

Community Broadcasting: Publics, Participants and Policies

7. Digital Convergence

The demise of traditional radio and television broadcasting, resulting from the development of new digital technologies, has been forecast for decades now. Yet these legacy broadcasters, including commercial, public service and community types, have yet to succumb. The new competition created by digital technology comes in the form of new terrestrial delivery systems and streaming for curated linear content, and also online social media networks. Community broadcasting appears to be in a somewhat unique position of both strength and weakness in this new media landscape, not only from the point of view of consumers, but also of markets and regulators.

Traditional terrestrial means of radio broadcasting (via FM), and television broadcasting (via long wave and/or cable systems) have been the dominant technology in most of the world since the mid 20th century (Alinsky 1988). Broadcasters, who for generations were secure in their positions mandated by licenses in a limited frequency spectrum or exclusive cable system, now are challenged by new technologies both in the terrestrial/cable sphere, as well as online technology utilizing non-terrestrial internet protocol (IP) delivery. In addition, new digital online applications have enabled the rise of social media as a viable alternative to traditional media forms.

Terrestrial delivery technologies are evolving, as evidenced by the migration of terrestrial television broadcasts from analog to digital service in most of Europe and North America in the 1990s. Along with the digitalization of cable TV systems, television in the traditional terrestrial/cable platforms successfully improved the technical quality of its broadcasts by agreeing on a single new digital technology. Thus, high-definition television is now the standard for much of the developed world (Cianci 2012). Radio broadcasters, however, have struggled to adopt new terrestrial transmission technologies, despite the implementation of terrestrial digital technologies such as Digital Audio Broadcast (DAB)¹ and Digital Radio Mondiale (DRM)² by regulators and practitioners (Goddard 2010). The fragmentation of the sector, the efficiency

and effectiveness of FM, and the lack of substantial benefits in coverage or quality offered by the new digital terrestrial technologies have all slowed adoption (O'Neill 2010).

For community broadcasters, similar to their counterparts in the commercial and public service sectors, the present technological delivery platforms for television and radio appear to be sufficient to sustain the media in the short term. Retaining FM and cable delivery systems is especially important to community broadcasters, as they have limited resources to invest in new transmission technologies, and are likely to be at a disadvantage to their more powerful commercial and public service counterparts when competing for access and control over the new technologies. Community broadcasters fear what is commonly referred to by activists and practitioners as the "analog ghetto", where the losers of the competition for new digital terrestrial broadcast transmission technologies are relegated to the old technologies, and facing potential shutoff by regulators (Oakley and O'Connor 2015). Meanwhile, as the competition over adoption of these new terrestrial delivery technologies continues, the migration of consumers to IP for receiving (and delivering) audio and video programs increases every year (Frank 2004).

IP delivery (via connection to the World Wide Web) debuted as an extension of terrestrial output for radio and TV in the latter 20th century. Its continued growth in uptake not only has increased its role as an extension of terrestrial delivery, but also has been championed to incrementally replacing terrestrial as the primary delivery platform for many broadcasters. IP delivery offers broadcasters the power and reach extending beyond their terrestrial coverage area to now deliver their content virtually anywhere in the world. Thus, webcasting is seen by many as the ultimate solution to the questions of access and participation for alternative broadcasters, based on the low barriers to entry and universal distribution capabilities of the technology (Singer 2013). Indeed, thousands of existing terrestrial stations stream content via IP similar to their commercial and public service counterparts, and many community broadcasters have launched new radio and television streams via exclusive IP transmission. In addition, research initiatives in conjunction with community broadcasters have explored how programming is archived and then distributed online, showing community broadcasters how to increase the online accessibility of their programs³.

Migration of online users away from traditional legacy media is well underway, as younger individuals are abandoning traditional terrestrial and cable delivery at high rates. Findings from the Adobe Digital Index survey for 2014 in the USA reported a 380% increase in online television viewing among the age 18-34 demographic compared to the same period in 2013, with 71% of their online television viewing via mobile devices (Wohlsen 2014). The take-up of online radio is also apparent, as evidenced by the USA Edison Research survey of 2015, which reported that for

the first time, more adults aged 12+ listened to online radio than listened to terrestrial radio (figure 4.1) ⁴. While the platforms for linear delivery radio and television evolve, consumers are apparently still finding the familiar broadcasting content to which they are accustomed.

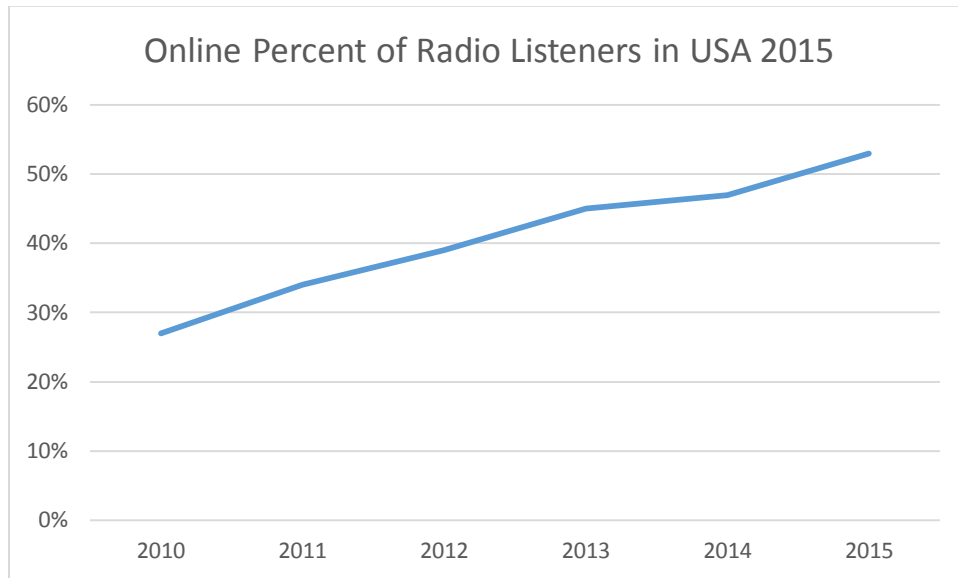


Figure 1. Online Radio Listening in USA 2105. Edison Research 2015

This migration to IP delivery however, is not without substantial issues for the broadcasters and consumers. As consumers migrate to mobile platforms, the wireless networks that support them are not of sufficient scale to accommodate current terrestrial usage levels, and are not projected to do so using existing streaming technology. Data security is also an important issue, because IP technologies can reveal a receiver's address and identity, which exposes them to the potential for unwanted intrusion and surveillance by third parties (Shipman-Wentworth 2014). Questions of access and power within the context of net neutrality are also present in the online paradigm, similar to its terrestrial predecessor. For example, a standardized sustainable business model of online broadcasting is far from established, as most online music services and commercial radio streams have struggled to generate sufficient revenue to offset streaming and royalty expenses. It appears that advertisers just don't value these online services similar to their terrestrial counterparts. An important issue for community broadcasters regarding webcasting is the incremental costs of streaming, in which each listener or viewer is connected to the IP broadcast by an individual stream. Unlike the "one to many" fixed-cost model of terrestrial delivery, the online broadcaster must pay for every stream, incurring increasing costs as listenership/viewership increases.

Nevertheless, migration of online users away from traditional legacy media is well underway, as younger demographics are abandoning traditional terrestrial and cable delivery at high rates. The Nielsen television survey for 2015⁵ reports that in the USA:

-Teens (12-17) watched 17 hours of traditional TV per week in Q3, an 11.5% drop year-over-year and a 30% contraction from 2011;

-Older Millennials (25-34) watched 21 hours and 10 minutes per week in Q3, an 8.6% decrease year-over-year and a 23.8% drop from 2011;

-Gen Xers (35-49) watched 28 hours and 41 minutes per week, a 3.4% decrease year-over-year (equating to 1 hour per week) and a 10.7% contraction from 2011;

As Figure 8 shows, the take-up of television viewing for younger demographics via IP continues to grow, as more 18-24 aged viewers are using online delivery than traditional live delivery.

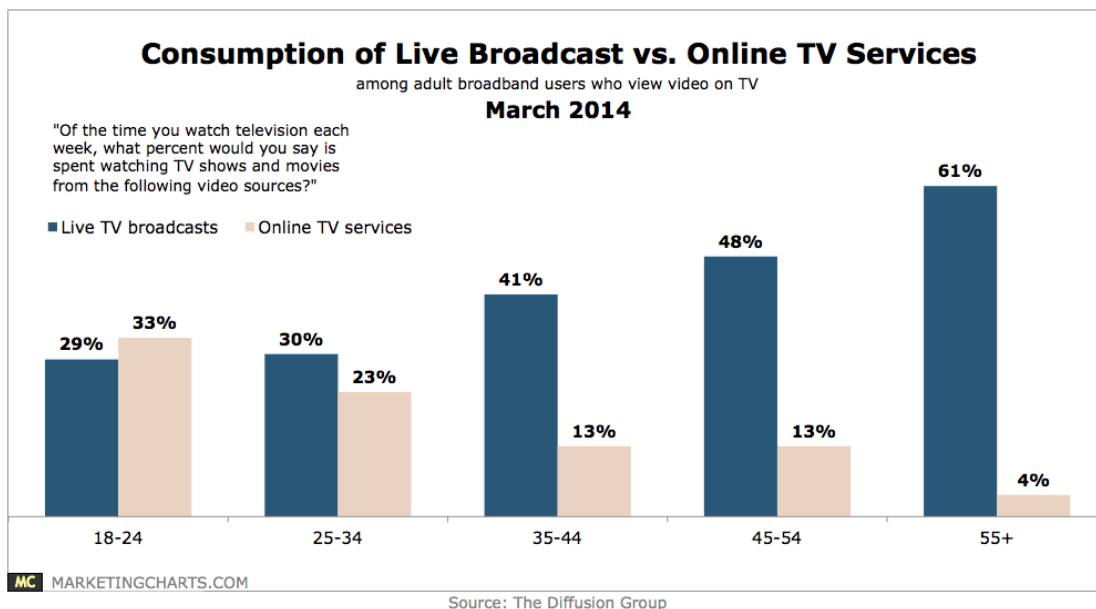


Figure 8: Nielsen 2015 Survey Results - Television Consumption

⁵ The complete Nielsen survey results and marketing charts are available here:

<http://www.marketingcharts.com/television/are-young-people-watching-less-tv-24817/>.

The take-up of online radio is also apparent, as evidenced by the USA Edison Research survey of 2015⁶, which reported that for the first time, more adults aged 12+ listened to online radio than listened to terrestrial radio (Figure 9). While the technology appears to be driving the migration to new platforms, individual citizens, groups and communities still are apparently finding on these new platforms the familiar broadcasting organizations and content to which they are accustomed.

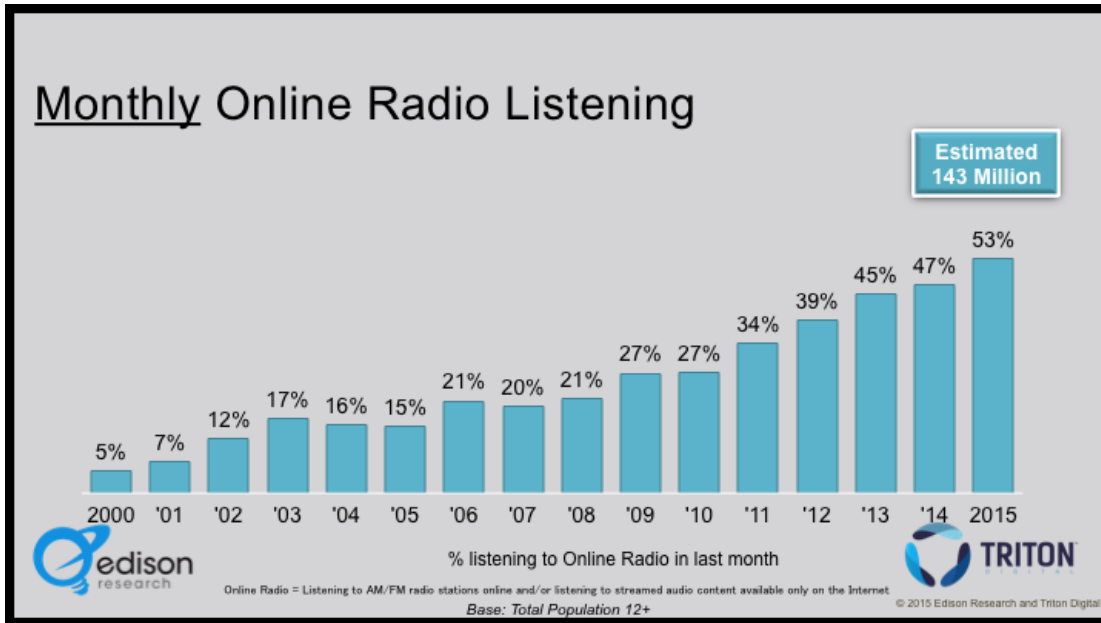


Figure 9: Edison Research Survey 2015 - Online Radio Listening

Ironically, similar to their terrestrial predecessors, online community broadcasters may be uniquely qualified to prosper as a result of their commitment to the values of “not-for-profit”, “user-generated”, “social and political representation”, which may have greater importance in this new environment. Regardless of technology, broadcasting seems destined to continue in some form. Mathew Lasar (2016) writes:

Radio 2.0 is a very uncertain world. But I argue that what is certain is that we need audience based radio. It may come in the form of AM/FM, podcasts, webcasting, mobile streaming, or even YouTube. But whatever the form, we need synchronous audio broadcasting that brings all of us into the same social

⁶ The complete Edison Research survey 2015 can be viewed here: <http://www.edisonresearch.com/the-infinite-dial-2015/>.

spaces to recognize our commonalities, or to consider what needs to be done to bridge our differences.

Social media is also seen as having a profound effect on traditional broadcast media forms. Jurgen Habermas, in *The Structural Transformation of the Public Sphere*, his 20th century proposed solution to revitalizing a truly democratic public sphere/s, could not have envisioned the technological turn taken in the development of new online social media platforms. Computer-networked communication systems have introduced the potential for more participatory democracy through a multiplicity of information sources and forums for discourse (DeLuca and Peebles 2002, Castells 2008). David Winston (2010) writes that the internet has created a new digital public sphere by facilitating the "Four C's" of the digital world "communications, content, collaboration, and community that will revolutionize democratic participation". Like its traditional broadcasting counterparts, this new digital meeting place is populated by interests from across the societal spectrum, all pursuing their own agendas. The rise of social media has expanded the public sphere/s into new territories and possibilities where participants and communities can transmit images and ideas with greater speed and power than ever before (Brooks 2014, Macek 2016).

While many scholars have written about the role of social media in extending the concept of the public sphere/s, much of the theory and research focuses on the use of social media by elites, connecting with citizens in outward public relations and marketing functions (Wright 2007, Jackson and Lilleker 2009, Poell and van Dijk 2016). However, ordinary citizens and their communities also connect and communicate online in social media networks of many varieties, all of which can effectively create and transmit cultural and political discourse (Romero and Molina 2011). These "third space" online forums facilitate discussions cultivating political agency, solidarity, and community that can activate individuals and groups to organize and mobilize into political action (Oldenburg 1989). Wright, Graham and Jackson (2015) argue that it is actually the online spaces not specifically devoted to political ideology that facilitate a large amount of political discourse by participants mixing it in with their non-political everyday discussions. These community-based forums are what Papacharissi (2011, 78) calls "spaces that are friendlier to the development of contemporary civic behaviors".

Virtual online communities of interest that characterize new online social media forms have added to the mass media options for actors' connectedness and participation. Social media has also added great vigor to debates over the primacy of proximity in identifying communities. Numerous scholars (Kollock and Smith 1999, Marinov and Schimmelfennig 2015) exhibit optimism about the potential for social media to eliminate the need for proximity, as virtual identity communities successfully connect and transmit content in multiple directions.

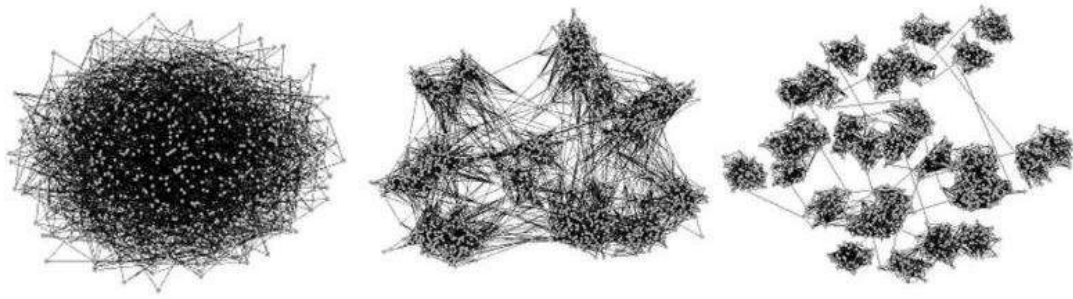


Figure 10. Identity Communities in Social Networks. Centola 2015

Centola (2015) suggests that social media's connectedness is actually enhanced by the self-imposed boundaries of identity communities (see Figure 10). However, despite the widespread adaptation of the term “community” by social media, other scholars remain skeptical (O’Connor 2008, LoPresti 2013). Tom Sander (2008, 15) cautions against “romanticizing” online communities, suggesting that “just calling something a community doesn’t make it one. This all needs to be empirically tested”.

Traditional community broadcasters are also using social media tools and applications for their content delivery and discourse, constructing a new social reality online with technological optimism (Krier and Gillett 1985, Jenkins 2006). However, these new sites of participation which constitute an ostensibly sustainable platform for the new digital public sphere/s, are chiefly owned and controlled by commercial media. The stunning financial success and power of these commercial enterprises in this new social media realm has prompted debates that connect back to Habermas' original concept of a public sphere co-opted by the rise of dominant media exerting their power to control and direct passive consumers. In today’s online-driven society, a few social media sites now command large shares of usage, and a strikingly small group of telecommunications operators dominate the ownership of communications networks that form the backbone of the new digital public sphere/s (Cringely 2014).

Thus, the battle for control of this new social media paradigm is taking place not only on screens and networks, but also in board rooms, stock exchanges and legislative bodies. As traditional mass media (including community broadcasters) see their business models disrupted by social media, they struggle to evolve successfully, seeking to retain their participants and primacy in the new digital public sphere (Singer 2013). These linear delivery curators of audio and video are exploring new social media user-generated platforms for their content delivery in a digital convergence strategy (BBC 2016). Indeed, scholars and practitioners argue that the successful future of community broadcasting may lie in the strength of the communities themselves as generators of branded content; re-curated and re-transmitted by users across a spectrum of online social media channels (Jenkins 2006, Perrin 2015).

Media policy-makers and regulators, delineated by national boundaries and types of media platforms, have traditionally managed the public sphere of terrestrial broadcasting, ostensibly for the benefit of democratic ideals. Now however, they are challenged to conceptualize the public sphere/s in this new digitally converged environment, implementing policies that adapt to the way participants use both old and new technologies, especially social media. Jonathan Stray (2011, 9) writes "what we have now is an ecosystem, and in true networked fashion, there may never again be a central authority".

Notes

¹ More information about Digital Audio Broadcast can be accessed here: <http://recnet.com/dab>.

² More information about the radio broadcast technology of Digital Radio Mondiale is here: http://www.drm.org/?page_id=110.

³ The report about the Creative Approaches to Living Cultural Archives is here: <http://cmds.ceu.edu/sites/cmcs.ceu.hu/files/attachment/article/955/captchafinalreport20160215.pdf>.

⁴ The complete Edison Research survey 2015 can be viewed here: <http://www.edisonresearch.com/the-infinite-dial-2015/>.

References

- Alinsky, M. (1988). *International Handbook of Broadcasting Systems*. Westport, CT.: Greenwood.
- Briggs, A., and P. Burke. (2009). *A Social History of the Media; From Gutenberg to the Internet*. Cambridge, UK: Polity Press.

British Broadcasting Corporation (BBC). (2016). "BBC Three moves online after final night as TV channel". <http://www.bbc.com/news/entertainment-arts-35578867>

Accessed 16.2.2016

Centola, D. (2015). The Social Origins of Networks and Diffusion. *American Journal of Sociology*. Volume 120, Number 5.

Cianci, P. (2012). *High Definition Television*. Durham, NC.: McFarland.

Cringely, R. (2014). "AT&T on Net Neutrality: He Who Controls the Pipes Controls the Universe". Infoworld. <http://www.infoworld.com/article/2847532/cringely/att-on-net-neutrality-controls-pipes-controls-universe.html> Accessed 31.1.2016.

DeLuca, K., and J. Peebles. (2002). "From Public Sphere to Public Screen: Democracy, Activism and the Violence of Seattle". *Critical Studies in Media Communication*. 19(2002): 125-151.

Frank, B. (2004). "Changing Media, Changing Audiences. Communications Forum - Massachusetts Institute of Technology". http://web.mit.edu/comm-forum/forums/changing_audiences.html Accessed 25.1.2016.

Goddard, G. (2010). *DAB Digital Radio: Licensed to Fail*. London, UK: Radio Books.

Jackson, N. and D. Lilleker. (2009). "Building an Architecture of Participation? Political Parties and Web 2.0 in Britain". *Journal of Information Technology & Politics*. 6(3/4), pp. 232 – 250.

Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. New York University Press: New York.

Kollock, P. and M. Smith. (eds). (1999). *Communities in Cyberspace*. London: Routledge.

Krier, J. and C. Gillett. (1985). "The Uneasy Case for Technological Optimism". University of Michigan Scholarship Repository. <http://repository.law.umich.edu/cgi/viewcontent.cgi?article=1927&context=articles> Accessed 3.2.2016

Lasar, M. (2008). "NPR's War on Low Power FM: The Laws of Physics Versus Politics". ARS Technica. <http://arstechnica.com/uncategorized/2008/04/nprs-war-on-low-power-fm-the-laws-of-physics-vs-politics/> Accessed 20.3.2016.

Macek, J. (2016). "Post-Televizní Publika? Stahování a Konvergentní Vztah k Populárním Obsahům". Lecture. New Media Inspiration. Charles University. Prague, Czech Republic. 13.2.2016.

- Marinov, N. and F. Schimmelfennig. (2015). 'Does Social Media Promote Civic Activism? Evidence from a Field Experiment', Center for Comparative and International Studies. Zürich: ETH.
- Oakley, K. and J. O'Connor. (eds.). (2015). *The Routledge Companion to the Cultural Industries*. London: Routledge.
- Oldenburg, R. (1989). *The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlours, General Stores, Bars, Hangouts, and How They Get You through the Day*. New York: Paragon House.
- O'Neill, B. (ed). (2010). *Digital Radio in Europe: Technologies, Industries and Cultures*. London: Intellect.
- Papacharissi, Z. (2011). *A Private Sphere: Democracy in a Digital Age*. Malden, MA: Polity Press.
- Poell, T and J. van Dijck. (2016). "Constructing Public Space: Global Perspectives on Social Media and Popular Contestation". *International Journal of Communication* 10(2016), 226-234.
- Perrin, A. (2015). *Social Media Usage: 2005-2015*. Pew Research Center.
<http://www.pewinternet.org/2015/10/08/social-networking-usage-2005-2015/>
Accessed 31.1.2016.
- Romero, D., & A. Molina. (2011). "Collaborative Networked Organisations and Customer Communities: Value Co-creation and Co-innovation in the Networking Era". *Production Planning & Control*, 22(5-6), 447-472.
- Singer, A. (2013). "AM / FM Radio Is Already Over, And No One Will Miss It". The Future Buzz.
<http://thefuturebuzz.com/2013/07/16/am-fm-radio-is-already-over-and-no-one-will-miss-it/-sthash.NR6zJmHe.dpuf> Accessed 31.1.2016.
- Stray, J. (2011). What Should the Digital Public Sphere Do?". Jonathan Stray.
<http://jonathanstray.com/what-should-the-digital-public-sphere-do> Accessed 17.1.2016.
- Winston, D. (2010). "Digital Democracy and the New Age of Reason". Massachusetts Institute of Technology. <http://web.mit.edu/comm-forum/papers/winston.html> Accessed 17.1.2016
- Wohlsen, M. (2014). "As Online Viewing Soars, Internet TV Will Soon be the ONLY TV". Wired. 20.10.2014. <http://www.wired.com/2014/10/online-viewing-soars-internet-tv-will-tv/>
Accessed 27.3.2016.
- Wright, S. (2007). "A Virtual European Public Sphere? The Futurum Discussion Forum". *Journal of European Public Policy*. 14(8), pp. 1167 – 1185.

Wright, S., Graham, T., & Jackson, D. (2016). "Third Space, Social Media and Everyday Political Talk". in A. Bruns, et al. (eds.). *The Routledge Companion to Social Media and Politics*. New York: Taylor & Francis/Routledge.