

Emerging Media Channels : Mobile Tablet Powered News Dissemination

- Author** Marco Giardina
Academy of Journalism and Media, Faculty of Economics, University of Neuchâtel, Switzerland
Sensiel Research, Bern, Switzerland
marco.giardina@unine.ch
- Abstract** Thanks to mobile platforms like Pulse, Zite, News.me and, the one that started it all Flipboard: the phenomenon of mobile user-generated content is attracting increasing interest in the tablet media ecosystem. However, most of this attention has been media outlet centric, devoted to exploring news organization lack of audience and new revenue processes possibilities. The purpose of this paper is to examine the crowd-sourcing news filter role of users on mobile tablet magazines. In the tablet PC media landscape can social media human "sensors" constitute a valuable crowd-sourced filter against information deluge? What role will news organization have in a future in which audiences will shape news and information? Drawing on globally available mobile tablet-based news apps this essay explores emerging news dissemination channels. Conclusions suggest that, as many readers are going to make the print-to-tablet transition, news organization should be prepared with adequate technological and user centric business processes.
- Keywords** emerging media ; media curation ; mobile tablet news channels ; journalism norms.
- Citation** Giardina, M. (2012). Emerging Media Channels : Mobile Tablet Powered News Dissemination. In G. Latzko-Toth & F. Millerand (Eds.), *TEM 2012 : Proceedings of the Technology & Emerging Media Track – Annual Conference of the Canadian Communication Association (Waterloo, May 30 - June 1, 2012)*, http://www.tem.fl.ulaval.ca/www/wp-content/PDF/Waterloo_2012/GIARDINA-TEM2012.pdf

In the mid-1990s, the newspaper industry began to envision the possibilities the Web could hold for marketing their publications. The Web expanded the audience and revenue potential for news publishers while also allowing consumers to have instant access to highly visual, interactive and engaging news sources. The New York Times launched its Web edition in 1996; since then, most news organizations have been delivering content through the Internet (Chyi & Chadha, 2011). Propelled further by technological advances such as smartphones (e.g., Apple's iPhone), e-book readers (e.g., Amazon's Kindle) and tablet PC (e.g. Apple's iPad) news publishers explored news delivery through mobile devices and both American and European media companies have adopted a multi-platform 360-degree strategy commissioning content that is suitable for and available over more than one platform (Chyi & Chadha, 2011).

Although newspapers have always explored and embraced new technologies (Picard, 2005), media practitioners and scholars find themselves mired in a new debate on whether media corporations will reap the kind of profits they envisage or news consumers will adopt their new products with the readiness they expect and forecast (Chyi & Chadha, 2011).

Without a doubt, highlighting differences between Tablet PC news publications and online or traditional news channels represents a key research avenue for at least two reasons: a) it is functional to provide useful insights on how media companies can use emerging news dissemination channels to their advantage; and b) it poses the foundations for cultural explanations on the way readers consume media in a media-saturated environment where the traditional media are far from dead, and the new digital forms must compete with them and with each other (Bolter & Grusin, 2000).

The purpose of this study, therefore, is to explore emerging news dissemination channels with particular emphasis on the crowd-sourcing news filter role of users on tablet magazines. Drawing on a quantitative content analysis of news layout templates of magazines articles gathered from tablet PC news services, this study provides some explorative ideas on how media companies can exploit key state-of-the-art technologies enabling an immersive experience and, leverage participatory culture creating a deeper and more authentic reader experience.

In accordance with the article's goals, this study briefly analyzes the impact of this new layer of tablet-enabled complexity in news media production and consumption stakeholders: users, news organizations, advertisers and society. First, it provides a brief conceptual background on tablet-PC news services. Second, it reports the results of a content analysis on 350 articles gathered from mainstream and emerging tablet-PC news services. Finally, it summarizes emerging patterns and associated challenges of tablet PC based newspapers and magazines consumption, describing how user digital profiles might affect the future tablet magazines.

1. Conceptual framework

A number of studies have concerned themselves with how organizations have adapted their strategies to deal with media convergence (Chon, Choi, Barnett, Danowski, & Joo, 2003; Jenkins, 2004, 2006; Zavoina & Reichert, 2000) and the social implications of the Internet (DiMaggio, Hargittai, Neuman, & Robinson, 2001). With more and more content available on multiple platforms (O'Reilly, 2007), it is widely accepted that the so-called age of media convergence has actually arrived (Doyle, 2010). The migration to multi-platform has been characterized by the introduction of a 360-degree commissioning meaning that new ideas for content are considered in the context of a wide range of distribution possibilities and not just linearly (Parker, 2007).

New technologies have spurred on the development of new forms of multimedia content involving interactivity (Kioussis, 2002; Liu & Shrum, 2002; Schultz, 2000) and multiple layers and also the development of converged devices (such as mobile phone/media players). It can be argued that in the digital space, news organization offer depends not only on strategic decisions but also on external content and platforms leading services such as: a) on Web aggregators (such as Google) and on Social Media (Twitter, Facebook, YouTube); b) in the mobile smartphones/tablets arena on specific manufacturer solutions (e.g. Apple iOS, Android). To make the scenario even more complex users are now much more in control of their personal news consumption and, if not directly involved in participatory or civic forms of news production, will play a key role in supporting news filtering.

1.1. Tablet-PC newspapers

For more than a decade, electronic tablets, as originally proposed in the early 1990s by new media visionary Roger Fidler (Fidler, 1997), have been conceptualized in various form failing to gain much traction with consumers. But, in the last few years, the number of sophisticated tablet computers hitting the store shelves heated up again notably with the release of a) the Amazon Kindle e-book in 2007; b) Barnes & Noble' Nook eBook reader in 2009 and c) Apple's iPad in 2010 (Grabowicz, 2012). A 2012 survey showed that by January 2012, 19 percent of U.S. adults owned a tablet computer, 19 percent owned an eBook reader, and 29 percent owned one or the other (PEW, 2012b). The rapid penetration of tablet PC is revolutionizing media consumption, expanding the options that consumers have to consuming media and has attracted media scholars attention (Flew, 2010; Kvernplassen, 2011; PEW, 2012a).

Therefore, the timing for exploring emerging tablet computer news dissemination channels is right. Flew (2010) has proposed a set of five criteria to evaluate iPad news services: a) **Content**: timeliness; archive; personalization; content depth; advertisements; the use of multimedia; and the extent to which the content was in sync with the provider brand; b) **Usability**: degree of static content; ability to control multimedia; file size; page clutter; resolution; signposts; and customization; c) **Interactivity**: hyperlinks; ability to contribute content or provide feedback to news items; depth of multimedia; search function; ability to use plug-ins and linking; ability to highlight, rate and/or save items; functions that may facilitate a community of users; d) **Transactions capabilities**: ecommerce functionality; purchase and download process; user privacy and transaction security; and e) **Openness**: degree of linking to outside sources; reader contribution processes; anonymity measures; and application code ownership.

As journalism senior lecturer Paul Grabowicz (Grabowicz, 2012) nicely summarized: "the increased popularity of portable tablet computers has sparked debate over whether the devices will finally gain widespread consumer acceptance and whether news organizations will be able to take advantage of them as a new, and potentially profitable content delivery platform". Grabowicz (2012) has identified two key aspects related to tablet PC adoption: a) tablet display formats; and b) how people use the iPad. As for tablet display formats, a key question is what

form publications and digital narratives will take on tablets and whether people will prefer using a Web browser or a dedicated application (app) to access content. A recent survey (Miratech, 2011) found people prefer a dedicated app but other surveys found that, despite 75% of tablet users have a news app installed in their iPads, Web browser was still the more popular way to consume news (PEW, 2011) mostly because websites are displayed pretty well on an iPad (Nielsen, 2011). How people use the iPad has also recently been scrutinized by surveys on: a) time spent on a tablet (Klapen, 2010; Localytics, 2011; PEW, 2011); b) when people read on a tablet (Readitlater, 2011); c) user willingness to pay for news (Lee, 2011; Nielsen, 2011; PEW, 2011); and e) advertising on a tablet (Wang, 2011).

Given their form factor, which is designed to allow interaction and to engage the user (McPherson, Gray, & Wood, 2004), tablet PC are perfectly suitable to accommodate interactive digital news services. Tablets have the potential to define the next generation of news services and television formats and hold the potential to allow news producers to monitor the user's behavior in real-time and to react accordingly (Verwaest et al., 2011). Media scholars have argued that the Tangible User Interface (TUI) which include accelerometers, geo-localization systems and the multitouch screen —where the reader can pinch, tap, swipe and drag elements to trigger actions— allow mobile devices to create a sense of immediacy as interaction happen directly with digital information rendered on the screen and bringing back the physicality lost in the transition from print to web (Frizzera & Rowe, 2012).

1.2. Participatory culture on Tablet PC

In recent years, a revolutionary shift has taken place in the way readers consume news (Domingo et al., 2008; Singer et al., 2011) and the social network of a reader is quickly becoming their personalized news wire (Kwak, Lee, Park, & Moon, 2010). Users have gone from consuming news through traditional media and news websites to having the news broadcast to them by their social graph (Bonneau, Anderson, Anderson, & Stajano, 2009; Ellison, 2007). Readers who still actively seek out the news want, and almost expect, it to be personalized and customized to their interests (Bowman & Willis, 2003). News organizations, social networks and technology companies are all attempting to respond with news services that address this changing shift toward a personalized social news stream (Kaplan & Haenlein, 2010). The shift toward

personalization of news is in many ways a response to the problem of digital deluge, but also a shift from trust in news organizations to the individual known people who now often act as curators (Rosenbaum, 2011).

Traditional publishing company have launched their tablet PC version of their news products and sometimes received some critics (Carlson, 2010) but applications available on tablets devices such as the iPad have not been a great example of participatory culture (Kawohl, 2011). Remarkably a handful of emerging mobile platforms like News.me¹, Paper.li², Pulse³, Zite⁴, and the one that started it all Flipboard⁵, that fuel their content by social media feeds, are emerging. For example, with Flipboard and Paper.li, users are asked to compile their own magazine by choosing from a range of media producers or social feeds (e.g. Facebook, Twitter, Youtube) and curate topics of interest or consume curated news experiencing novel, often inherently crowd sourced, media narratives. Despite mainstream news organization skepticism in readers to take over decisions in the news production creative process or give over vital content creation into the hands of their audience, the importance of interacting with their respective readership cannot be denied (Kawohl, 2011).

2. Research Questions

Given the above conceptual background, this study general research question is twofold. First, to explore to what extent tablet computer news services, in the framework of gatewatching journalism theories (Bruns, 2005), benefit from social media human “sensors” potential drawing on different typologies of user generated content. Here the focus of the analysis is on content and interactivity news tablet PC evaluation criteria (Flew, 2010). Second, to evaluate which types of tablet PC published stories differentiate emerging from established publishing companies. Answers to these questions does not allow conclusions about how readers and media companies —both emerging and established ones— interact in the news production and dissemination process in

¹ <http://www.news.me>, last accessed on 25.5.2012

² <http://www.paper.li>, last accessed on 25.5.2012

³ <http://www.pulse.me>, last accessed on 25.5.2012

⁴ <http://www.zite.com>, last accessed on 25.5.2012

⁵ <http://www.flipboard.com>, last accessed on 25.5.2012

tablet PC as opposed to other media channels. The main goal is to determine how many features in tablet PC news dissemination platforms are provided at all, which support crowd-sourced powered news production process. The following more specific research questions have been examined :

- RQ1 : How many multimedia and social media elements are used tablet PC by emerging news services ?
- RQ2 : How many multimedia and social media elements are used tablet PC by established publishing companies ?
- RQ3 : Which types of stories are disseminated trough tablet PC by emerging news services ?
- RQ4 : Which types of stories are disseminated trough tablet PC by established publishing companies?

3. Methodology

To answer the research questions, two research methods were applied: first, a selection of tablet PC news services have been analyzed to explore core characteristics of news dissemination formats of both emerging and established publishing companies; second, typologies of news coverage's, multimedia and social media elements have been investigated through an explorative content analysis of news articles created by digital publishing outlets or sourced trough users digital profiles, to evaluate the potential of tablet PC news services to constitute a crowdsourced filter of social media content.

3.1. Sample

For the purpose of exploring the typologies of stories adopted within tablet computers news services by both emerging (RQ3) and established (RQ4) publishing companies an explorative content analysis on 350 selected tablet PC news coverage's has been performed. The investigation has mainly focused on the breaking news, daily and weekly news coverage'. The sample included Flipboard (150), Zite (50), The New York Times (50), BBC news (50), News.me (50) news coverage's. The news coverage' in Flipboard, Zite and New.me where gathered drawing on different curators digital profiles and The New York Times and BBC news tablet PC news coverage's were included as a comparison.

Since tablet PC news coverage's are often an aggregation of digital media content, several themes and sources could be found in specific news coverage and were used as a unit of content (Reese & Ballinger, 2001). For each news coverage's the following variables were observed and coded SM: Stories curated using automatic algorithm that drives from users digital profiles (Giardina, 2012), SC: Stories curated from magazine's editors from external curators, S: original stories created by internal professional journalists, P: Photos, V: Videos, T: tweets and M: maps. If a specific source has been observed, the coder has coded 1 otherwise he has coded 0 (ref. Appendix 1). The statistical software R has been used to analyze the reliability of the gathered data.

3.2. Intercoder Reliability

To assess intercoder reliability, the independent coders double-coded 50 randomly selected news coverage's (14.3% of the sample). To determine reliability, the researchers used Krippendorff's α (Krippendorff, 2004) measuring intercoder reliability of SM (Stories curated using automatic algorithm that drives from users digital profiles), that has been equal to 0.887 which means that 88.7% agreement is what can be expected by chance. SC (Stories curated from magazine's editors) and S (original stories created by professional journalists) reliability indexes have been calculated with α normal and have been equal to 0.853 and 0.862 respectively.

4. Highlights of findings and Discussion

The sample included 250 (71.4 %) emerging tablet-PC news services and 100 (28.6%) articles gathered from mainstream publishing companies (BBC News, The New York Times, The Guardian). We do not claim that the analyzed sample is exhaustive, though the considered classification criteria and interjudge reliability evaluation approaches were chosen to guarantee reproducibility and objectivity of the analysis as evaluating the effectiveness or subjectively assessing the journalistic quality of the tablet PC disseminated stories was beyond the scope of the study.

4.1. Multimedia and social media elements

Within the sample 310, 5 and 1 used photos, videos and maps respectively. Social media and sharing possibilities —Twitter, LinkedIn, e-mail— were observed in 71.4% of the stories.

4.2. Types of Stories

The content analysis shows (ref. Table 1) that only tablet PC emerging news services (RQ3) disseminate both stories curated from magazine’s editors SC (60%) and stories assembled drawing on user’s digital profiles SM (40%). Tablet PC mainstream media news services disseminate only stories written by their professional reporters preserving their gatekeeping traditional role and do not allow drawing stories from digital profiles (RQ4).

Table 1 — Type of stories and multimedia sources in mainstream and emerging media tablet PC news magazines.

Source Type	Overall proportion (N=350)	Mainstream media (N=100)	Emerging Media (N=250)
SC: Stories curated from magazine’s editors from external curators	42.9%	-	60.0%
SM: Stories curated using automatic algorithm that drives from users digital profiles	28.6%	-	40.0%
S: original stories created by internal professional journalists	28.6%	40.0%	-
P: Photos	88.6%	60.0%	100.0%
V: Videos	14.3%	40.0%	4%
T: tweets	71.4%	-	100.0%
M: maps	2.9%	10.0%	-

Note: Totals may not add to 100% because of rounding error.

Drawing on the conceptual framework and on our empirical explorative analysis of emerging tablet PC news services of both new players and mainstream publishing companies, our preliminary results confirm that, tablet PC news are becoming a valid alternative and/or complement to

Web and printed news channels. Findings of this study, however, show that the analyzed legacy news organizations do not yet exploit the full potential of the crowd-sourcing role of human sensors. Curated narratives from user generated content are at the core of emerging news services but are not a widely accepted tool within established publishing companies.

At the moment, many legacy media companies seem reluctant to actively drive news innovation in emerging news dissemination channels. As a result, while most of them are represented on the tablet PC sphere, they do not necessarily employ the specific tools at their disposal. Moreover, many legacy media journalists, with the advent of crossmedia platforms, have seen their daily tasks duties explode as opposed to emerging news channels ones which are often start-ups focused to innovate in one specific news channel and service.

In the framework of journalism research, three core realities need to be carefully scrutinized : 1) the balance between gatekeeping/gatewatching journalism role; 2) journalistic quality assessment and 3) news organization role in the tablet PC media landscape.

As for the claim that Tablet-PC news services allow a further step towards gatewatching is still too early to draw relevant conclusions because the gatewatching role is applied mainly by emerging news services and not (yet) by mainstream publishing companies. The latter, as confirmed by the content analysis, tend to maintain their gatekeeping role with stories created and edited in a somewhat conventional way without relying dynamically on the user digital profile. As for the journalistic quality assessment it can be highlighted that tablet PC emerging news services allow the users some sort of digital media sources verification although there is not (yet) a standardized process and the verification process e.g. of tweets is not reliable. Tablet PC mainstream media news services rely on traditional journalism quality norms mostly at editorial level and resist drawing their stories from users digital profiles to safeguard their core gatekeeping function and their existential creative means. With respect to news organization role in the tablet PC media landscape mainstream news organization are experimenting novel news dissemination platforms, mostly adapting their content from existing dissemination channels (print, web, TV) but still lack behind, when compared to emerging news services, when it comes

to sourcing their stories from the user digital profiles. Preserving their gatekeeping traditional role it is not related to technological constraints nor to newsroom skills but mostly influenced by corporate strategic decisions.

Future research avenues should focus on the role of tablet PC in remediation (Bolter & Grusin, 2000) of older media. More studies to analyze how users are using the Tangible User Interface (TUI) and their perception on the emerging news services that draw on theirs or their social graph digital profiles are also needed.

References

- Bolter, J. D., & Grusin, R. (2000). *Remediation: Understanding new media*: The MIT Press.
- Bonneau, J., Anderson, J., Anderson, R., & Stajano, F. (2009). Eight friends are enough: social graph approximation via public listings. Paper presented at the Proceedings of the Second ACM EuroSys Workshop on Social Network Systems.
- Bowman, S., & Willis, C. (2003). *We media*. How audiences are shaping the future of news and information.
- Bruns, A. (2005). *Gatewatching: Collaborative online news production* (Vol. 26): Peter Lang Pub Inc.
- Carlson, N. (2010). Steve Jobs Hated The New York Times iPad App – So They Made A New One. Retrieved from http://articles.businessinsider.com/2010-10-15/entertainment/30027729_1_app-store-ipad-app-apple-ceo
- Chon, B. S., Choi, J. H., Barnett, G. A., Danowski, J. A., & Joo, S. H. (2003). A structural analysis of media convergence: Cross-industry mergers and acquisitions in the information industries. *The Journal of Media Economics*, 16(3), 141-157.
- Chyi, H. I., & Chadha, M. (2011). News on new devices. *Journalism practice*, 1-19. doi: 10.1080/17512786.2011.629125
- DiMaggio, P., Hargittai, E., Neuman, W. R., & Robinson, J. P. (2001). Social implications of the Internet. *Annual review of sociology*, 307-336.
- Domingo, D., Quandt, T., Heinonen, A., Paulussen, S., Singer, J. B., & Vujnovic, M. (2008). Participatory journalism practices in the media and beyond. *Journalism practice*, 2(3), 326-342.
- Doyle, G. (2010). From Television to Multi-Platform. *Convergence: The International Journal of Research into New Media Technologies*, 16(4), 431.
- Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer - Mediated Communication*, 13(1), 210-230.
- Fidler, R. F. (1997). *Mediamorphosis: Understanding new media*: Pine Forge Pr.
- Flew, T. (2010). What will the Apple iPad deliver for newspapers ?
- Frizzera, L., & Rowe, A. (2012). *Remediating Magazines Using Tablet's Tangible User Interface*.
- Giardina, M. (2012). *Social Search: Leveraging Digital Profiles?* (Forthcoming). Paper presented at the 7th Annual Conference: Profiles, Ottawa, Canada.
- Grabowicz, P. (2012). The transition to digital journalism. Retrieved from <http://multimedia.journalism.berkeley.edu/tutorials/digital-transform/tablets/>
- Jenkins, H. (2004). The cultural logic of media convergence. *International journal of cultural studies*, 7(1), 33-43.
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*: NYU press.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.

- Kawohl, C. (2011). *Magazines in a Digital Lunchbox: How Can Magazines on Tablet Devices Like the Apple iPad Help Evolve Editorial Design and Reader Experience?* : GRIN Verlag.
- Kiousis, S. (2002). Interactivity: a concept explication. *New media & society*, 4(3), 355.
- Klapen, D. (2010). *Condé Nast Study Concludes iPad Is Not A Mobile Device (At Least Not Now)*.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*: Sage Publications, Inc.
- Kvernplassen, A. (2011). *Bundling and payment models for tablets-revenue possibilities for Swedish newspapers*
- Kwak, H., Lee, C., Park, H., & Moon, S. (2010). *What is Twitter, a social network or a news media ?*
- Lee, E. (2011). *iPad Users Prefer Advertising to Pay Model for Content*. Retrieved from <http://adage.com/article/digital/ipad-users-prefer-advertising-pay-model-content/148247/>
- Liu, Y., & Shrum, L. (2002). *What is interactivity and is it always such a good thing? Implications of definition, person, and situation for the influence of interactivity on advertising effectiveness*. *Journal of advertising*, 53-64.
- Localytics. (2011). *Games, News Apps Top iPad User Engagement Categories*.
- Miratech. (2011). *It's hard to browse the web with an iPad*.
- Nielsen. (2011). *State of the media: U.S. digital consumer report*.
- O'Reilly, T. (2007). *What is Web 2.0 : Design patterns and business models for the next generation of software*.
- Parker, R. (2007). *Focus: 360-Degree Commissioning*. Broadcast, September 13th, 11.
- PEW. (2011). *The Tablet Revolution*.
- PEW. (2012a). *Mobile Devices and News Consumption: Some Good Signs for Journalism*.
- PEW. (2012b). *Tablet and E-book reader Ownership Nearly Double Over the Holiday Gift-Giving Period*.
- Picard, R. G. (2005). *Unique characteristics and business dynamics of media products*. *Journal of Media Business Studies*, 2(2), 61-69.
- Readitlater. (2011). *Is Mobile Affecting When We Read ?*
- Reese, S. D., & Ballinger, J. (2001). *The roots of a sociology of news: Remembering Mr. Gates and social control in the newsroom*. *Journalism & Mass Communication Quarterly*, 78(4), 641-658.
- Rosenbaum, S. (2011). *Curation nation. How to win in a world where consumers are creators. Why the future of content is context*.
- Schultz, T. (2000). *Mass media and the concept of interactivity: An exploratory study of online forums and reader email*. *Media, culture & society*, 22(2), 205-221.
- Singer, J. B., Hermida, A., Domingo, D., Heinonen, A., Paulussen, S., Quandt, T., . . . Vujnovic, M. (2011). *Participatory journalism*: Wiley Online Library.

Wang, A. (2011). Digital Ad Engagement : Perceived Interactivity as a Driver of Advertising Effectiveness. Retrieved from http://blogs.adobe.com/digitalpublishing/files/2011/01/digital_magazine_ad_engagement.pdf

Zavoina, S., & Reichert, T. (2000). Media convergence/management change: The evolving workflow for visual journalists. *The Journal of Media Economics*, 13(2), 143-151.

 Except where otherwise noted, this work is licensed under <http://creativecommons.org/licenses/by-nc-nd/3.0/>