

Intrigued, But Not Immersed:

Millennial Students Analyze the iPad's Performance as a News Platform

Presented to the International Symposium on Online Journalism
The University of Texas at Austin
April 1, 2011

Jake Batsell
Assistant Professor, Division of Journalism
Southern Methodist University
PO Box 750113
Dallas, TX 75275-0113
214.768.1915
jbatsell@smu.edu
[@jbatsell](#)

Intrigued, But Not Immersed:

Millennial Students Analyze the iPad's Performance as a News Platform

Abstract

The arrival of Apple's iPad tablet in 2010 was trumpeted as a pivotal, game-changing moment for the news business. But did the iPad's initial news applications live up to the much-hyped promise of delivering a more immersive news experience? The author, using two iPads obtained through a university pilot program, assigned 28 digital journalism students to rate and analyze iPad news apps during the fall 2010 semester. The iPads were rotated among the students, who examined their chosen news app over a period of at least four days. This study, employing a uses-and-gratifications theoretical framework, asked students to evaluate each app based on four factors: immediacy/urgency, non-linear news presentation, multimedia news content, and reader interactivity. Students were most impressed with multimedia news offerings (awarding an average of 3.7 points on a 5-point scale), but were less enamored with the apps' interactivity (3.3 points) and immediacy (3.1). While many students said they believe the iPad holds promise as a news platform, they generally preferred existing news websites and legacy news products to their iPad counterparts. With some 50 million U.S. millennials (age 18 to 29) now forming what could be lifelong news habits, the study provides early insight into how this crucial demographic is reacting and responding to the tablet as a news medium.

Introduction

When Apple released its iPad tablet device in early 2010, the potential implications for the news business were drenched in hyperbole. As *New York Times* media critic David Carr [famously put it](#), “There hasn’t been this much hype about a tablet since Moses came down from the mountain” (Carr, 2010). The iPad’s portability, ease of use and tactile interface would combine to provide an [immersive](#) Web news [experience](#) that finally would equal – or even surpass – the intimate relationship readers have had for decades with newspapers, magazines and TV programs (Gross, 2010; O’Reagan, 2010).

For news organizations, the stakes are incredibly high. The tablet market is rapidly [expanding](#) (Pegoraro, 2010) with the Samsung Galaxy, Motorola Xoom, Blackberry Playbook and, of course, the iPad 2 now entering the fray, along with improved versions of e-readers such as the Nook and Kindle. The research firm Gartner projects that [mobile devices will overtake desktop computers](#) (Online Media Daily, 2010) as the most commonly used Web interface by 2013, and U.S. tablet sales are [projected to reach 70 million](#) this year and next (Doctor, 2011). And this time, instead of simply giving away their online news content for free, most news organizations are charging a fee for their iPad apps from day one – perhaps providing a second chance to harness the Internet as a viable source of revenue.

Because the tablet is so new to the marketplace, little systematic research has been published regarding the efficacy of the device’s apps as a news platform (Ferrante, 2010). The University of Missouri’s Reynolds Journalism Institute has

gathered and published the most comprehensive data thus far with its [National iPad News Survey](#), but the Reynolds project focuses mainly on the typical survey respondents: affluent, well-educated men between the ages of 35 and 64 (Reynolds Journalism Institute, 2010). The author's study is among the first – if not *the* first – research projects to specifically explore how millennials are using the iPad as a news source. While many students who participated in this study said they believe the iPad holds promise as a news platform, they generally preferred existing news websites and legacy news products to their iPad counterparts. This directly contradicts the initial responses from the older Reynolds survey participants, who overwhelmingly reported that they prefer newspaper apps to websites. Perhaps paradoxically, the so-called “digital natives” upon whom this study focuses were decidedly less impressed with the iPad's initial news apps than were the Reynolds survey's GenXers and Baby Boomers.

Admittedly, this study focuses on a small sample of 28 students. It is an exploratory study that reflects the preferences of only this one sample, and its findings cannot yet be generalized to a larger group. But with some [50 million U.S. millennials](#) aged 18 to 29 (Pew Research Center, 2010) now forming what could be lifelong news habits, the study provides early insight into how this crucial demographic is reacting and responding to the tablet as a news medium. If media companies are hoping to sell these news-savvy millennials – potential “change agents” who can influence their peers – on the merits of the iPad as a news device, they clearly have a lot more work to do.

The results of this study are offered in a constructive spirit, and come with the expectation that the trailblazing media outlets who created the first iPad news apps will

adjust to correct their early flaws. "Criticism feels a little cheap at this stage of the game," digital media executive Barb Palser recently [wrote](#). "The news organizations that are pioneering this space and providing lessons for others don't deserve to be judged for early missteps" (Palser 2011, 46). Fair enough, but identifying and exploring what millennials see as the missteps (and strengths) of first-wave iPad news apps can inform both enterprising media companies and communications scholars.

Overview of the "Active-Audience" Literature

Since the 1940s, mass communication scholars have developed an array of active-audience theories examining how "availability of a new media service can bring about widespread changes in what people do with media" (Baran & Davis 2009, 229). Herzog, Lazarsfeld and Stanton were among the earliest to study this phenomenon, most notably with Herzog's 1944 article exploring the motives of women who listened to radio soap operas. Herzog widely receives credit for pioneering the uses-and-gratifications approach, which examines how people use media and what specific types of satisfaction they seek. Schramm refined the approach in the mid-1950s by focusing on how media consumers constantly weigh the expected rewards of media against the effort required to obtain those rewards. For the past six decades, as media messages evolved from print to public airwaves to cable channels to computer screens to mobile phones, Schramm's central argument has endured: "we all make decisions of which content we choose based on our expectations of having some need met, even if that decision is to not make a choice ..." (Baran & Davis 2009, 233).

The uses-and-gratifications approach seems especially germane when investigating how users consume news on the iPad, a device that offers an almost dizzying array of choices. Analyzing user behavior through this lens can help scholars and professionals better understand how “members of the audience actively select, and then attend to, specific forms of media content that provide gratifications that fulfill their needs” (DeFleur 2010, 193).

Millennials will play an especially powerful role in determining the iPad’s ultimate success as a news medium. As Rogers discovered in the 1960s with his work on innovation diffusion theory, new technologies unfold in stages and depend on “early adopters” who form new habits and become “change agents” by influencing their peers to adopt the new medium (Baran & Davis 2009, 271-2). By analyzing how millennials – the first generation of so-called “digital natives” – use and seek gratification from the initial round of iPad news applications, the news industry can begin to discern the habits of this influential generation and make early adjustments that could be crucial to the long-term success of tablets as a news platform.

Methodology

From September through December 2010, all 28 students in the author’s two digital journalism courses at a private university in the Southwest were asked to select a media organization with an iPad app. Throughout the semester, two iPads were circulated among the students as part of a university pilot program. Twenty-six of the students were female and two were male. All students were in their early-to-mid

twenties, with the exception of one student in her forties.

An iTunes gift card donated by a [former student](#) enabled members of the class to try out paid apps as well as free ones. Selections ranged from ABC News to *Esquire* to *USA Today*. No student could evaluate the same app already reviewed by a fellow student, with the single exception of two students who reviewed *The New York Times* before and after the *Times* unveiled a redesign of its iPad app midway through the semester. Students were instructed to find a sample of the legacy news product (newspaper, magazine, TV news program, or even a good, old-fashioned website) covering the same four-day period during which they evaluated the iPad, providing the basis for an apples-to-apples comparison between the legacy product and that same news organization's app.

After completing their four-day review period, the students' first task was to rate the app on a scale of one to five in four key areas that the author refers to as the "four pillars" of online news — immediacy/urgency, non-linear presentation, multimedia content and interactivity. Characteristics of these online news principles had previously been covered in class. The "four pillars" are a teaching device the author has developed from a combination of sources including news-industry blogs, several excellent online journalism textbooks – most notably Foust (2008) and Briggs (2009) – and the author's own ideas, experience and research.

Assigning students to rate their iPad news experience through the lens of the "four pillars" allows us to examine their uses and gratifications of iPad news apps in

four specific areas:

- **Immediacy and urgency.** Whatever the platform, a sense of urgency is imperative for any online news organization. When news breaks, readers expect to find the latest updates online – and if they don't find the news they're looking for, they'll simply find it somewhere else. Fresh content motivates readers to make a habit of coming back. For newspaper and television news apps, the telltale signs of immediacy are frequent updates and time-stamped stories. Breaking news matters less for magazine apps, but iPad users still need a clear sense that a magazine's app is being constantly refreshed and curated.
- **Non-linear news presentation.** Today's news consumer expects to absorb the news in whatever form she wants, in whatever order she wants. The iPad empowers users with a non-linear experience that offers an endless array of choices, allowing them to tap and swipe from section to section to seamlessly view stories, photos, graphics, videos, interactive timelines and outside links – all according to the user's own desires.
- **Multimedia content.** Rich media content on the iPad offers the promise to be more vivid and immersive than when viewed on computers or TV screens because the tablet is portable, yet technologically elaborate. The iPad has been [described](#) as both a lean-forward (targeted seeking of information) and lean-back (relaxing in the living room) experience, but its

lean-back qualities shine best when viewing multimedia content including video, audio, photo galleries and interactive graphics.

- **Interactivity.** It is a trite – but still important – Web 2.0 truism that news has transformed into a conversation, not a one-way lecture. Readers expect to have a say in the news, whether by commenting on stories, contributing on-the-spot photos and other forms of “citizen journalism,” sharing story links through social media such as Twitter and Facebook, voting on polls, customizing weather forecasts or combing through interactive databases.

After students rated their chosen apps in each of those four areas, they also wrote reviews of 250 to 300 words describing their overall assessment of the app, addressing the following assigned questions:

- Is the iPad fulfilling its promise to create a more compelling news experience for readers?
- If the app costs money, is it worth it? Does it deliver added value that can't be experienced through the legacy product?
- Does the app deserve the reader's time and attention, or is it merely “shovelware” for the legacy product?

“Be frank and honest in your review,” the assignment read. “This is not an Apple-sponsored pilot, so feel absolutely free to speak your mind!” By semester's end, the assignment had provided a rare collection of quantitative metrics, as well as candid

student analyses of the iPad's performance as a news source.

Exhibit A

| App | <i>Immediacy</i> | <i>Nonlinear</i> | <i>Multimedia</i> | <i>Interactivity</i> | Overall score |
|-----------------------------|------------------|------------------|-------------------|----------------------|----------------------|
| 944 Magazine | 3 | 4 | 3 | 5 | 15 |
| ABC News | 3 | 5 | 4 | 3 | 15 |
| BBC News | 4 | 4 | 4 | 4 | 16 |
| CBS News | 4 | 4 | 4 | 3 | 15 |
| Conde Nast Cruise Finder | 1 | 3 | 3.5 | 2 | 9.5 |
| Ebony (65th anniversary) | 3.5 | 3.5 | 3 | 4.5 | 14.5 |
| ESPN ScoreCenter | 4.5 | 3 | 4 | 5 | 16.5 |
| Esquire | 2 | 3 | 4 | 4 | 13 |
| Fox 4 News | 3 | 0 | 4 | 2 | 9 |
| Glamour | 4 | 5 | 5 | 5 | 19 |
| GQ | 5 | 1 | 2 | 1 | 9 |
| Marie Claire (Fall Fashion) | 2 | 2 | 3 | 2 | 9 |
| MTV News | 5 | 3 | 1 | 1 | 10 |
| NY Post | 2 | 3 | 1 | 2 | 8 |
| NYT (Nov. redesign) | 3 | 3 | 3 | 3 | 12 |
| NYT (Oct.) | 2.5 | 5 | 5 | 4 | 16.5 |
| New Yorker | 1 | 4.5 | 4 | 3 | 12.5 |
| Newsday | 5 | 5 | 4 | 5 | 19 |
| NPR | 1 | 3 | 3 | 4 | 11 |
| O Magazine | 3 | 3 | 3 | 3 | 12 |
| People | 2 | 4 | 5 | 2 | 13 |
| Sports Illustrated | 3 | 4 | 5 | 4 | 16 |
| Economist | 1 | 3 | 3 | 1 | 8 |
| Time | 5 | 5 | 5 | 5 | 20 |
| USA Today | 5 | 3 | 5 | 5 | 18 |
| Vanity Fair | 3 | 3 | 4 | 4.5 | 14.5 |
| Washington Post | 3 | 2 | 4 | 3 | 12 |
| Wired | 3.5 | 5 | 5 | 3 | 16.5 |
| AVERAGE SCORES | 3.1 | 3.4 | 3.7 | 3.3 | 13.6 |

Overall summary of results

Of the four elements they were assigned to analyze, students were most impressed with the iPad apps' multimedia content, awarding an average score of 3.7 points on the five-point scale. But the students gave lukewarm ratings for non-linear presentation (3.4) and were largely disappointed with the apps' failure to apply Web 2.0

principles of interactivity (3.3) and immediacy (3.1): “Overall, this app was just like taking the newspaper and putting it in an app form,” a student wrote in her review of the New York Post’s app.

It is noteworthy that the highest overall score – a perfect 20 for TIME Magazine’s app – came from a nontraditional student in her forties, perhaps reflecting her generation’s enthusiasm for iPad news apps as discovered by the Reynolds survey, whose core demographic ranged between the ages of 35 to 64. Among this study’s remaining 27 millennial students, Newsday and Glamour magazine shared the highest overall rating of 19, while The Economist and New York Post received the lowest overall score of 8.

Immediacy and urgency (Average: 3.1 out of 5 points)

Since many newsrooms have spent the past decade adopting a “Web first” culture, it would seem second-nature that media organizations would want to deliver a sense of immediacy with online journalism’s newest platform. “It’s a given that app content should be as current as Web content” (Palser 2011, 49). “Outdated information is a non-starter.”

But many of the millennials who participated in this study found the first-wave iPad news apps to be surprisingly stale. Consider one student’s take on the People Magazine app: “Some of the pictures and stories were old news. I expected it to be up to date with the more current stories I see on the new People magazines on the racks at the store.”

Students were disappointed to discover that even some newspaper apps, including the Washington Post and New York Post, were updated just once a day. The iPad has a Safari browser, so students who were seeking breaking news found themselves bypassing the apps and calling up the website instead. "The daily newspaper goes up in the morning and the stories on the app are not updated until 24 hours later when the next day's newspaper is released," a student wrote in her review of the New York Post app. "So, if a user wants continual updates on a breaking news story, the app is not the place to go. Head to the website, which is great at providing updates."

The student who evaluated ABC News observed "there weren't many news updates over the span of a few days. The application seems to serve the purpose of a source for feature- and entertainment-based news; there seems to be no urgency for hard or breaking news." NPR's website was updated more quickly than the app, and some Web articles could not be found on the iPad version. Indeed, the absence of immediacy was the most common source of frustration cited by students in their app reviews.

A few apps did deliver a sense of urgency. ESPN's ScoreCenter provided real-time engagement for one student who used the app to follow the first two games of the World Series: "In the videos the anchors told the viewers they could follow the game live and with a live blog from their ESPN Dallas site ... I went to it and was able to watch viewers and the author of the blog update and comment live. Really cool stuff."

To one student's delight, Glamour magazine's app WAS updated daily. And while GQ's app followed the magazine pattern of once-a-month delivery, the student who reviewed the app was excited to receive a push notification when the new issue was available. Still, high marks for immediacy were the exception rather than the norm.

Non-linear news presentation (Average: 3.4 out of 5 points)

Non-linear news presentation empowers readers with options to navigate and customize their news experience, a principle that dovetails nicely with the iPad's native capabilities. In this category, students generally gave their iPad apps a passing grade – no better, no worse than they expected.

In her review of ESPN's ScoreCenter, one student complimented the app's non-linear navigation: "What I enjoyed about it is you can tailor the app to fit your personal choices. You merely have to select your team(s) and under that sidebar on the left, there is only newsfeed, videos, links, and photos related to that specific team."

But the student who reviewed the app for Fox4 News, a local Dallas television station, pointedly awarded no points for non-linear presentation – the only zero score out of 112 individual category ratings. "Some of the stories have a video or a link, but most just have the story and picture," he wrote. "This makes it somewhat awkward to browse stories because after reading a story, the user has to return to a stories page rather than continue browsing the site for related articles."

A key part of the non-linear news experience is including links that provide background, context and attribution. The Washington Post's app fulfilled this mission

only to a certain degree: "Links within stories only link out to other articles on the website for The Washington Post," a student wrote. "Links within stories that provide additional paths to information or articles outside of this news organization are non-existent." The app's circle of self-referential links left this student feeling that her options as a news consumer were limited.

But for other students, a limited range of options wasn't necessarily a bad thing. "I really liked the limited distractions," one student wrote of the redesigned New York Times app. "It felt like I was reading The New York Times as if it were a novel and not news. The simplistic design was relaxing and I felt like I could really focus on what I was reading. I don't know if it was the iPad, The New York Times app, or just the articles I read using the devices, but everything I read particularly absorbed into my brain and the content stuck with me."

Multimedia content (Average: 3.7 out of 5 points)

Many students were dazzled by the apps' multimedia offerings. "The video quality is crystal clear perfection," a student wrote. "It was so neat watching all the ESPN videos that led up to the World Series Game 1." Another student found the New York Times' video content to be equally mesmerizing: "The picture is unbelievably clear (much better than that on the iPhone), and the sound isn't muffled like it can be on the iPhone."

The student in her forties loved Time Magazine's app, declaring herself an instant convert largely because of the app's photography. "I actually spent more time reading

the Time Magazine app than the print version," she wrote. "Of course, that may be due to the novelty of the great gizmo's gadgetry. The five best pictures of the week are beautiful, poignant shots."

In addition to the sharp quality, a number of students were pleased to discover extra, iPad-only multimedia content that they found to be well worth the apps' additional effort and price. Ebony Magazine's special 65th anniversary app featured "videos from the photo shoots with stars and journalists in the creation of the special edition, picture slideshows from the past and the present, and audio and video from old and new interviews." The Economist received a low overall rating, but the student reviewer did appreciate the app's enhanced audio offerings: "the audio feature was a sophisticated way to tell stories and added a unique multimedia element."

Still, students were especially disappointed when apps failed to capitalize on the iPad's multimedia capabilities. A student wrote of the New York Post app: "Interactivity and multimedia content were very minimal (huge bummer). There were very few photo slideshows and I found no videos or polls/comment sections through the app." The GQ app, meanwhile, didn't offer "anything new or special that the magazine doesn't already have. Yes, occasionally there is a link to a website you can visit in the stories, but this is rare. There are no videos, extra pictures, or even audio clips."

Interactivity (Average: 3.3 out of 5 points)

The first round of iPad news apps also fell short of the students' expectations for interactivity. The ABC News app allowed users to share through email, Twitter or

Facebook, but that was pretty much it: “the app lacks the ability for users to communicate with the source and might benefit by providing comment options for stories, a capability for users to share story ideas, or live Twitter feeds relating to ABC News.”

One student felt so let down by the MTV News app, she titled her review “Don’t Bother, MTV. Just Stick to Your Website.” The app’s paltry interactivity was one of the main letdowns: “I was really disappointed on the limited ways readers can interact with the application. At the top of each story are links to Facebook, Twitter, e-mail, etc. Although the bottom of each article asked for comments, I could not find a place to list my thoughts about the article.” The student who reviewed People Magazine’s app shared similar frustrations: “There weren’t options to comment on articles or pictures. Everything was just there to be fiddled with.”

Some apps did take advantage of the iPad’s abilities to deliver an interactive experience. An interactive map showing the construction progress of the new World Trade Center buildings enthralled the student who reviewed Esquire Magazine’s app. “Readers can swipe across the image to see architectural mock-ups of the buildings rise from the ground up with explanations along the way. Readers can also engage in interactive quizzes that allow you to fill in your answers and see how you rank against the average.” And the student who evaluated the New Yorker’s app was delighted to discover that she could enter the cartoon caption contest directly from the app.

Students gave credit where it was due, but also made themselves clear that iPad news apps need to provide more interactive options, a point perhaps best exemplified

in the review of Ebony Magazine's 65th anniversary app: "They do an okay job of connecting to social media networks by using an option to 'share' that story via email, Facebook or Twitter at the top of most of the big stories in the magazine. As far as interactivity goes in general, I think they should look into expanding readers' options even further, and they might consider linking to some of their sources for those readers who want more."

Conclusion

Examining these 28 students' self-reported uses and gratifications (or lack thereof) with early iPad news apps provided clear answers to the three central questions the study sought to answer:

- *Is the iPad fulfilling its promise to create a more compelling news experience for readers?* As 2010 came to a close, iPad news apps were only partially fulfilling the promise of a more compelling news experience. The apps occasionally provided stunning multimedia content and non-linear presentation, but those benefits were overshadowed by their lack of interactivity and immediacy.
- *If the app costs money, is it worth it? Does it deliver added value that can't be experienced through the legacy product?* Many students said premium apps aren't worth the money yet. Consider one student's bottom-line verdict for The Economist's app (\$5.99), which offered enhanced audio features but – at least in the student's experience – not much else: "If you enjoy listening to people give you the news, then go for the iPad app. If not, I would stay loyal to their print or

online magazine because you just may be getting more bang for the buck.”

- *Does the app deserve the reader’s time and attention, or is it merely “shovelware” for the legacy product?* After spending at least four days with an iPad, most students said they still prefer websites to apps as a news platform.

These mixed reviews from a small sample of millennials largely contradicted the more enthusiastic early responses of GenXers and Baby Boomers in the Reynolds survey. But the student reviews did reflect the industry buzz that had emerged about iPad news apps by the end of 2010 – that news organizations, particularly print media, had stumbled with their first round of iPad apps. Women’s Wear Daily reported that sales of magazine apps [dropped](#) precipitously after an auspicious debut (Koblin, 2010). In another industry blog, a technology executive [wrote](#): “Print publishers are screwing up what could be their biggest opportunity. Many continue to botch their Web strategy, and are now doubling down by getting their iPad strategy completely wrong” (Koretz, 2011). And in his closely watched “Reflections of a Newsosaur” blog, Alan Mutter [scoured through](#) users’ ratings of the Wired iPad app on iTunes and found four main themes of dissatisfaction: functionality (the app felt too much like shovelware), technical glitches (downloads were slow or finicky), price (the cost was too high given the limited added value) and no availability of subscriptions (Mutter, 2010).

It’s understandable that these pioneering iPad news apps would fall short of perfection as the news industry scrambled to adopt an innovative news platform. Again, we should heed Palser’s warning not to dispense cheap criticism in these early stages of the iPad’s existence. But Palser also offers some salient thoughts on why it is so critical

for media outlets to get their iPad apps right. First impressions, she argues, are particularly important for iPad apps: "Unlike the interconnected Web, serendipity does not help users stumble upon apps over and over again. Downloading and testing an app is a conscious, deliberate effort. Each user's impression should be a great one" (Palser 2011, 51).

Millennials expect an interactive and immediate news experience, and the first wave of iPad news apps failed to deliver on those fronts. As Schonfeld (2011) [argued](#) in the influential blog TechCrunch:

... making these media apps social and realtime is the key. It should be constantly updated like a blog or Twitter. And it should be social like Flipboard that it shows me what people I follow are reading and retweeting elsewhere by unpacking their links into full articles, images, and videos.

For the past six decades, innovation diffusion theory has stressed the critical influence of early adopters who become change agents for new technological tools. The students who participated in this study are unlikely to become change agents for iPads as a news medium unless the apps cater to their expected gratifications of immediacy and interactivity: "Mere top-down diffusion of innovations [doesn't] guarantee long-term success" (Baran & Davis 2009, 273).

However, these students' attitudes may change as they use apps more frequently and as news organizations continue to improve and fine-tune their apps. The recent arrival of the iPad 2 should inspire future research tracking how millennials respond to the second round of iPad news applications.

References

- Baran, Stanley J. and Dennis K. Davis (2009). *Mass Communication Theory: Foundations, Ferment, and Future*. 5th ed. Boston: Wadsworth Cengage Learning.
- Briggs, Mark (2009). *Journalism Next: A Practical Guide to Digital Reporting and Publishing*. Washington: CQ Press.
- Carr, David (2010). "[The Media Equation: A Savior in the Form of a Tablet.](#)" The New York Times, January 3, 2010. Accessed via nytimes.com.
- DeFleur, Melvin L. (2010). *Mass Communication Theories: Explaining Origins, Processes and Effects*. Boston: Allyn & Bacon.
- Doctor, Ken (2011). "[The Newsonomics of Tablets Replacing Newspapers.](#)" Nieman Journalism Lab, January 6, 2011.
- Ferrante, Jonathan (2010). "App Culture." Paper presented at [33rd Annual Southwest Symposium](#), Southwest Education Council for Journalism and Mass Communication, Round Rock, Texas, November 5, 2010.
- Foust, James C (2008). *Online Journalism: Principles and Practices of News for the Web*. Scottsdale: Holcomb Hathaway Publishers.
- Gross, Doug (2010). "[CNN Releases 'Immersive' iPad app.](#)" CNN.com, December 14, 2010.
- Koblin, John (2010). "[Memo Pad: iPad Magazine Sales Drop.](#)" WWD, December 29, 2010.
- Koretz, David (2011). "[iDiots' Guide To Publishing on the iPad.](#)" Online Publishing Insider, January 13, 2011.
- Mutter, Alan (2010). "[How To Rescue Magazine Sales on iPad.](#)" Reflections of Newsosaur, December 30, 2010.
- Online Media Daily (2010). "[Gartner: Mobile to Outpace Desktop Web By 2013.](#)" MediaPost News, January 13, 2010. Accessed via mediapost.com.
- O'Reagan, Rob (2010). "[Economist on iPad Seeks to Replicate 'Immersive' Qualities of Print.](#)" Emediavitals.com, August 26, 2010.

Palser, Barb (2011). "[The Ins and Outs of iPad Apps.](#)" American Journalism Review, Spring 2011, 46-51.

Pegoraro, Rob (2010). "[Apple's iPad rules tablet market, but Samsung's Galaxy Tab Among Other Options.](#)" The Washington Post, December 26, 2010. Accessed via washingtonpost.com.

Pew Research Center (2010). [Millennials: A Portrait of Generation Next.](#) Pew Research Center, February 2010. Accessed via pewresearch.org/millennials.

Schonfeld, Erick (2011). "[iPad Mags Need a New Blueprint.](#)" TechCrunch, January 30, 2011.