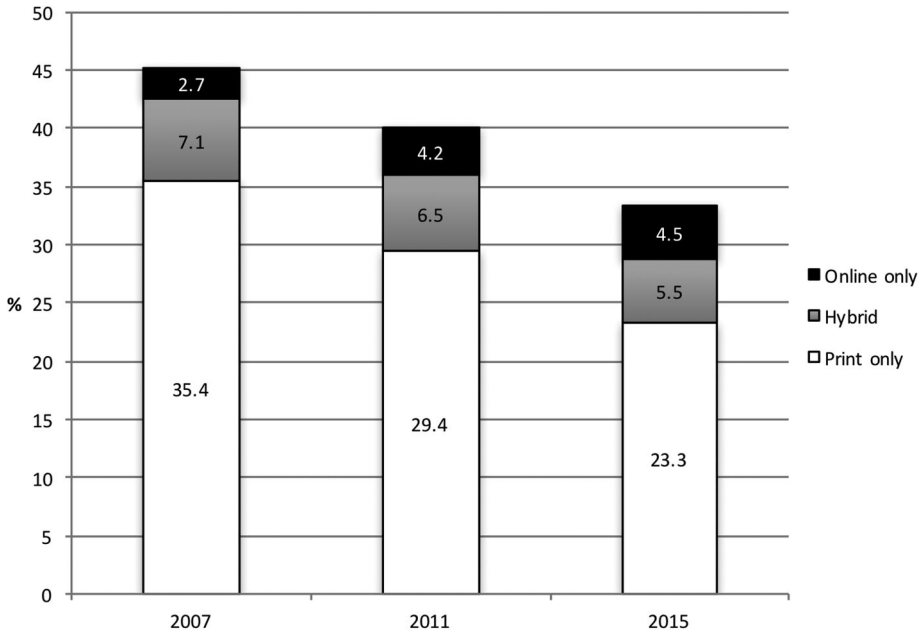
**TABLE 3**  
(Continued)

State / newspaper	Print-only reach			Hybrid reach			Online-only reach		
	2007	2011	2015	2007	2011	2015	2007	2011	2015
California / <i>The Sacramento Bee</i>	30	25	19	6	6	4	2	4	4
Missouri / <i>St. Louis Post-Dispatch</i>	47	35	30	10	8	8	3	6	6
Florida / <i>The Tampa Tribune</i>	25	20	17	5	5	3	5	6	3
Missouri / <i>The Kansas City Star</i>	50	44	33	10	8	6	3	4	5
Texas / <i>Fort Worth Star-Telegram</i>	20	15	12	2	3	2	2	3	5
Florida / <i>Orlando Sentinel</i>	38	31	23	7	6	6	2	4	3
Florida / <i>South Florida Sun-Sentinel</i>	25	19	16	4	4	3	3	4	3
Texas / <i>San Antonio Express-News</i>	50	38	31	13	9	9	3	7	5
Pennsylvania / <i>Pittsburgh Post-Gazette</i>	n/a	35	23	n/a	5	5	n/a	3	5
Arkansas / <i>Arkansas Democrat-Gazette</i>	58	49	41	5	5	4	0	1	2
Florida / <i>The Miami Herald</i>	34	27	22	5	4	5	3	4	3
Indiana / <i>The Indianapolis Star</i>	40	32	27	10	8	6	3	4	5
Utah / <i>Deseret News</i>	16	n/a	12	4	n/a	4	3	n/a	7
Ohio / <i>The Columbus Dispatch</i>	52	42	30	8	9	7	2	2	3
Texas / <i>Austin American-Statesman</i>	44	35	30	16	10	10	5	8	7
North Carolina / <i>The Charlotte Observer</i>	39	32	24	7	7	5	3	4	5
Virginia / <i>The Virginian-Pilot</i>	42	34	28	11	10	9	4	5	5
California / <i>The Press-Enterprise</i>	6	4	3	0	1	1	0	1	1
North Carolina / <i>The News &amp; Observer</i>	29	27	19	8	5	5	2	3	4
Kentucky / <i>The Courier-Journal</i>	55	47	40	9	9	6	1	2	2
Connecticut / <i>The Hartford Courant</i>	34	26	24	8	5	5	3	3	3
Mean	35.4	29.4	23.3	7.1	6.5	5.5	2.7	4.2	4.5

Among the youngest group (ages 18–24), an average of 19.9 percent read the print edition of the newspaper during the past seven days; only 7.8 percent accessed the paper digitally.

## Discussion

Through a longitudinal analysis of 51 US newspapers' readership data, this study presents up-to-date findings confirming that these newspapers are stuck between a shrinking



**FIGURE 1**  
Composition of in-market combined readership, 2007–2015

market for print and an unsuccessful experiment online. From 2007 to 2015, print readership declined substantially, which is in line with the well-reported circulation trends. However, these newspapers’ in-market online readership saw very little or no growth at all during the same period.

Moreover, the supposedly dying print product still reaches far more readers than the allegedly promising digital product in these newspapers’ home markets. Despite substantial declines, the print edition remains the core product in the local market, without a single exception, reaching far more readers than the online edition across all age groups. This suggests that, while print readership is declining, newspaper readers did not drop print *in favor of* the same newspaper’s online edition.

The reality is that none of these major newspapers’ websites—other than *The Washington Post* and the *Austin American-Statesman*—has ever been able to reach 20 percent of its local residents. The 2015 average is 10 percent. Overall, the online edition contributes a relatively small number of non-print, online-only users to the overall combined readership in these major newspapers’ local markets. It is thus unsurprising that newspaper sites have failed to generate more advertising revenue or to attain a decent number of paying subscribers.

As for the reasons why the online edition has not been able to maintain a readership comparable in size to that of its “dead-tree” counterpart, despite interactive, multimedia capabilities and the fact that it has been available for free in most cases until recent years, scholars suggested that online news is perceived by users as an inferior good, a less satisfying alternative to print newspapers (Chyi and Yang 2009). The following factors may also explain why readers respond to print and digital news products

TABLE 4

In-market online and print reach by age, 2015

	Print reach					Online reach				
	18–24	25–34	35–44	45–54	55+	18–24	25–34	35–44	45–54	55+
California / <i>The Orange County Register</i>	6.4	5.0	5.7	7.8	<b>11.4</b>	2.4	<b>4.5</b>	4.0	3.0	1.6
California / <i>Los Angeles Times</i>	15.9	22.2	18.2	23.5	<b>31.5</b>	12.2	<b>14.7</b>	12.7	11.3	6.1
Florida / <i>The News-Press</i>	21.8	19.7	15.1	23.2	<b>33.1</b>	1.4	5.0	8.9	<b>10.7</b>	4.1
California / <i>San Jose Mercury News</i>	23.9	22.2	25.7	35.7	<b>44.2</b>	10.4	<b>17.3</b>	14.5	10.9	6.5
New York / <i>Newsday</i>	7.1	7.6	8.3	11.5	<b>13.4</b>	2.7	<b>4.9</b>	4.5	4.3	2.2
New York / <i>New York Daily News</i>	15.2	18.5	17.6	21.1	<b>22.5</b>	n/a	n/a	n/a	n/a	n/a
Illinois / <i>Chicago Tribune</i>	22.6	24.8	27.1	31.0	<b>44.7</b>	12.1	<b>16.9</b>	13.6	11.9	8.4
Washington, DC / <i>The Washington Post</i>	39.0	26.3	34.1	40.2	<b>54.3</b>	22.6	22.4	<b>25.2</b>	22.2	15.1
Texas / <i>The Dallas Morning News</i>	21.4	14.3	17.7	27.5	<b>35.3</b>	6.8	8.7	6.8	<b>9.9</b>	6.2
Colorado / <i>The Denver Post</i>	24.3	19.4	24.8	31.5	<b>43.6</b>	7.1	<b>16.5</b>	11.1	9.8	6.4
Pennsylvania / <i>The Philadelphia Inquirer</i>	20.1	13.9	19.1	18.2	<b>30.1</b>	n/a	n/a	n/a	n/a	n/a
Texas / <i>Houston Chronicle</i>	22.4	19.2	22.4	32.2	<b>51.0</b>	4.7	10.4	11.5	<b>14.1</b>	9.0
Illinois / <i>Chicago Sun-Times</i>	14.7	24.2	23.0	23.4	<b>25.0</b>	6.3	7.1	<b>8.8</b>	6.9	3.6
Nevada / <i>Las Vegas Review-Journal</i>	25.1	24.0	20.7	38.0	<b>54.3</b>	8.5	7.1	<b>16.9</b>	13.6	8.4
Florida / <i>Tampa Bay Times</i>	21.3	31.7	26.0	30.4	<b>33.2</b>	6.4	<b>7.0</b>	6.0	4.7	3.4
Minnesota / <i>Star Tribune</i>	20.9	33.0	47.3	<b>47.7</b>	<b>47.7</b>	6.9	<b>20.6</b>	15.1	15.8	9.2
New Jersey / <i>The Star-Ledger</i>	6.8	4.9	4.9	7.7	<b>9.5</b>	4.1	<b>8.2</b>	<b>8.2</b>	6.8	3.0
Ohio / <i>The Plain Dealer</i>	18.1	23.1	31.8	32.9	<b>37.4</b>	10.3	11.9	<b>17.0</b>	11.6	8.9
Massachusetts / <i>The Boston Globe</i>	21.4	18.7	21.5	23.9	<b>31.5</b>	14.2	20.8	<b>28.8</b>	18.0	8.6
Hawaii / <i>Honolulu Star-Advertiser</i>	33.9	49.1	45.0	45.2	<b>60.6</b>	7.9	10.0	<b>12.4</b>	11.9	11.6
Oregon / <i>The Oregonian</i>	28.6	24.2	31.3	28.8	<b>39.6</b>	17.5	25.4	<b>25.6</b>	17.3	9.9
Washington / <i>The Seattle Times</i>	29.2	24.5	22.6	29.8	<b>38.6</b>	9.4	17.0	<b>18.8</b>	15.4	8.8
Arizona / <i>The Arizona Republic</i>	21.8	18.3	24.7	37.2	<b>45.2</b>	9.2	17.8	<b>28.4</b>	16.6	11.9
Georgia / <i>Atlanta Journal-Constitution</i>	11.3	16.2	23.6	24.8	<b>37.7</b>	6.9	19.8	18.6	<b>20.4</b>	10.0
California / <i>U-T San Diego</i>	35.3	22.1	25.0	38.0	<b>52.6</b>	7.2	<b>18.6</b>	8.6	12.7	7.9
Minnesota / <i>St. Paul Pioneer Press</i>	12.3	8.8	20.7	21.4	<b>26.4</b>	3.4	3.2	<b>10.0</b>	9.0	3.0
Michigan / <i>Detroit Free Press</i>	19.9	20.5	28.3	33.5	<b>41.8</b>	9.1	12.1	<b>19.6</b>	16.5	7.8
California / <i>San Francisco Chronicle</i>	9.6	17.1	12.6	19.8	<b>27.1</b>	8.7	14.7	<b>17.1</b>	15.6	9.3

(Continued)

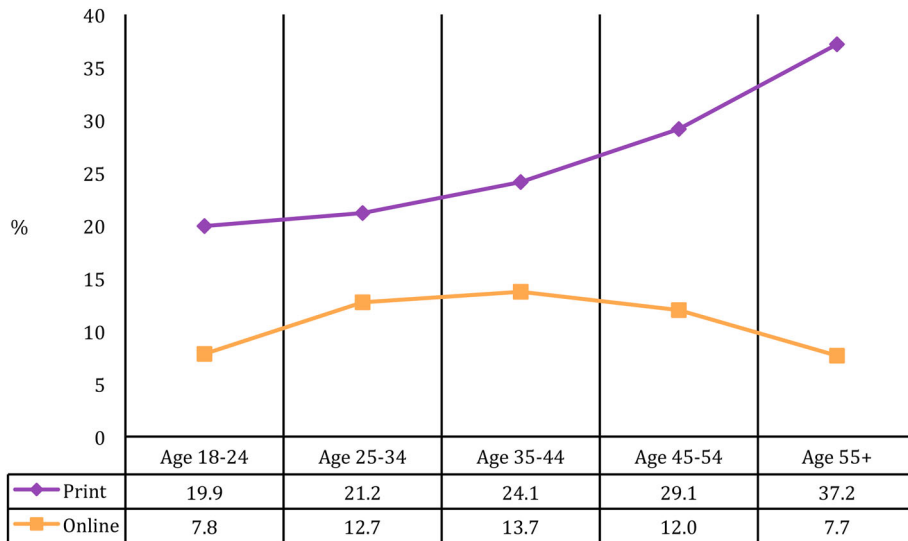


**TABLE 4**  
(Continued)

	Print reach					Online reach				
	18–24	25–34	35–44	45–54	55+	18–24	25–34	35–44	45–54	55+
Pennsylvania / <i>Tribune-Review</i>	11.2	13.8	19.1	19.4	<b>24.6</b>	<b>13.0</b>	6.3	10.4	8.4	5.1
Wisconsin / <i>Milwaukee Journal Sentinel</i>	20.9	31.9	35.0	42.7	<b>58.2</b>	9.1	19.2	<b>26.0</b>	14.7	11.4
California / <i>The Sacramento Bee</i>	12.9	15.9	18.1	27.3	<b>32.2</b>	5.3	<b>10.5</b>	9.7	10.3	5.3
Missouri / <i>St. Louis Post-Dispatch</i>	32.9	21.2	34.8	40.6	<b>47.0</b>	7.5	15.2	<b>20.0</b>	18.5	11.7
Florida / <i>The Tampa Tribune</i>	14.8	18.0	17.5	19.8	<b>21.5</b>	4.7	7.5	<b>9.2</b>	6.1	4.0
Missouri / <i>The Kansas City Star</i>	25.4	26.1	31.9	40.4	<b>52.2</b>	2.8	15.3	15.4	<b>15.7</b>	8.1
Texas / <i>Fort Worth Star-Telegram</i>	7.9	8.8	14.2	14.8	<b>20.8</b>	6.9	4.1	<b>9.9</b>	7.5	6.8
Florida / <i>Orlando Sentinel</i>	23.1	29.0	28.7	28.6	<b>29.4</b>	10.5	12.9	<b>15.1</b>	7.7	5.1
Florida / <i>South Florida Sun-Sentinel</i>	7.1	13.8	9.7	16.8	<b>21.6</b>	10.1	20.9	16.5	20.9	<b>22.1</b>
Texas / <i>San Antonio Express-News</i>	23.4	36.4	24.8	45.5	<b>54.5</b>	5.3	<b>23.7</b>	13.8	18.6	10.8
Pennsylvania / <i>Pittsburgh Post-Gazette</i>	13.2	14.9	27.7	30.5	<b>35.5</b>	6.5	10.6	<b>18.7</b>	8.7	7.0
Arkansas / <i>Arkansas Democrat-Gazette</i>	26.9	31.5	52.0	43.4	<b>55.0</b>	6.0	6.3	<b>9.0</b>	3.5	4.8
Florida / <i>The Miami Herald</i>	21.5	17.7	22.6	27.1	<b>32.9</b>	8.3	6.5	7.8	<b>11.1</b>	6.4
Indiana / <i>The Indianapolis Star</i>	19.3	22.1	30.8	31.6	<b>46.0</b>	6.8	<b>17.6</b>	16.3	9.3	7.0
Utah / <i>Deseret News</i>	17.1	12.9	10.8	12.9	<b>22.9</b>	10.1	12.6	<b>14.7</b>	10.3	8.5
Ohio / <i>The Columbus Dispatch</i>	28.9	28.9	30.4	37.1	<b>49.8</b>	4.5	9.9	8.7	<b>14.5</b>	9.3
Texas / <i>Austin American-Statesman</i>	34.4	27.8	31.0	42.7	<b>56.0</b>	8.2	18.8	<b>21.8</b>	19.8	13.0
North Carolina / <i>The Charlotte Observer</i>	16.3	21.8	22.6	30.8	<b>39.3</b>	4.8	11.3	<b>13.8</b>	12.8	7.2
Virginia / <i>The Virginian-Pilot</i>	26.8	26.1	30.9	44.2	<b>45.8</b>	13.2	<b>19.5</b>	11.9	17.3	9.5
California / <i>The Press-Enterprise</i>	1.7	2.1	3.5	4.4	<b>6.5</b>	1.3	1.0	<b>2.0</b>	<b>2.0</b>	1.0
North Carolina / <i>The News &amp; Observer</i>	8.6	24.3	25.1	23.9	<b>29.4</b>	6.9	<b>11.0</b>	9.1	8.6	7.2
Kentucky / <i>The Courier-Journal</i>	33.7	38.9	35.4	47.0	<b>58.4</b>	<b>11.5</b>	10.1	8.8	7.7	7.8
Connecticut / <i>The Hartford Courant</i>	19.0	22.9	28.7	28.8	<b>32.9</b>	2.1	10.1	11.0	<b>12.4</b>	5.7
Mean	19.9	21.2	24.1	29.1	<b>37.2</b>	7.8	12.7	<b>13.7</b>	12.0	7.7

Bold text indicates highest reach within the format.

Source: Scarborough Release 2, 2015, seven-day in-market DMA print and online readership data.

**FIGURE 2**

In-market print and online reach by age, 2015

quite differently: the screen-based reading experience is rarely pleasant. Cluttered design (Rabaino 2010) and the ever-increasing level of annoyance brought about by intrusive advertisements plague many newspaper sites. Also worthy of consideration is the power of tangibility in cognitive processing. In an applied study, marketing researchers used functional magnetic resonance imagery brain scans to examine the effectiveness of direct mail and digital advertisements, revealing that tangible materials (paper advertisements) leave a deeper footprint in the brain, generate more brain responses associated with internal feelings, and trigger more emotional processing (Millward Brown 2009).

Regardless of the mechanism, the performance gap between newspapers' print and online products documented in this study challenges the "digital first" view about the future of newspapers.

Given dwindled resources, the development of digital products often comes at the expense of their print counterpart. As one community newspaper publisher questioned, "All the effort that is going into the website is hurting the print edition. Could we just not do it?" (quoted in Tennant 2013, 82). Obviously no one can undo what has been done, but as long as newspaper firms drop unrealistic expectations, value audience research, offer noteworthy content, and deliver it through the most appropriate platforms valued by readers, albeit no longer "wildly profitable," there may still be a future for newspapers.

## Limitations and Future Studies

This study analyzed readership data collected by Scarborough Research. Several limitations warrant discussion. First, our analysis included only larger local daily newspapers with circulation of 120,000 or above, not nationally circulated newspapers (*The Wall*

*Street Journal*, *USA Today*, and *The New York Times*) or the large number of small community newspapers in the United States. One should take the characteristics of this sample into consideration when interpreting the results.

In addition, as noted above, online readership data employed in this study do not include readers visiting a newspaper site from outside the newspaper's local market (or DMA), thus underestimating the total number of online readers. Research has shown that some newspapers, especially those circulated nationally, can reach a substantial number of overseas users (Thurman 2014). Local newspapers may also attain long-distance users (Chyi 2011). One study based on 28 US local newspapers' online reader survey data reported that an average of 27.5 percent of those papers' online users resided outside the newspaper's designated market (NDM) (Chyi and Sylvie 2010) (note that a NDM is usually smaller than the DMA in which Scarborough conducts surveys to collect readership data). Since most local newspapers heavily rely on local advertisers (Newspaper Association of America 2007; Runett 2005), in-market online readers have been considered more valuable than long-distance readers (Chyi and Sylvie 2010).

Another limitation is that the Scarborough approach may not fully consider audience exposure to newspaper content through social media, search engines, and news aggregators. For example, when users encounter a newspaper story on Facebook or Twitter (through subscription or shared content), some follow the link to the newspaper site. Among them, not all would identify themselves as a reader of the online edition in Scarborough's readership survey because they may not remember visiting a newspaper site—thus Scarborough may underestimate the number of visitors to newspaper sites. Nevertheless, Scarborough's data focus on self-identified readership, which is more important than flyby visits through incidental exposure in terms of time spent on the site (Mitchell, Jurkowitz, and Olmstead 2014) and business prospect.

Additionally, while this study compared newspapers' print and online readership, which is based on reach, it did not consider audience engagement, such as time spent or frequency of use. According to the State of the News Media report (Pew Research Center 2015), visits to major newspapers' websites do not last long (e.g., slightly more than two minutes for *Chicago Tribune*; below two minutes for *Houston Chronicle*). In the UK context, Thurman (2014) estimated that in 2011 a minimum of 96.7 percent (on average) of the time spent with national newspapers by their domestic readers was in print, suggesting that the online–print performance gap in audience engagement is deep and wide. Future studies should examine other dimensions of online attention such as loyalty, depth, and stickiness (Zheng, Chyi, and Kaufhold 2012) to fully understand the performance of digital news products.

Also noted is the possibility that readership data, when collected through telephone surveys, may overestimate the number of print and online readers due to social desirability issues.

To conclude, no audience measures generate completely accurate results, but our longitudinal analysis compared readership trends over time using (arguably) the best data available to industry practitioners. As multiplatform readership gets increasingly complicated, the definition of readership may have to change accordingly. Nevertheless, it is important that newspaper firms constantly monitor reader composition and use that intelligence to guide (or correct) their product strategy so as to better serve readers on preferred platforms.

## DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

## NOTES

1. The interviews are conducted through Random Digit Dialing and include cell-phone-only respondents in all local markets.
2. A DMA is a specific geographic area to which a county in the United States is exclusively assigned on the basis of the television viewing habits of the people residing in the county, defined by A.C. Nielsen.
3. Formerly known as ABC's Audience-FAX\* eTrends Tool (<http://abcas3.auditedmedia.com/audience-fax/default.aspx>).
4. See <http://auditedmedia.com/data/media-intelligence-center/reports-and-tools/>.
5. Respondents are asked whether they have "read or looked into" any part of each of the weekday printed newspapers available in their local area in the past seven days. They are also asked whether they have visited the newspaper websites in the past seven days. The 2015 question prompted respondents to include access by laptop, tablet, smart-phone, etc. "Reach" is the percentage of adults (age 18+) in the market that are reached by the newspaper.
6. See <http://abcas3.auditedmedia.com/scarborough/login.aspx>.

## REFERENCES

- Brook, Stephen. 2006. "One Newspaper Reader Worth up to 100 Online Users in Ad Revenue." *The Guardian*. <http://www.guardian.co.uk/media/2006/feb/27/pressandpublishing.newmedia>.
- Case, Brendan. 2009. "Dallas Morning News Takes Premium Value Approach." *Dallas Morning News*, October 11. [http://www.dallasnews.com/sharedcontent/dws/bus/stories/DN-DMN\\_11bus.ART0.State.Edition1.3cf5397.html](http://www.dallasnews.com/sharedcontent/dws/bus/stories/DN-DMN_11bus.ART0.State.Edition1.3cf5397.html).
- Choney, Suzanne. 2011. "Online News Readership Overtakes Newspapers." *NBC News.com*. March 14. <http://www.nbcnews.com/technology/online-news-readership-overtakes-newspapers-124383>.
- Chyi, Hsiang Iris. 2006. "Re-Examining the Market Relation between Online and Print Newspapers: The Case of Hong Kong." In *Internet Newspapers*, edited by Xigen Li, 193–205. Mahwah, NJ: Lawrence Erlbaum.
- Chyi, Hsiang Iris. 2011. "Online Readers Geographically More Dispersed than Print Readers." *Newspaper Research Journal* 32 (3): 97–111.
- Chyi, Hsiang Iris. 2013. *Trial and Error: U.S. Newspapers' Digital Struggles toward Inferiority*. Vol. 14. Pamplona: University of Navarra, Media Markets Monographs.
- Chyi, Hsiang Iris, and Dominic L. Lasorsa. 1999. "Access, Use and Preference for Online Newspapers." *Newspaper Research Journal* 20: 2–13.
- Chyi, Hsiang Iris, and Dominic L. Lasorsa. 2002. "An Explorative Study on the Market Relation between Online and Print Newspapers." *Journal of Media Economics* 15 (2): 91–106.
- Chyi, Hsiang Iris, and Seth C. Lewis. 2009. "Use of Online Newspaper Sites Lags behind Print Editions." *Newspaper Research Journal* 30 (4): 38–53.
- Chyi, Hsiang Iris, Seth C. Lewis, and Nan Zheng. 2012. "A Matter of Life and Death? Examining How Newspapers Covered the Newspaper 'crisis'." *Journalism Studies* 13 (3): 305–324.

- Chyi, Hsiang Iris, and J. Sonia Huang. 2011. "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* 21 (3): 243–261.
- Chyi, Hsiang Iris, and George Sylvie. 2010. "Are Long-Distance Users an Inconvenient Truth? Profiling U.S. Newspapers' Online Readership in the Dual-Geographic Market." *International Journal on Media Management* 12 (2): 1–20.
- Chyi, Hsiang Iris, and Mengchieh Jacie Yang. 2009. "Is Online News an Inferior Good? Examining the Economic Nature of Online News among Users." *Journalism & Mass Communication Quarterly* 86 (3): 594–612.
- Dick, Brad. 2009. "Spending Analog Dollars to Get Digital Pennies." *TV Technology*, January 14. <http://www.tvtechnology.com/default.aspx?tabid=204&entryid=1097>.
- Doctor, Ken. 2011. "Nine Questions on the Dallas Morning News Pay Plan." *Newsonomics*, March 7. <http://newsonomics.com/nine-questions-on-the-dallas-morning-news-pay-plan/>.
- Editor & Publisher. 2015. *Newspaper Databook 2015*. Fountain Valley, CA: Editor & Publisher.
- Gordon, Rich. 2007. "Pondering Panels: ComScore, Nielsen Report Dissimilar Numbers due to Methodology Differences." *Newspaper Association of America*. June 8. <http://www.naa.org/Resources/Articles/Digital-Edge-Pondering-Panels/Digital-Edge-Pondering-Panels.aspx>.
- Graybeal, Geoffrey M. 2011. "Newspapers Publish Less in Print; Focus on Web to Attract Young Readers." *Newspaper Research Journal* 32 (1): 90–97.
- Guskin, Emily. 2013. "Newspaper Newsrooms Suffer Large Staffing Decreases." *Pew Research Center*. June 25. <http://www.pewresearch.org/fact-tank/2013/06/25/newspaper-newsrooms-suffer-large-staffing-decreases/>.
- Hargrove, Thomas, Jerry Miller, and Guido H. Stempel. 2011. "Study Compares Print, Online Use of Metro, Community Newspapers." *Newspaper Research Journal* 32 (1): 84–89.
- Millward Brown. 2009. "Using Neuroscience to Understand the Role of Direct Mail." <https://www.millwardbrown.com/Insights/CaseStudies/NeuroscienceDirectMail.aspx>.
- Mitchell, Amy, Mark Jurkowitz, and Kenny Olmstead. 2014. "Social, Search and Direct: Pathways to Digital News." *Pew Research Center's Journalism Project*, March 13. <http://www.journalism.org/2014/03/13/social-search-direct/>.
- Mutter, Alan D. 2010. "Faced with Falling Circ, Publishers Retool Rules." *Reflections of a Newsosaur*, October 4. <http://newsosaur.blogspot.com/2010/10/faced-with-falling-circ-publishers.html>.
- Mutter, Alan D. 2013. "How Many People Really Pay for Digital News?" *Reflections of a Newsosaur*, September 25. <http://newsosaur.blogspot.ca/2013/09/how-many-people-really-pay-for-digital.html>.
- Myllylahti, Merja. 2013. "Newspaper Paywalls—the Hype and the Reality: A Study of How Paid News Content Impacts on Media Corporation Revenues." *Digital Journalism* 2 (2): 179–194. doi:10.1080/21670811.2013.813214.
- Newspaper Association of America. 2007. "Newspapers' Online Operations: Performance Report 2006." [http://www.naa.org/docs/Digital-Media/200710\\_NP\\_Online\\_Per\\_Present.pdf](http://www.naa.org/docs/Digital-Media/200710_NP_Online_Per_Present.pdf).
- Newspaper Association of America. 2012. "Newspaper Circulation Volume." September 4. <http://www.naa.org/Trends-and-Numbers/Circulation-Volume/Newspaper-Circulation-Volume.aspx>.
- Newspaper Association of America. 2013. "The American Newspaper Media Industry Revenue Profile 2012." April 8. <http://www.naa.org/Trends-and-Numbers/Newspaper-Revenue/Newspaper-Media-Industry-Revenue-Profile-2012.aspx>.

- Newspaper Association of America. 2015. "Audience-Fax User Guide." <http://online.audiencefax.com/Audience-Fax%20User%20Guide%204.08.pdf>.
- News & Tech. 2015. "N.A. Papers with Paywalls." <http://www.newsandtech.com/stats/paywalls.html>.
- Olivarez-Giles, Nathan. 2011. "Web Tops Newspapers as News Source for First Time." *Los Angeles Times*, March 15. <http://articles.latimes.com/2011/mar/15/business/la-fi-web-newspapers-20110315>.
- Paper Cuts. 2013. "Layoffs and Buyouts at U.S. Newspapers." <http://newspaperlayoffs.com>.
- Paton, John. 2010. "John Paton's Dec. 2 Presentation at INMA Transformation of News Summit in Cambridge, Mass." *Digital First*, December 2. <http://jxpaton.wordpress.com/2010/12/02/presentation-by-john-paton-at-inma-transformation-of-news-summit-in-cambridge-mass/>.
- Patterson, Thomas E. 2007. "Creative Destruction: An Exploratory Look at News on the Internet." Carnegie/Knight Task Force Report on the Future of Journalism Education, Shorenstein Center, Kennedy School of Government.
- Penenberg, Adam L. 2004. "Newspapers Should Really Worry." *Wired*, November 24. <http://www.wired.com/culture/lifestyle/news/2004/11/65813?currentPage=all>.
- Pérez-Peña, Richard. 2008. "Times Plans to Combine Sections of the Paper." *New York Times*, September 6, New York edition.
- Pew Research Center. 2015. "State of the News Media 2015." <http://www.journalism.org/files/2015/04/FINAL-STATE-OF-THE-NEWS-MEDIA1.pdf>.
- Pew Research Center for the People & the Press. 2006, July 30. "Online Papers Modestly Boost Newspaper Readership: Maturing Internet News Audience Broader than Deep." <http://www.people-press.org/2006/07/30/section-1-watching-reading-and-listening-to-the-news-2/>.
- Pew Research Center for the People & the Press. 2012, September 27. "Section 2: Online and Digital News." <http://www.people-press.org/2012/09/27/section-2-online-and-digital-news-2/>.
- Picard, Robert G. 2003. "Cash Cows or Entrecôte: Publishing Companies and Disruptive Technologies." *Trends in Communication* 11 (2): 127–136.
- Picard, Robert G. 2005. "The Nature of Media Product Portfolios." In *Media Product Portfolios: Issues in Management of Multiple Products and Services*, edited by Robert G. Picard, 1–22. Hoboken: Routledge.
- Picard, Robert G. 2008. "News Consumption and the Business of Journalism." 2008: *New Models for News*, 112–118. The 2008 Breaux Symposium. <http://uiswcmsweb.prod.lsu.edu/manship/ReillyCenter/JohnBreauxSymposium/PreviousBreauxSymposia/item16005.html>.
- Picard, Robert G., and Jeffrey H. Brody. 1997. *The Newspaper Publishing Industry*. Boston: Allyn & Bacon.
- Project for Excellence in Journalism. 2006, October 12. "Papers Hope to Sell Print + Online Readers to Advertisers." <http://www.journalism.org/node/2370>.
- Rabaino, Lauren M. 2010. "Four Major Sins of News Design." *10,000 Words*, November 22. [http://www.mediabistro.com/10000words/four-fixable-sins-of-news-design\\_b1741](http://www.mediabistro.com/10000words/four-fixable-sins-of-news-design_b1741).
- Rosenstiel, Tom, and Amy Mitchell. 2011. "Overview." *The State of the News Media*. <http://stateofthemedias.org/2011/overview-2/>.
- Runett, Rob. 2005. "Newspapers' Online Operations: Performance Report 2004." *The Digital Edge*, November 14. [http://www.digitaledge.org/download/Performance\\_2004.pdf](http://www.digitaledge.org/download/Performance_2004.pdf).
- Sulzberger, Arthur O. 2011. "A Letter to Our Readers about Digital Subscriptions." *New York Times*, March 18. <http://www.nytimes.com/2011/03/18/opinion/18times.html>.

- Tennant, James Ian. 2013. "Free Newspapers in the United States: Alive and Kicking." Doctoral dissertation, Austin, Texas, The University of Texas at Austin.
- The New York Times Company. 2015. "The New York Times Company Reports 2015 Third-Quarter Results." October 29. <http://investors.nytc.com/press/press-releases/press-releasedetails/2015/The-New-York-Times-Company-Reports-2015-Third-Quarter-Results/default.aspx>.
- Thurman, Neil. 2014. "Newspaper Consumption in the Digital Age: Measuring Multi-Channel Audience Attention and Brand Popularity." *Digital Journalism* 2 (2): 156–178. doi:10.1080/21670811.2013.818365.
- Webster, James G. 2014. *The Marketplace of Attention: How Audiences Take Shape in a Digital Age*. Cambridge, MA: The MIT Press.
- Zheng, Nan, Hsiang Iris Chyi, and Kelly Kaufhold. 2012. "Capturing 'human Bandwidth': A Multi-dimensional Model for Measuring Attention on Web Sites." *International Journal on Media Management* 14 (2): 157–179. doi:10.1080/14241277.2011.619153.

**Hsiang Iris Chyi** (author to whom correspondence should be addressed), School of Journalism, The University of Texas at Austin, USA. E-mail: [chy@mail.utexas.edu](mailto:chy@mail.utexas.edu). Web: [irischyi.com](http://irischyi.com)

**Ori Tenenboim**, School of Journalism, The University of Texas at Austin, USA. E-mail: [ori.tenenboim@gmail.com](mailto:ori.tenenboim@gmail.com)