

Redirecting the agenda

Agenda-setting in the online Era

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Since its initial introduction, the paradigm of agenda-setting has become more refined and complex. In addition to the introduction of intervening factors the agenda-setting paradigm is now challenged by a rapidly changing media environment. This paper reviews the impact of online media technologies and digital platforms on the basic assumptions of the theory. The review sets out to reassess the conceptualization of the agenda-setting theorem by highlighting the development of new processes, attributes and features applicable to the online media. Our review, based on the findings of numerous studies on new media and agenda-setting, suggests several modifications of the basic theory.

Keywords: Agenda-setting, social media, new media, agenda diffusion, communication theory

*The agenda-setting theory is still spinning today,
it just has a few (million) more spokes in the wheel.¹*

Introduction²

Five decades have passed since the initial introduction of the agenda-setting conceptualization. The theory's core proposition is that the salience of elements on the news agenda influences, in turn, their salience on the public agenda. The agenda-setting effect has been documented in hundreds of studies on a

1. From an online posting, "Agenda-setting theory: helped or hindered by social media?", *Next Communication*, October 18, 2013, at: <http://nextcommunications.blogspot.de/2013/10/agenda-setting-theory-helped-or.html>

2. For an earlier and shorter version of this paper refer to Weimann & Brosius (2016).

diversity of issues, using a broad range of research methods under a wide variety of circumstances. Several basic assumptions underlie the classical research on agenda-setting:

1. The media highlight several issues and by doing so, shape the audiences' agenda or priority of issues;
2. There is a cause-and-effect relationship between media agenda and public agenda;
3. The public looks at news media for cues to know what is important (and what is not);
4. Because of restricted time and space, the mass media have to select news items and by doing so they do not reflect reality but rather filter and reconstruct it;
5. A key role is played by the media gatekeepers – also known as journalists – who determine the media agenda;
6. Different media have different agenda-setting potential;

Since its initial introduction, the concept of agenda-setting has become more refined and complex (Kosicki, 1993; Roberts, Wanta and Dzwo, 2002, Weaver 2007). This development can be described along five dimensions or, in fact, five differentiations:

First and second levels

As agenda-setting research developed, researchers identified two levels of agenda-setting (Ghanem, 1997). Weaver (2007) argued that the first level “is focused on the relative salience (usually operationally defined as perceived importance) of issues or subjects, while the “second level” examines the relative salience of attributes within issues. Balmas and Sheaffer (2010) added that the first level agenda-setting focuses on the media's role in telling us “what to think about” while the focus of the second level is the media's function of telling us “how to think about”. Second level agenda-setting is often related to the concept of framing or attribute agenda-setting (Ghanem, 1997; McCombs, 1997b; Takeshita, 1997). Attribute agenda-setting assumes that when covering a certain issue, the news media emphasize some attributes (e.g., sub-issues or aspects) and ignore others, which will influence how different audiences perceive the same issue. As a result, some framing researchers argue that agenda-setting researchers are unduly expanding the concept of agenda-setting (Kosicki, 1993; Pan & Kosicki, 1993) while others maintain that attribute agenda-setting is a natural extension of the original concept (Weaver, McCombs, and Shaw, 2004). In addition, the notion of priming emerged: As defined in the political communication literature, priming refers to

“changes in the standards that people use to make political evaluations” (Iyengar & Kinder, 1987, p. 63). Priming occurs when news content suggests to news audiences that they ought to use specific issues as benchmarks for evaluating the performance of leaders and governments. For an overview see Scheufele (1999) and Price & Tewksbury (1997).

Differentiation of agendas

As more studies on agenda-setting were published, it became evident that the process involves not only the mass media but also other actors including the public and policymakers. Rogers and Dearing (1988) suggested the distinction between agenda-setting and agenda-building based on the dominant role of media or public: “setting” an agenda refers to the effect of the media agenda on society while “building” an agenda includes interaction between the mass media and society where both media and public agendas influence public policy. Berkowitz (1992) introduced a more complex conceptualization of agenda-setting and agenda-building by suggesting the terms policy agenda-setting and policy agenda-building. Later, Shaw et al. (1999) proposed that an individual’s attachment to social groups might have an impact on media’s agenda-setting influence, a term they referred to as “agenda-melding.” Agenda-melding focuses on the personal agendas of individuals in terms of their community and group affiliations. Shaw and McCombs (2008) suggested that individuals attach themselves to vertical (traditional) and horizontal (social or interpersonal) media based on their interests.

Individual and group differences

Agenda-setting studies have shown variability in the correlation between media and public agenda. To explain the variability, McCombs and his colleagues introduced the notion of “need for orientation,” which “describes individual differences in the desire for orienting cues and background information” (McCombs, 2004). Two concepts, relevance and uncertainty, define an individual’s need for orientation. Relevance suggests that an individual will not seek news media information if an issue is not personally relevant. Hence, if relevance is low, people will feel the need for less orientation. “Level of uncertainty is the second defining condition of need for orientation. Frequently, individuals already have all the information that they desire about a topic. Their degree of uncertainty is low” (McCombs, 2004, p. 55). When issues are of high personal relevance and uncertainty is high, the need to monitor any changes in those issues will be higher. Several studies revealed that the need for orientation indeed predicts stronger agenda-setting effects (Weaver,

1977; Schönbach & Weaver, 1985). Huck, Quiring & Brosius (2009) proposed individual susceptibility to agenda-setting effects as an intervening variable in the information processing of issues.

Differences across issues

Another reason for variations in the agenda-setting effects is whether the issue is obtrusive or unobtrusive (Zucker, 1978; Walgrave & Van Aelst, 2006). Obtrusive issues are those that affect nearly everyone directly, such as increased prices of basic food while unobtrusive issues are those that are more distant to the public, like a political scandal or the genocide in Africa. The obtrusiveness of an issue is based on the audience's personal experience with the topic, thus media coverage about the unemployment rate might not affect those in a stable job as much as those audience members who have recently been unemployed (Walgrave & Van Aelst, 2006). According to Dearing and Rogers (1996, 91), "agenda setting is, in some cases, an emotional reaction to certain trigger events." By definition, a trigger event is a spectacular, rare incident that brings an issue to the forefront of attention (Birkland, 1997). Examples of trigger events include disasters and catastrophes such as earthquakes, terrorist attacks, nuclear accidents, or oil spills. Brosius and Kepplinger (1990) used levels of abstractness and distinguished between event-related issues (explosion of a chemical plant), concrete thematic issues (air pollution) and abstract political fields (environmental politics). They found stronger agenda-setting effects in the context of events, particularly when these events are unexpected, negative, far reaching and with broad consequences, such as the Fukushima power plant disaster. The more abstract an issue becomes (such as unemployment), the weaker the effects of the media agenda on the public agenda. For such abstract issues agenda-setting only occurs when a new, unexpected event is happening which may be used to re-frame the abstract event (see also the issue attention cycle of Downs, 1972; Hilgartner & Bosk, 1988)

Agenda-setting studies are very heterogeneous in terms of the issues studied: the fact that the central question of issue definition is not answered consistently leads to an insufficient comparability. Studies analyzing agenda-setting effects not only have to define what kind of topics or problems form part of a broader issue category, but also have to avoid confounding effects produced by a single event with effects of media coverage on enduring social problems. The differences between agenda-setting studies, therefore, partly emerge from different issue aggregations. Different issue definitions produce different agenda-setting effects (Haak et al., 2014).

Differences across media

The agenda-setting effect varies across media too. For example, Wanta and Hu (1994) compared five news media in the U.S. to determine the optimal time-lag for agenda-setting effects to occur for each. The results show that television coverage had a shorter optimal time-lag than newspapers. The more immediate effect of television news, however, quickly deteriorated, and newspapers had a stronger long-term agenda-setting effect. National and regional media also had a more immediate impact than local media. When reviewing the available body of evidence regarding this question, McCombs (2004, p. 49) concluded that “it depends” – “as a broad empirical generalization, about half the time there is no discernible difference in the agenda-setting roles of newspapers and television news. The other half of the time, it appears that newspapers have the edge by a ratio of about 2 to 1.”

In addition to the intervening factors of individual characteristics, type of issue, the media involved, time lag between media and public agendas, first and second levels and other factors, the agenda-setting paradigm has been continually challenged by a rapidly changing media environment.

The new media environment

The basic principles and assumptions of the agenda-setting theorem have been developed in the pre-internet era and the majority of the agenda-setting research was conducted in the traditional media context. The growing use of the Internet for information and communication has been described abundantly.³ The recent reports on the growth of online media reveal a meteoric increase in the use, exposure and importance of online platforms: The number of global active Internet users reached in 2015 a total of 3.175 billion, which is nearly half of the world’s population (7.357 billion). As for social media, there are over 2.206 billion active users, a global penetration of 30%. Within one year, the number of social media users has risen by 176 million. Moreover, there are 3.734 billion mobile users accounting for a 51% worldwide penetration. Most of these users (1.925 billion) are using mobile devices for online communication on social media platforms (Regan, 2015).

With the rising popularity of the Internet and online social media, people became more independent from traditional (offline) news media. Television, radio

3. GlobalWebIndex’s quarterly report on the latest global trends in social network usage – providing insights on topline and regional levels of engagement as well as key behaviors, demographic changes and device usage. See: <https://www.globalwebindex.net/products/report/gwi-social-q2-2014>

and print media's role in conveying news is declining in favor of online/mobile media, and the internet now constitutes the main source of news for a majority of Americans who are under 50 (Pew, 2011a, 2011b). According to a 2015 study conducted by Pew Research Center, the majorities of Twitter (63%) and Facebook users (63%) now say each platform serves as a source for news about events and issues outside the realm of friends and family. That share has increased substantially from 2013, when about half of users (52% of Twitter users, 47% of Facebook users) said they got news from the social platforms (Pew, 2015). With more than 1.55 million active users, 968 million people who log onto Facebook daily in June 2015, sharing over 25 billion web articles each, the relationship between social media and news consumption must now be considered to be a fundamental part of our media environment. While the news media moved into the Internet and their news are now available on different online platforms, the audiences, due to technological capabilities, can now create their own news stories and share them online. People made their own website or blog on which they commented on personal issues and the news, and these personal websites and postings became an important news provider for others. Subsequently, even the traditional media are integrating online platforms, posting links, promoting online versions of their contents and citing online sources including bloggers and other social media.

The emergence of new online platforms has changed the media environment dramatically and thus challenged the basic assumptions of the agenda-setting theory. In 2005, McCombs acknowledged that: "Now, the Internet is the new frontier for research" (McCombs, 2005, p. 544). Nowadays, as a result of easy access to media, people can form their own agendas and then find groups of others with similar agendas. The Internet and social media make it possible for people around the globe to find others with similar agendas and collaborate with them (Ragas & Roberts, 2009). Chaffee and Metzger (2001) argued that "new technologies may give more power to people whose agendas would not normally be reported in the major mass media." As new media increasingly helps people to locate and contact those who care about similar issues, they concluded that: "The key problem for agenda-setting theory will change from 'what issues the media tell people to think about' to 'what issues people tell the media they want to think about.'" Furthermore, they predicted that in the new media environment, measuring the media agenda "will become particularly challenging as available sources of news expand" and that measuring public agenda "will be as equally problematic as people filter and personalize their news using new media technologies."

New agenda for agenda-setting research

How do these trends influence the agenda-setting process? We may expect reduced agenda-setting effects due to more content choice, more outlets and sources available to news consumers, more control of the contents by the consumers and more blurring of the lines between content producers and content consumers. However, we may also expect some stronger agenda-setting effects since much of the social media contents and blogs rely on coverage in the traditional media. If new media are following the cues of traditional media, then the agenda-setting power has not diminished but has been transferred to other channels as well. Thus, traditional media could set the agenda of blogs, social networking sites, video sharing sites, and others, which then deliver those cues to the general public in a postmodern version of the two-step flow. Moreover, social media may influence media agenda thus creating the “reverse flow of agenda”. Due to the speed with which many social media outlets such as YouTube, Facebook and Twitter function, they may actually have the ability to influence the agenda of traditional news outlets. We will now examine the emerging trends in agenda-setting research in light of our own findings from a set of studies as well as the accumulating empirical data on agenda-setting in the online media age.⁴

Trend 1: What is now the media agenda?

The conceptualization of “Media Agenda” is in flux. While traditional news sources like newspapers, television or radio remain important, they are giving way to an emerging variety of online platforms. As noted, “Traditional media companies are also in an ongoing process of adapting to and adopting some of these new modes of communication that have given rise to social media. The Internet is at the center of this change, expanding the definition of news sources and news producers. So-called citizen journalists, as well as activists, are availing themselves of Internet-based platforms in the form of personal and cooperative blogs, social networks, and photo and video sharing sites.” (Sayre et al., 2010, p. 9). Three-fourths of news consumers online said they receive news through e-mail or social networking sites, and more than half use those means to share links to news (Purcell et al., 2010).

4. According to Tran (2014), the study of online agenda-setting made its way to academic journals in 2002, when PEW Internet & American Life Project released statistics showing the emergence of the Internet as a mainstream information tool (Rainie & Horrigan, 2002). Since then, numerous articles examining the agenda-setting function of online media have appeared in 16 different academic outlets. Tran (2014) found a surge in publication volume since 2007 and a sharp turn to strong interest in online agenda setting in the last five years.

According to a 2015 study conducted by Pew Research Center, the majorities of Twitter (63%) and Facebook users (63%) now say each platform serves as a source for news about events and issues outside the realm of friends and family. Reuters Institute Digital News Report 2015 (Newman et al., 2015) reveal that online news are the most important source. These developments have created three media forms: traditional offline, traditional online and online social networks (that can be further divided).

In a personal interview, McCombs stated that overall “the influence is from media to blogs. Occasionally, you’ll see spectacular kind of case studies where purely the influence went the other way, but those seem to be the exception rather than the day-to-day rule of what’s going on out there on the Internet” (cited by Silva, 2008). According to Campbell and his colleagues (2009), blogs are less likely to act as the originators of news in first-level agenda-setting, but instead exert influence through second-level agenda-setting.⁵ For example, blogs can act as “resuscitators” by following up on stories that the mainstream media either failed to follow up on or considered a low priority, thereby giving them new impetus to re-emerge on the mainstream news agenda. Blogs can also act as “reframers” by “interrogating, challenging, and making transparent those elements that contribute to the mainstream media’s framing of the news” (Campbell et al., 2009). Wojcieszak (2008) suggested, on the one hand, a strengthened first-level agenda-setting as a result of Internet users turning to major media conglomerates, as well as the focus of some online and offline sources on similar topics. On the other hand, a weakened second-level agenda-setting may be attributed to the diversity of the sources online describing the same issue in a different way. Correspondingly, an extensive study of the agenda setting from 1956 to 2004 (Tan & Weaver, 2012), concluded that: “In spite of Chaffee and Metzger’s (2001) warning of a diminished agenda-setting power of the mass media, this study did not find that the agenda-setting effect between the ‘New York Times’ and the public has become weaker overtime... One possible reason is the high level of intermedia agenda setting between traditional media and new media” (p. 12).

The interplay between old and new media is becoming a genre in itself, especially projects studying blogs and online news sites (Hennessy & Martin 2006). Sayre, Bode, Shah, Wilcox, and Shah (2010) compared traditional media agenda with new media agenda. Their analysis focused on thousands of videos posted to YouTube and coverage in professional news media, tracing the relationships

5. While the first level agenda-setting emphasizes media’s role in telling us “what to think about”, the second level of agenda-setting highlights the media’s function of telling us “how to think about”. Thus, the first level focuses on the influence of ‘issue’ salience and the second level deals with the influence of ‘attribute’ salience, .

among them. Their findings show that newspaper coverage, search traffic, and postings to YouTube are interrelated and to some extent determined by public events (elections, court decisions, etc.). The connections between social media and mainstream media shift dramatically over the course of the period studied. Before the elections, it was clearly the mainstream media leading the way, but after the elections, the number of YouTube videos predicted the other two series. Meraz (2009) compared traditional media with blog networks. Using the hyperlink as an external marker of source influence, her study assesses hyperlink usage across three diverse issues in 2007 within the 11 newsroom political blogs of the *New York Times* and the *Washington Post* and within 18 top U.S. independent political blogs across the political spectrum. Her findings highlight that traditional media's agenda setting power is no longer universal or singular within citizen media outlets: The independent blog platform is redistributing power between traditional media and citizen media. Thus, the traditional media's agenda-setting influence has become just one factor among many competing influences. Independent blog networks are now utilizing the blog platform to allow citizens more influence and power in setting news agendas (Meraz, 2009). This suggests that a few elite actors are in control of the majority of source influence throughout the entire network of traditional media and citizen media blog links (see also Meraz, 2011).

By comparing news items on the web (news web sites, blogs, and social media) with newspapers, television, and radio, Maier (2010) found that while coverage by news websites resembled that of traditional media (almost the same top stories), blogs and social media concentrated on news topics that were sharply distinct from those covered by the mainstream media. Nevertheless, online news does not simply follow the lead of traditional news. News sites offer a news mix with a wider range of issues. Less than 30% of the top story topics in blogs and social media match with professional media top issues. When their agendas do overlap, blog and social media content is slightly more extensive. This indicates a tendency to diverge from the mainstream news agenda.

Recent studies on intermedia agenda flow within the social media context include the flow between blogs and traditional media (Heim, 2013), between twitter and print (Conway, Kenski and Wang, 2015), between social media and traditional media (Neuman et al., 2014), and blogs on print media (Wallsten, 2013). After reviewing numerous studies we can conclude that while some researchers found different agenda-setting between blogs and traditional media (e.g., Metzgar, 2007; Wallsten, 2007, 2013; PEJ, 2010), and others found that the agenda of blogs had almost no influence on traditional media agenda (e.g., Murley & Roberts, 2006; Hestres, 2008; McClellan, 2010; Gomez-Rodriguez et al., 2010), still others found the opposite: that the agenda of blogs did hold some influence on the agenda of traditional media (e.g., Cornfield et.al., 2005; Lloyd, Kaulgud, and Skiena.,

2005; Collister, 2008; Woodyly, 2008; Rostovtseva, 2009; Meraz, 2007, 2009, 2011; Wallsten, 2013). It appears that in certain occasions bloggers who have exclusive information influence the traditional media's agenda but most commonly, the traditional media outlets (online and offline) set the agenda for online social media and personal networks.

Another aspect of new media outlets is that of neutralizing the process of "agenda-cutting," meaning uncovering news stories that went unreported despite having all the elements required to make them newsworthy (Fahmy, 2010). It is worth noting that during recent protests around the world (e.g., the Arab Spring), activists used social media, blogging, and video-sharing to encourage people to protest, and Twitter emerged as a key source for real-time logistical coordination, information, and discussion as well as in amplifying and spreading timely information across the globe (Lotan et al., 2011). During the 2011 Tunisian and Egyptian social revolutions, bloggers were found to play an important role in breaking and disseminating the news, and they had higher likelihood of engaging their audience to participate in the revolutions than the mainstream media.

Trend 2: Who sets the media agenda now?

The agendas of online and offline media were found to be correlated but who sets these agendas? Do social media influence the conventional media or vice versa? Intermedia agenda-setting has regularly been studied across various media platforms and geographical regions (McCombs, 2004). Yet, as Groshek and Groshek (2013, p. 17) argue, "one of the most confounding results in the arena of intermedia agenda-setting is the continual increase in media outlets that is set in apparent contradiction with the growing cultural and thematic homogenization of the content being presented". Sweetser, Golan, and Wanta (2008) found strong correlations between the agendas of news media and campaign blogs during the 2004 election, suggesting a transfer of agendas from the media to the blogs. However, this is not enough to establish causality. The authors note that blogs may have played a role in shaping news agendas of several broadcast news organizations, and encourage that the question of "who sets the agenda for whom" must continue to be asked as new communication technologies emerge" (p. 212).

Several studies explored the online-offline intermedia flow, revealing how the various types of media platforms influence each other's agenda. For example, Twitter's popularity with journalists has changed the process of news gathering and item selection. Many media outlets encourage their staffs to open Twitter accounts to interact with the public and promote stories (Gleason, 2010). "Twitter gives journalists new crowdsourcing abilities, access to real-time information from

many types of sources, and useful marketing capabilities to increase their readership”, argues Parmelee (2013, p. 439). The asynchronous and always-on nature of Twitter gives it an ‘ambient’ quality that offers “more complex ways of understanding and reporting on the subtleties of public communication” (Hermida, 2010: 1). Indeed, several studies revealed the vast and frequent use of twitter by journalists (e.g., Lasorsa, Lewis & Holton 2012; Russell et al., 2015).

Finally, Twitter has become popular among journalists because it is free, and economic pressures on newsrooms increasingly force journalists to look for cost-saving alternatives. This flow from Tweeter to media agenda has been revealed in several studies. Parmelee (2013) studied how political tweets have shaped the journalists’ coverage in terms of the events they cover, the sources they use, the quotes they present, and the background information they rely on to decide how to cover an issue. Parmelee found that Twitter is more important for them than Facebook and other social networks. Some journalists, the study found, actively seek out political tweets to find story ideas. Other studies found that journalists’ reliance on social media varies according to the medium: For example, print journalists tend to use Twitter differently than broadcast journalists (Schultz and Sheffer, 2010) and, therefore, may be influenced differently by tweets.

The notion of intermedia spill-over was already noted in the “old” media environment (e.g., Mathes & Pfetsch, 1991). Recently, agenda-setting research has begun to examine the spill-over of user-generated contents interconnecting with the agendas of professional, traditional offline media. Meraz (2011), for example, used time-series analysis to reveal that Weblogs contributed to setting the agendas of traditional elite media. Sayre et al. (2010) also analyzed the relationships of thousands of YouTube videos and professional news media coverage of proposition 8 and reported that “online outlets such as YouTube do indeed have the potential to set the agenda independently of, and even in advance of, more professional media outlets” (p. 31). Wu et al. (2013) investigated the influence of micro-blogs on the major agenda-setting media in China in the immediate aftermath of a catastrophic railway accident. Their results suggest that alternative online media played a decisive role in setting mainstream media agendas and providing a citizen forum on a sensitive issue that their conventional counterparts downplayed, ignored, or missed altogether. Kwak, Lee, Park and Moon (2010) compared Twitter’s trending topics to CNN headlines and Google trends. The findings reveal that CNN was ahead in reporting more than half the time, compared to Twitter. However, they also found evidence of what can be considered “focusing events” in social media agendas, noting that some news broke out on Twitter before CNN and they are of live broadcasting nature (e.g., sports matches and accidents). In another study, Zhao et al. (2011) compared the topical differences between the New York Times and Twitter, and found that Twitter was a viable source of what were considered

“entity-oriented topics with limited coverage in traditional media”. Moreover, that study also found that although Twitter users show relatively low interests in world news, they actively help spread news of important world events. Thus, it should not be surprising that some researchers (e.g., Vonbun et al., 2015) concluded that “online news has become more influential in terms of intermedia agenda-setting”.

But the flow is not one-directional, the new media and traditional media are influencing each other. In a study of 35 issues during the 2004 presidential campaign, Wallsten (2007:580) found that “on the vast majority of issues, there was a complex, bidirectional relationship between media coverage and blog discussion rather than a unidirectional media or blog agenda setting effect”. He also found that “bloggers and journalists respond to each other’s coverage within a few days” – indicating that the relationship between mainstream media and political blogs is a high-speed, two-way street rather than a slow-moving, one-way road. Similarly, Messner and DiStaso (2008) examined the use of weblogs as sources in the traditional media and the use of sources in weblogs in general. Their content analysis of 2059 articles over a six-year period from the *New York Times* and the *Washington Post* found that the newspapers increasingly legitimized weblogs as credible sources and that the traditional media and weblogs create what the researchers introduce and define as a news source cycle in which news content can be passed back and forth from media to media. Additional support for the reciprocal intermedia effect was reported by Groshek and Groshek (2013). Their study compared the topical agendas of two leading traditional media outlets (New York Times and CNN) with the most frequently shared stories and trending topics on two widely popular social networking Sites (Facebook and Twitter).

Several studies focused on how traditional mass media sets the issues and frames for online channels and found that the old media are important agenda-setters for online blogs and other platforms as well (e.g., Leskovec, Backstrom, & Kleinberg, 2009). Other studies corroborate the idea that offline-online agenda-setting predominates (Ku, Kaid, and Pfau, 2003; Oegema, Kleinnijenhuis, Anderson, and Hoof, 2008). An examination of more than 100,000 Twitter postings (tweets) concluded that news outlets “...influence large amounts of followers to republish their content to other users” (Leavitt, Burchard, Fisher, and Gilbert, 2009, p. 3).

Trend 3: Dynamic agenda-setting

Agenda setting is no longer conceived of as only a top-down process from (mainstream print and broadcast) media to audiences, but also as a dynamic process where, under certain conditions, citizen reporting on online platforms can shape

media, policy and public agendas. Goode (2009) defined Citizen Journalism as: “a range of web-based practices whereby ‘ordinary’ users engage in journalistic practices. Citizen Journalism includes practices such as current affairs-based blogging, photo and video sharing, and posting eyewitness commentary on current events” (p.1288). As social networks grow and prosper, the platforms through which we receive news, information, and opinion are now richer, easier to access and more versatile. Links on Twitter deliver news directly to the audience, obviating the need to search websites. Bloggers post their latest stories to Facebook, YouTube video links spread on smartphones, and people on the scene of breaking events post photos online, often before journalists arrive. At this changing and vibrant intersection of new media technologies and agenda flow is the clear shift towards a dynamic user-producer media environment (Papacharissi, 2009).

The rise of the media “produser,” as described by Bruns (2009) has changed conceptions of media and public agendas. Considering the wide range of options for online media consumers to create, share and consume contents with changing levels of commitment and intensity (Papacharissi, 2010), it is clear that agenda-setting processes are not anymore a vertical, static flow from mass media to their audiences. The notion “produsers” has changed the norm of agenda-setting running from mass media to the public in a manner that requires a more dynamic model. Moreover, the this technologically engendered transformation has not only made it possible for audiences, but also editors and journalists to easily monitor the output of multiple media organizations, including personal chatter on online platforms. Contrary to increasing number of sources and actors influencing media and public agendas in a dynamic interactions, these developments have actually been linked to increasing the homogenization of both media and public agendas, rather than diversifying them (Baum & Groeling, 2008; Boczkowski & de Santos, 2007; Reese, 2008).

The dynamic nature of the current agenda-setting process is also driven by the reduced impact of traditional gatekeepers. Traditional media’s loss of agenda setting monopoly power in the social media and online platforms environment is related to more dynamic news gathering and less control by gatekeepers. Unlike traditional media outlets that must rely on formal, normative and routine sources in their effort to produce reliable, credible, and professional journalism, independent bloggers are bound by no such codes. Citizen media gain their strength to critique traditional media’s news reports through the dynamic, real-time assemblage of relevant perspectives and opinions shared by other citizen media outlets (Meraz, 2009). Marwick & Boyd (2010, p. 16) describe Twitter as “...an example of a technology with a ‘networked audience.’” While the faceless, mass, broadcast audience has limited opportunity for feedback, the networked audience can communicate in a “‘many to many’ model”.

The dynamic nature of current flow of agendas is further fueled by the phenomenon labeled by Chadwick as the “hybrid media system” (Chadwick, 2013). Today, politics is increasingly shaped by organizations, groups, and individuals who are able to blend older and newer media platforms, in this hybrid media system. Chadwick presents illustrations of the hybrid media system in flow, from American presidential campaigns to WikiLeaks, from live prime ministerial debates to hotly-contested political scandals, from the daily practices of journalists, campaign workers, and bloggers to the struggles of new activist organizations. Thus, we have to move beyond treating the flow of agendas in traditional and in social media as inherently different and start treating them as interconnected and mutually dependent. Jungherr (2014) found that Twitter messages commenting on political parties followed different dynamics from the coverage of the same actors in traditional media. This is what he termed as Twitter’s logic of political coverage. His results are clearly supporting Chadwick’s hybrid media system, showing how new and traditional media and new media interact.

Another dynamic factor in the new media era is the emerging relationship between the aggregate search patterns of internet users and media coverage trends. Empirical evidence points to agenda-setting effects of the media on online information-seeking behavior (Hester & Gibson 2007; Maurer and Holbach, 2015; Scharnow & Vogelgesang 2011; Weeks & Southwell 2010). However, it also reveals the reverse direction: news organizations often monitor and react to online search trends (Dick 2011; Peters 2010a, 2010b; Tandoc, 2014). Ragas, Tran and Martin (2014) explored the over-time relationship between US news media attention and aggregate search interest of the online public during the Gulf of Mexico oil spill in 2010. Another study revealed the impact of audience metrics on news editors: “This study suggests that data aggregation of audience clicks plays an intricate and dynamic role in influencing whether and how online newsroom editors decide to feature certain news stories over others at multiple time points during a given day” (Lee, Lewis & Powers, 2014). The results provided strong evidence of an interactive two-way street in the transfer of salience between the media and search agendas. In addition to slower-moving, basic agenda-setting effects of news coverage volumes on aggregate search query volumes, this study revealed instances of faster-moving “reverse agenda setting” with the news media responding to search trends.

Trend 4: Agenda-setting or agenda diffusion?

The classical agenda-setting conceptualization suggested that the process needs a given amount of time for the media agenda to be absorbed and accepted as the public agenda (this is the notion of “time lag”). But in an online setting of

instantaneous communication, this assumption may not hold true anymore. This is because "...the emergences of 'Web 2.0' technologies...enable the production and mass circulation of *user-generated content*... This development is accompanied by a new form of interactive culture in which users act at the same time as producers, for they participate in the construction of online spaces while at the same time consuming the content generated by others" (Gane & Beer, 2008, p. 98). This idea demonstrates that in a world increasingly dominated by the online media, the essential time lag needed for "setting" may not exist or be too short to be measured. For the offline world, McCombs (2004) set the range of four to eight weeks for agenda setting to take effect. The decay of agenda-setting impact is believed to be between eight and 26 weeks (Tran, 2014). However, Roberts, Wanta, and Dzwo (2002) compared online media salience (mainstream news sites) and online public salience (bulletin board discussions) and found immediate effects after just one day. The agenda-setting impact also decayed rather rapidly, after only two or three days. Subsequent studies reported relatively shorter time lags for online agenda-setting effects (Hester & Gibson, 2007; Ku et al., 2003; Sweetser et al., 2008; Wallsten, 2007; Weeks & Southwell, 2010). Some reported that the flow of salience online may take place within the same day (e.g., Weeks & Southwell, 2010). The immediacy and speed of online communication have considerably shortened the time span: online information is delivered, received, and processed constantly in a 24-hour cycle, often in real time. This is where the notion of agenda *diffusion* may appear to be more appropriate.

The notion of diffusion relies more on interactive communication, social networks, multi-step flow of communication, sharing and promoting agendas in a process that may require time lag but also take only few seconds. The diffusion in social networks is related to the idea of active audiences while questioning the classical role of media gatekeepers. Active audience theory challenges the idea that what the media say is vital to understanding what people think. Individuals are not simply wired to accept the media's dominant message; they have the ability to interpret and reject and challenge the media. According to Kim and Lee (2006), agenda diffusion in the Internet is based on the following process: online news or web-sites report the important agenda in the Internet that in turn are spreading the agenda to more online publics. However, scholars concluded that the Internet-mediated agenda-setting or agenda-building processes not always occur in consecutive order and may involve more forms of diffusion and sharing: For example, the agenda that was reported by traditional media can come to the fore again through the online-based reversed agenda-setting: traditional media report online agenda to the public so that the agenda spread to both offline and online publics. And there is also the net-mediated agenda-rippling: an opinion spreads

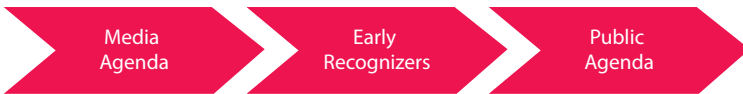
in the Internet through online main rippling channels such as social media, blogs, personal homepages, chatrooms and forums.

Sharing is probably the most important feature in social media. Social media platforms are specially designed, both technically and ideologically, for users to share content, information, news and opinions. This sharing is related also to the agenda-setting paradigm. Today, journalists cannot ignore that the most important news on the Web is the one that people are searching for. Thus, various media are trying to “move” their contents to “places” on the Web where people are talking, sharing, exchanging and promoting items and opinions: the social media. At the same time, this fact is creating a shared agenda of news that can no longer be separated into a media and a public agenda, a really new (and maybe alternative) agenda-setting paradigm. Since *The Washington Post* signed an agreement to use *Technorati* on August 2005, many media outlets have followed this practice: placing buttons which say “blog this” and publishing links to the “most blogged articles” or to other social media like *Digg*, *Facebook*, *Twitter*, *Newsvine*, *Reddit* or *MyYahoo*.

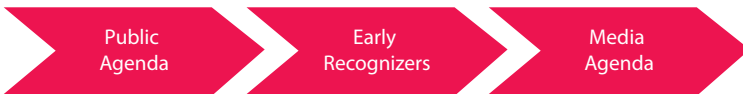
The online platforms allows for a variety of diffusion techniques. In their postings on Facebook and Twitter, people include links to news articles, blogs, photos, and videos, indicating they find them interesting or important enough to share with others. Meraz (2009, p. 683) used the hyperlink as “an external marker of source influence,” in a study of traditional media influence on blogs, coding more than 3,700 URLs from top U.S. political blogs. The study concluded that “... traditional media’s agenda setting power is no longer universal or singular within citizen media outlets: The independent blog platform is redistributing power between traditional media and citizen media” (Meraz, 2009, p. 701). On Twitter, markers of influence include a reply and a retweet. Retweeting allows users to resend another’s message to their own network of followers. The percent of retweets documented in several studies have ranged in average from three percent (Zhang, Fuehres, and Gloor, 2011; Boyd, Golder, and Lotan, 2010) to 19 percent (Tumasjan, Sprenger, Sandner, and Welp, 2010). More than half of American Twitter users retweet material posted by others (Smith & Rainie, 2010). And the retweeted message has great power to reach large audiences, as shown in an examination of 106 million tweets, which found that retweets reached an average of 1,000 users, regardless of the number of followers of the original tweet (Kwak et al., 2010). With its potential to disseminate news and other content to high numbers of Twitter users, the retweeted message provides a valuable measure of sharing in the flow of agenda in the social media environment. Similarly, on YouTube, one can promote the viewing and downloading of a posted video by several measures, including the number of times he/she views it, writing a response to the video or sending it to their social networks.

The diffusion of agendas relies on active audience members using interpersonal communication and social media. Thus, the new agenda-setting reality does not rely on the distinction between media (disseminators) and audiences (receivers) but rather the notion that “the effect of communication is communication”. According to studies on diffusion of media information, the mass media often inform only a subset of the public, and these people then talk to others about issues they have learned about in the mass media. A similar phenomenon was described as the two-step flow of mass communication by Lazarsfeld and colleagues and outlined by Katz and Lazarsfeld (1955). Thus, information, initially coming from the media, diffuses into interpersonal communication. In the context of agenda-setting, Brosius and Weimann argued already in 1996, “very little attention has been paid to the flow from the public to the media and within the public, although several studies provide empirical evidence of the public’s ability to affect the media agenda” (p. 562). They went on to say that there are “several encouraging indications of the significant role of interpersonal communication in the agenda-setting process” (p. 562). Weimann and Brosius (1994; Brosius & Weimann, 1996) suggested a development in this context by defining the role of opinion leaders as “personal mediators between media and personal agendas” that “collect, diffuse, filter, and promote the flow of information.” Combining the classical Two-Step Flow theory (Katz & Lazarsfeld, 1955) with the agenda-setting theory, they suggested four possible models:

Model 1: The Classical Two-Step Flow



Model 2: The Reverse Two-Step Flow



Model 3: Initiating the Classical Agenda-Setting Process



Model 4: Initiating the Reverse Agenda-Setting Process



Branum (2001) noted that Brosius and Weimann's description of early recognizers also applies to the actions of the filter-style bloggers, who choose which stories to provide a link for and what comments to make about the stories. Tomaszewski (2006) suggested the following analysis: Bloggers are being sourced by the traditional media, who are taking original content from them and incorporating it into their own messages to the public. The bloggers' input to traditional media places them in the role of mediator between the public agenda and the media agenda (Models 2 and 3). In addition, bloggers' higher visibility to the general public places them in the role of early recognizers whose information flows to the public (Models 1 and 4). Collister (2008) argued that by recognizing the role of opinion leaders in the information flow, Brosius and Weimann's models help to depict the fluid nature of agenda-setting and the inevitable "cross-fertilization" between blogs and traditional media.

The need to combine interpersonal communication and mass media, old and new, in the understanding of the agenda-setting process was highlighted already by Krause and Gehrau (2007) and by Vu and Gehrau (2010). They suggested that interpersonal communication plays a pivotal role in a two-step process in which the media agenda diffuses first from the mass media to media users, and then from these via interpersonal communication to nonusers. They also presented findings from a field study to provide empirical evidence for the reality of agenda diffusion. An integrated perspective of agenda-setting agenda-sharing by on-line interpersonal communication might explain why studies on the individual level often find weak agenda-setting effects whereas aggregate level often found strong media effects.⁶ In sum, the direct agenda-setting effect is changing to more agenda-diffusion or agenda-sharing effect combining mass media, interpersonal communication and social media.

Trend 5: Individual differences

There are two dimensions of the role played by individuals in the agenda-setting process: that of the actors involved in shaping the ("old" and "new") media agendas and that of the individuals on the "receiving" side – the audience. Let us examine each of them, as affected by the new media environment. The first dimension is that of the agenda setters, the individuals who shape media agendas.

6. The greatest differences were found between strong correlations between aggregated media agenda and aggregated public agenda on the one hand and weak correlations between the individual agenda and the agenda of the individual media input on the other hand. As Vu and Gehrau (2010) argue, the personal diffusion or sharing of agenda might be part of the explanation for this discrepancy.

There are many types of actors involved in the agenda-setting process, ranging from journalists and editors to political actors, lobbyists and active bloggers. The traditional agenda-setting paradigm highlighted the role of journalists and editors who operate as the gatekeepers for politically relevant information. However, as Williams and Delli Carpini (2004, p. 1208) argue, “the most profound impact of the new media environment may well be the way it undermines the ability of any elite to play this central role. The new media environment by providing virtually unlimited sources of political information (although these sources do not provide anything like an unlimited number of perspectives) undermines the idea that there are discrete gates through which political information passes: If there are no gates, there can be no gatekeepers”. Many scholars question whether gatekeeping can be a tenable theory in the decentralized, interactive new media environment where media abundance negates the role of a central news gatekeeper (Anderson, 2006; Bennett, 2004; Kovach & Rosensteel, 2007; Williams & Delli Carpini, 2004). Bruns (2005, 2008) even suggested to re-conceptualizing gatekeeping as gatewatching to account for the increased power of the decentralized ‘produser’ or “netizen” who can republish, refilter, and produce media content for a networked Web 2.0 environment. Others suggest new gatekeeping forms such as “Networked Gatekeeping” (Meraz & Papacharissi, 2013) or “Secondary Gatekeeping” (Singer, 2014).

Online communication also opens up new opportunities for “challengers” such as civil society actors and activists who do not necessarily fit the professional standards and rules of media selection (Pfetsch & Adam, 2011). In some cases, political bloggers are motivated to push an issue into the mainstream media. Schiffer (2006) focused on the “blogswarm” agenda setting, which refers to the ability of the blogosphere to force mainstream media coverage of ignored issues. As the findings reveal, when liberal bloggers pressed the issue, newspapers and CNN gave considerable coverage to it while the conservative blogs, broadcast networks, and Fox appear to have ignored the story.

There are numerous studies that focus on the role of individual actors in blogs or social networks whose activity trigger spill-overs into traditional media (e.g., Fuchs, 2007; Matzat, 2005; Mesch, 2007; Piotrowski, 2006). Examining blog influence on media reports, scholars have found evidence of traditional mass media’s dependence on top, political bloggers (e.g., Farrell & Drezner, 2008; Cornfield et al., 2005; Herring, Kouper, and Scheidt, 2004; Meraz, 2008). Since traditional media have begun to rely on these top bloggers in a number of ways that affect the selection and presentation of news stories, such bloggers are sometimes able to influence what counts as newsworthy (Woodly, 2008). Although the mainstream media managed to recapture control of the political agenda, most of the stories were initially generated through online leaks and rumors (Williams & Delli Carpini, 2004). Following Chaffee and Metzger’s (2001) prediction of “what

issues people tell the media they want to think about,” Delwiche (2005) compared issues that dominated the agenda of blogs to those deemed most important by journalists and the public during the same period. He found that bloggers were relatively independent and provided alternative topics to those discussed in the media. His conclusion was that blogs have demonstrated their ability to affect the flow of information between traditional journalists and audiences and to bridge those components of the public sphere.

The other individual dimension is the distinction among recipients, thus investigating agenda-setting effects at the individual level. One key distinction in studying agenda-setting effect is that between aggregate- and individual-level effects. In recent years, the new media environment has sparked a controversy regarding the agenda-setting effect. Bennett and Iyengar (2008, p. 708), for example, argued that “with the continued detachment of individuals from the group-based society, and the increased capacity of consumers to choose from a multitude of media channels ... effects become increasingly difficult to produce or measure in the aggregate while creating new challenges for theory and research”. While it might be the case that the media have lost their agenda-setting influence on the aggregate level, they might still have it on the individual level-or it might be the case that the new media have their agenda-setting influence on certain individuals. Based on the argument that the availability of alternative news sources online reduces citizens’ dependency on the traditional news media as a source of political and current affairs information, Shehata and Strömbäck (2013) tested the hypothesis that regular use of online news would weaken individual susceptibility to agenda-setting effects from traditional news media. The results largely supported the hypothesis: the effect of issue exposure on changes in perceived issue importance is positive and statistically significant for lower levels of online news use. Citizens who use more than two online news sources regularly are not affected by the traditional news media. A possible reason for these findings might be that citizens who use multiple sources of online news are exposed to a more heterogeneous issue agenda than consumers who depend on the traditional media only. Thus, citizens who take advantage of their high-choice media environment by looking for news online are less dependent on cues from the traditional news media when forming perceptions of issue importance (Bryant & Zillmann 2009; Metzger 2009).

There are also individual differences among the “receivers” revealed by experimental studies. Althaus and Tewksbury (2002), for example, used an experimental study to explore whether readers of the print and online versions of the *New York Times* would think differently about the importance of political issues. According to the results, the structure of online news provides individuals greater control over exposure, thereby leading online readers to focus on different types of information and to develop different perceptions of important problems than those

developed by print readers. Another experimental study revealing individual-level agenda setting compared the agenda-setting effects of online and television news (Conway & Patterson, 2008). The influence of Internet news on users proved to be weaker than the impact of television news on viewers. It is conceivable that the format of Web pages does not always contain salience cues and, therefore, Internet users are less likely to be affected by online media agenda.

Re-evaluating the agenda-setting assumptions

In his 2014 edition of *Setting the Agenda (2nd Edition)*, Maxwell McCombs (2014, 17–18) notes: “With the vast expansion of communication channels in recent decades, particularly the continuing proliferation of internet sites and personalized social media, we have entered a new era of agenda-setting research that is seeking answers...”. He goes on to suggest three key questions that may determine the future of agenda-setting research. These are:

1. Do internet channels of communication have agenda-setting effects among the public?
2. Has this proliferation of new channels diminished the agenda-setting impact of the traditional media?
3. To what extent are there specific channel effects vs. the collective impact of a communication gestalt?

In fact, these questions are calling for a reevaluation of the assumptions of the agenda-setting theorem in light of the new media environment. We may not have the full answers to these questions but today, due to accumulating research and findings, we certainly know more. The review of the new trends presented above, allows for more than just speculations: it provides directions. So let us review the state of those “early” assumptions in light of the new trends and research findings.

1. *The media highlight several issues and by doing so, shape the audiences’ agenda or priority of issues*

The new trends certainly provide a more complex assessment of this assumption. On the one hand, there are now more media outlets available including the rich variety of online sources. This may reinforce the media’s impact in many ways including agenda-setting since more media are reaching wider audiences. On the other hand, the new media environment is more diversified, presenting more agendas and thus reducing the potential impact of the more monolithic traditional media. Moreover, the audiences are now exposed directly not only to the mass media but also to online personal social media,

personal communication, active producers, bloggers, search engines, etc. And yet, as our review reveals, there is a strong empirical evidence of the basic agenda flow: either directly ("old" media maintaining their status as major news outlets) or indirectly when new media platforms are in fact diffusing and thus promoting the issues presented by the mass media. Thus, bloggers or producers may compete with the mass media's agendas but very often they cite, share, promote and diffuse these agendas. Moreover, there are numerous ways by which the conventional media are using online platforms (e.g., online versions) to further present their news and issues. Hester and Gibson (2007) studied how public salience is shaped by national and local media coverage (newspaper and television) of a controversial issue-same-sex marriage. Tracking search patterns the study revealed that online public interest in the issue was predicted by traditional media coverage during the synchronous and previous weeks. Shehata and Stromback's study (2013) found that traditional news media still exert agenda-setting influence on both the aggregate and individual levels, but that these effects are weakened by use of multiple online news media. Similarly, Weeks and Southwell (2010) examined issue salience in aggregate search as a function of issue salience in newspaper and television news. This study found that intense media coverage, especially television, immediately affected spikes in online searches. Put another way, online public agenda is set by conventional media agenda.

2. *There is a cause-and-effect relationship between media agenda and public agenda (supported by both conditions of correlations as well as time order)*

There is still evidence of direct media effect on public agenda but the causal, one-way relationship should be replaced by a more multifaceted and multi-directional flow. As our review reveals, several studies have documented the reverse effect when social media are influencing mass media agendas. As Tran (2014, 27–8) concluded his review of literature, "Mainstream mass media entities still exert their agenda-setting power, but they are no longer a sole force. Nontraditional platforms such as political blogs, partisan and alternative online media political websites, and social media become fire starters or shapers of media agendas in subtle ways. These external media forces may even bypass mainstream media to target and influence public opinion". Moreover, it is not only a two-way street but in fact a multilane highway when audiences are exposed to a multitude of sources, including online and offline media and/or online and offline personal communication. Thus, instead of media agenda shaping public agenda, we see more of "agenda blending" from various sources. The cause-and-effect assumption is no longer valid under these circumstances of parallel agendas, short or no time lags and reverse processes.

As noted in our review, the dynamic model is more relevant now, integrating the notion of “hybrid media system” with the agenda-setting theorem. The classical cause-and-effect-assumption has to be complemented with a diffusion-assumption under which no independent and dependent variables can be identified.

3. *The public looks at news media for cues to know what is important (and what is not)*

Indeed, the public seeks cues for important events and developments in the news media and this tendency is more manifested during crisis periods (Althaus, 2002) and key political events. Yet, the new media environment provides a richer variety of sources for such cues, including online sharing platforms, lists of the ‘most popular’ articles (MPAs) and more. Attempting to examine the effect of the most-emailed stories list on patterns of news consumption, Thorson (2008) found that MPAs list is not just reflecting the day’s top issues cued by editors; but rather, it serves as a distinctive navigational tool for online news readers to consume news due to its endorsement effect. Moreover, the results suggest that MPAs list may play an important role in allowing online users to be exposed to different issues with different prominence from the content shaped and cued by traditional editors (Thorson, 2008).

The emergence and development of user-friendly, low-cost online content management tools and online platforms have helped facilitate a rapid growth in the number and popularity of independently published websites, blogs and social media that overlap the space traditionally occupied by the mainstream news media. This so called ‘citizen journalism’ is not restricted to individual efforts: The traditional media, gradually, adopted user generated content initiatives by providing opportunities for news consumers to participate: Studies by Hermida & Thurman (2008) and by Jönssön & Örnebring (2011) reveal the impact of user generated content on news websites. Thus, cues do come from a more complex mixture of sources, including the traditional media. Nevertheless, as revealed by our review, studies show that online news do not simply follow the lead of traditional news. News sites offer a news mix with a wider range of issues. Less than 30% of the top story topics in blogs and social media match with professional media top issues. We are moving towards a mixed news media of citizen and professional journalism across many media platforms. This new mixed news media provides more sources, more cues and more agendas – yet, the audiences are still looking for such news cues, only from a richer media variety. Media trust, perceived reach and similar variables move into the focus of online agenda-setting research.

4. *The mass media do not reflect reality, they filter and shape it*

Regardless of the medium, platform or communication technology – there is always a mediated reconstructed reality (see Weimann, 2000). Older and newer media are providing a selective presentation of the events, their importance and implications. The fact that there are more “mirrors” available only enhances the reconstruction potential of mass mediated “realities” and agendas. As reviewed above, several studies highlighted, contrary to increasing number of sources and actors, that these developments have actually been linked to increasing the homogenization of both media and public agendas, rather than diversifying them. Thus, more mirrors that reflect the same “reality”, only reinforce the impact of homogenized agendas. The new media may even further promote these selective presentations by the “filter bubble” phenomenon (Pariser, 2011). A “filter bubble” is the result of websites’ algorithm that selectively guesses what information a user would like to see based on information about the user (such as record of searches, location and past clicks). Therefore, users become separated from information that disagrees with their viewpoints and thus effectively isolates them in their own political, cultural or ideological bubbles.⁷ Simultaneously, individuals increasingly ascribe partisan positions to various online media entities and filter contents based on perceived ideological or political congruence. Not only does the fragmentation of the new media environment limit the diversity of information available to citizens, it also polarizes individual-level attitudes and increases ideological or political homogeneity among political groups or partisan sorting. In much of the literature reviewed, the online news platforms are presumed to exacerbate the fragmentation of the media and the audiences. Yet, this conception has ignored fundamental changes in the way that the public uses the Internet, specifically with respect to social media and news consumption; Messing and Westwood (2014) for example, argue that social media provide readers a choice of stories from different sources that come recommended from politically heterogeneous individuals, in a context that emphasizes social value over partisan affiliation. There are two reasons for reduced selectivity. First, because these websites and new applications display content from different news providers in a single location, users no longer need

7. Pariser (2011, p. 5) defined his filter bubble in more formal terms as “that personal ecosystem of information that’s been catered by these algorithms”. Other terms have been used to describe this phenomenon, including “ideological frames”, a “figurative sphere surrounding you as you search the Internet” or “a closed silo of content”. Prime examples are Google’s personalized search results and Facebook’s personalized news stream. According to Pariser, users get less exposure to conflicting viewpoints and are isolated intellectually in their own informational bubble.

to select a news source; instead they select the story itself. This represents a fundamental break from past modes of news consumption wherein people habituated themselves to a trusted source – instead social media users can select news from a wide range of sources deemed by friends or fellow internet users to be interesting or important. Second, these new online outlets allow people to utilize endorsements to assist in their selection of content even when they visit a traditional news source website directly. This enhances the ability of individuals to select socially relevant content when presented with an overwhelming number of news stories from which to choose.

5. *A key role is played by the media gatekeepers who determine media agenda*

The need for gatekeepers in the media is clear and stems mainly from the fact that there is a need to make decisions on item selection, allocation of space, time and resources and decisions on priorities and prominence. Media agendas were and still are determined by editors, journalists, media owners and other gatekeepers. The gatekeeping process comprises of two stages (1) selection (of items, topics, issues) and (2) assigned prominence (amount of space or time allocated, placement in the news). The notion of gatekeeping was originally focused on the mass media with its few-to-many dynamic but now gatekeeping theory also addresses the many-to-many dynamic inherent in the Internet and online platforms. In the online environment, news consumers are able to bypass traditional gatekeepers and seek information in meeting their own interests while ignoring the intermediary processors of news. Hence, the function of gatekeeping “has shifted from the decision about what should be produced to control of what materials get to consumers and of what material they become aware” (Hargittai, 2004, p. 5). Journalists are indeed beginning to take a step back from their traditional gatekeeping role when many news websites have sections in which journalists provided baseline information and users could manipulate according to their needs and interests.

However, this trend does not eliminate entirely the process and role of gatekeeping. Is there a new mode of online gatekeeping? Barzilai-Nahon (2006, 2008) proposed a new way of looking at gatekeeping, applied to all information flow, including online channels. By redefining “gates”, “gatekeeping”, “gatekeeping mechanism” (any tool, technology, or methodology used to carry out the process of gatekeeping), and “network gatekeeper” (an entity – people, organizations, or governments – that has the discretion to exercise gatekeeping through a gatekeeping mechanism in networks and can choose the extent to which to exercise it). In the online context, gatekeeping mainly exists in four different levels of stakeholders: formal regulators, infrastructure regulators (e.g., service providers), communities’ managers and members of the communities (serving in two roles: as representatives of the communities or

as individuals). This updated look at gatekeeping is also relevant to the notion of agenda setting. There are new gatekeepers involved and new modes of gatekeeping. There is a need for online journalists, bloggers, producers and other online users to employ both stages of agenda setting (i.e., selection and prominence) but in a different way. Selection is required if only by the decision to present, post or relate to an issue. But selection is done now not only by professional journalist but by a vast range of users and active bloggers. Moreover, the prominence is now more dynamic, continuous and determined by a wider range of actors. Here is where our notion of the “agenda diffusion” becomes useful: by clicking on a news item, sharing an item, forwarding links, commenting on items – the audiences determine the prominence. Based on the interactive nature of the web, news stories online can be selected, highlighted and promoted by a different system of selection and gatekeeping from traditional media. Online news media provide their audience with the list of the ‘most popular’ articles (MPAs) which are derived from the number of times a news item clicked or emailed by other readers in any recent time span (Knobloch et al., 2005). This feature is now commonly provided by most online news media including traditional newspapers’ online, news aggregators, and blogs. Several studies (Knobloch et al., 2005; Thorson, 2008; Lee, 2012; Leino, Riih  , & Finnberg, 2011; Xu, 2013) have highlighted the importance of user-based recommendations of news online. Thus, MPA lists make online communication distinct from traditional news flow by bringing about a different pattern of gatekeeping. Friedrich, Keyling & Brosius (2016) introduced the concept of collective gate-keeping to accommodate the vanishing distinction between news producers and news consumers. Recipients – by using, liking and sharing news content online – function as gate keepers and make news items more or less prominent. Intensive usage of a given item is recorded by algorithms or journalists and leads to a change in the news agenda.

6. *Different media have different agenda-setting potential*

The variety of new media certainly supports this assumption. With the growing diversity of the media venues and channels and their differential reach ranging from only a few recipients to well over several million visits, the differences in agenda-setting processes and impact are even more significant. Online news media have come to tailor themselves and their messages to highly particularistic and specialized tastes while the consumers are more active in selecting, sharing and diffusing the news. Traditional newspapers, broadcast television, and radio are all examples of “vertical media”. Their reach is rapidly declining, particularly among young audiences. Now traditional media is complimented by a new form of media which can be called “horizontal media.”

Horizontal media includes online platforms such as online communities, online news sites and social media. Horizontal and vertical media intersect and interact in terms of agenda flow. The agenda-setting theorem emerged in the vertical media era: it assumes that the audiences select the medium to get their news and to know what is new. Thus the agenda-setting function is stronger, based on the media's pre-selection of topics and items. However, in the new horizontal media, the audiences are assisted by algorithms, search engines and MPAs to find the story on an item they are interested in. This does not rule out the role of media agendas: very often we get the emerging news items from the mass media and then conduct our own search for information, opinions and analysis. Moreover, the distinction between the old vertical and the new horizontal are blurred: online newspapers have merged search engines into their contents while online postings by bloggers, producers or netizens present headlines and sorted stories.

With the changes of new media, some aspects of agenda setting theory have changed. One of these changes is known as Agenda Melding which focuses "on the personal agendas of individuals vis-à-vis their community and group affiliations" (Ragas & Roberts, 2009). This means that individuals join groups and blend their agendas with the agendas of the group. Modern communication technologies have made agenda melding easier for people to develop because there is a wider range of groups and individual agendas. The Internet makes it easier for people all around the globe to find others with similar agendas and collaborate with them. The rise of online news outlets and social media is now acknowledged with several unique agenda-setting features and forms because of their characteristics and advantages (Althaus & Tewksbury, 2002; Knobloch et al., 2005; Lee, 2007; Tewksbury, 2003; Tewksbury & Althaus, 2000; Weeks & Southwell, 2010). Particularly, traditional qualities of issue prominence do not work in the same way on the web because of the unique ways in which most online media present their articles (Tewksbury & Althaus, 2000). For example, the length of an article, an important measure of news selection and preference, is not that relevant on web pages where most online news outlets present headlines, including hyperlinks, in which readers may access the original article page by clicking the hyperlinks. The use of hyperlinks and their popularity on the web pave the way for audiences and content producers to engage in the active process of agenda-setting because of interactivity online and its dynamic and continuous character. As revealed by our review, there are new characteristics of the agenda-setting flow, including intermedia agenda-setting, agenda diffusion rather than setting, reverse flow of agendas, etc.

Conclusion

The answers to McCombs' questions on the fate of the agenda-setting theorem in light of the new communication technologies are rather complex. Though the basic claim of the theory is valid today, it certainly requires substantial modifications and adjustments. The processes and patterns portrayed by the theory's basic assumptions are very different today. These assumptions, predating the Internet, the digital media and the new social media, are not valid anymore. The accumulating empirical evidence suggests that though the traditional media lost some of its agenda-setting potential, their impact is maintained in the new media environment and even incorporated some of the flow into online platforms. Yet, there are new modes of agenda flow to and from the traditional media, including new directions, new time lags, new intermedia influences, new roles played by individuals and more. The new media both enhanced and changed the nature and patterns of the agenda-setting process. As we suggested, there are five trends highlighted by studies on agenda-setting in the online settings. These trends do not suggest a diminished or reduced agenda-setting impact, but rather a very fresh and innovative look at the process and the impact. Answering McCombs' last question on the uniqueness of these new channels in terms of agenda-setting, the studies reveal that social media platforms provide additional, advanced and rapid channels for the diffusion of agendas, for the promotion of the traditional media's agendas, for reverse flow to the mass media and for the crucial role played by certain key positions in the online networks (see also Weimann et al., 2014).

The challenge now is mostly methodological: the new communication technologies introduce new modes of agenda-setting processes and actors but also the need for advanced methods and measures. The classical correlational analysis – be it cross-sectional or longitudinal – between media agenda (mainly measured by content analysis) and public agenda (mainly measured by survey research) is inappropriate for the unfolding of the agenda flow in the multifaceted, multi-directional, rapid and dynamic environment of the new media. For example, recipients in the new media environment express the perceived importance of an issue by clicking on it, forwarding it to others, commenting on it, “liking” it, searching for it in search engines, etc. This allows for non-survey measurements of their agenda, applying advanced tools of online patterns analysis. Online agenda-setting methodology has developed several new measures to gauge salience in online contents. These include issues mentioned in blog posts, YouTube clips, online political ads, bulletin boards and portals, and online news. The sum of keywords is another measure of salience on websites (e.g., Ku et al., 2003; Tedesco, 2005) and blogs (Wallsten, 2007). There are also specific databases serving the new agenda-setting studies. One of these is the New Media Index, based on data from two

Web-tracking sites which monitor the way more than 100 million news blogs and 250 social media Web pages link to news articles. Percentage of links provides an index of news influence on the agenda of social media. Taken together, regression and time series analyses have to be complemented by procedures such as network analysis or diffusion analysis.

The measurement of public salience of issues in the new media environment provides both additional challenges and opportunities. There are various alternative methods to measure public salience online. These include bulletin board online discussions, postings in social media, online buzz measures (e.g., the Buzz Index provided by Yahoo!), search traffic (e.g., the number of hits on Google News or the Search Volume Index generated by Google Trends), and more. These new measures of online public salience introduce innovative approach to agenda-setting methodology. Data on search queries are rich and easily available while "Aggregate search volume appears to capture all dimensions of public salience. Intuitively, scholars praise this measure as an unobtrusive, natural index that is not influenced by survey wording or response bias" (Tran, 2014, 219–20).

Finally, when relating the media and public agendas, time series analysis with fixed time lags is no longer appropriate to analyze the rapid and continuous flow of salience transfer between a complex network of interpersonal channels and media platforms. While several online studies still rely on cross-sectional, aggregate data and simple correlations to account for agenda-setting effects, steps have been taken toward more stringent approaches. These include cross-correlation analysis, which allows the data to be analyzed with several different time lags and experimental designs, allowing researchers to attribute causality and to account for effects at the individual level. In conclusion, the agenda-setting theory is still spinning today, but it certainly has many more spokes in the wheel. Consequently, the new agenda for agenda-setting research comprises both the theoretical adjustments and refinements of the original paradigm as well as the development of new measures and new data analysis techniques.

References

- Althaus, S. L. (2002). American News Consumption during Times of National Crisis. *Political Science & Politics*, 3, 517–521.
- Althaus, S. L., & Tewksbury, D. (2002). Agenda-setting and the "new" news: Patterns of issue importance among readers of the paper and online versions of the *New York Times*. *Communication Research*, 29(2), 180–207.
- Anderson, C. (2006). *The long tail: Why the future of business is selling more of less*. New York: Hyperion.

- Balmas, M., & Sheafer, T. (2010). Candidate Image in Election Campaigns: Attribute Agenda Setting, Affective Priming, and Voting Intentions. *International Journal of Public Opinion Research* 22 (2): 204–229. doi:10.1093/ijpor/edq009
- Barzilai-Nahon, K. (2006). Gatekeepers, virtual communities and their gated: Multidimensional tensions in cyberspace. *International Journal of Communications, Law and Policy* 11, 1–28.
- Barzilai-Nahon, K. (2008). Toward a theory of network gatekeeping: A framework for exploring information control. *Journal of the American Information Science and Technology* 59 (9), 1–20.
- Baum, M. A. & Groeling T. (2008). Online media and the polarization of American political discourse, *Political Communication*, 25, 345–365. doi:10.1080/10584600802426965
- Bennett, L. (2004). Gatekeeping and press-government relations: A multi-gated model of news construction. In L. Kaid, (Ed.), *The handbook of political communication* (pp. 283–313). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bennett, L. & Iyengar, S. (2008). A new era of minimal effects? The changing foundations of political communication. *Journal of Communication*, 58, 707–731. doi:10.1111/j.1460-2466.2008.00410.x
- Berkowitz, D. (1992). Who sets the media agenda? The ability of policymakers to determine news decisions. In J.D. Kennerly (Ed.), *Public opinion, the press, and public policy* (pp. 81–102). Westport, CT: Praeger.
- Birkland, T. A. (1997). *After Disaster: Agenda Setting, Public Policy, and Focusing Events*. Washington, DC: Georgetown University Press.
- Boczkowski, P. J. & de Santos, M. (2007). When more media equals less news: Patterns of content homogenization in Argentina's leading print and online newspapers, *Political Communication* 24(2), 167–180. doi:10.1080/10584600701313025
- Boyd, D., Golder, S., and Lotan, G. (2010). Tweet tweet retweet: Conversational aspects of retweeting on Twitter, *Proceedings of HICSS-43*. Kauai, HI January 5–8.
- Branum, J.M. (2001). *The blogging phenomenon- An overview and theoretical consideration*. Final Paper for MC 5303- Theories of Mass Communication, Southwest Texas State University, TX.
- Brosius, H.-B., & Kepplinger, H. M. (1990). The agenda-setting function of television news: Static and dynamic views. *Communication Research*, 17, 183–211. doi:10.1177/009365090017002003
- Brosius, H.-B., & Weimann, G. (1996). Who sets the agenda? Agenda-setting as a two-step flow. *Communication Research*, 23(5), 562–581. doi:10.1177/009365096023005002
- Bruns, A. (2005). *Gatewatching: Collaborative online news production*. New York: Peter Lang.
- Bruns A. (2009). *Blogs, Wikipedia, Second Life, and beyond: From production to produsage*. New York, NY, USA: Peter Lang.
- Bryant, J. and Zillmann, D. (2009). A retrospective and prospective look at media effects. In R. Nabi & M. B. Oliver (Eds.), *The SAGE handbook of media processes and effects* (pp. 9–18). Thousand Oaks, CA: Sage.
- Campbell, V., Gibson, R., Gunter, B., and Touri M. (2009). “News Blogs, Mainstream News and News Agendas”, in S. Tunney & G. Monaghan (Eds.), *Web Journalism: A New Form of Citizenship*, Eastbourne: Sussex Academic Press.
- Chadwick, A. (2013). *The hybrid media system: Politics and power*. Oxford, England: Oxford University Press. doi:10.1093/acprof:oso/9780199759477.001.0001
- Chaffee, S. H., & Metzger, M. J. (2001). The end of mass communication? *Mass Communication and Society*, 4(4), 365–379. doi:10.1207/S15327825MCS0404_3

- Collister, S. (2008). *Networked Journalism or pain in the RSS?: An examination of political bloggers and media agenda-setting in the UK*. Paper presented at the Politics: Web 2.0 International Conference, April 17–18, 2008.. London: Royal Holloway, University of London.
- Conway, B. A., Kenski, K., & Wang, D., (2015). The rise of Twitter in the political campaign: Searching for intermedia agenda-setting effects in the presidential primary. *Journal of Computer-Mediated Communication*, 20(4), 363–380. <http://doi.org/10.1111/jcc4.12124>
- Conway, M., & Patterson, J. R. (2008). Today's top story? An agenda-setting and recall experiment involving television and internet news. *Southwestern Mass Communication Journal*, 24(1), 31–48.)
- Cornfield, M., Carson, J., Kalis, A., & Simon, E. (2005). Buzz, blogs, and beyond: The Internet and the national discourse in the fall of 2004. *Pew Internet & American Life Project*. Retrieved August 3, 2014, from <http://www.pewinternet.org/2005/05/16/buzz-blogs-and-beyond-the-internet-and-national-discourse-in-the-fall-of-2004/>
- Dearing, W., & Rogers, E. M. (1996). *Agenda-setting*. Thousand Oaks, CA: Sage.
- Delwiche, A. (2005). Agenda setting, opinion leadership and the world of web logs. *First Monday*, 10(12). Retrieved July 28, 2014, from <http://www.firstmonday.org/ojs/index.php/fm/article/view/1300/1220> doi:10.5210/fm.v10i12.1300
- Dick, M. (2011). Search engine optimization in UK news production.' *Journalism Practice* 5, 462–477. doi:10.1080/17512786.2010.551020
- Downs, A. (1972): Up and down with ecology: The issue-attention cycle. *Public Interest* 28, 38–50.
- Fahmy, N. (2010). Revealing the “agenda-cutting” through Egyptian blogs: An empirical study. Paper presented at the 11th International Symposium on Online Journalism University of Texas, Austin. Retrieved August 1, 2014 from <https://online.journalism.utexas.edu/2010/papers/Fahmy10.pdf>
- Farrell, H. & Drezner, D. W. (2008). The power and the politics of blogs. *Public Choice*, 134, 15–30. doi:10.1007/s11127-007-9198-1
- Friedrich, K., Keyling, T., & Brosius, H.-B. (2016). Gatekeeping revisited. In G. Vowe & P. Henn (Eds.), *Political Communication in the Online World Theoretical Approaches and Research Designs* (S. 59–72). New York: Routledge.
- Fuchs, B. (2007). Bollywood-Fans meeting online and offline: Filmkultur im Internet, auf Stammtischen und bei Clubbings. *Zeitschrift für Kulturwissenschaften* 2, 69–84.
- Gane, N., & Beer, D. (2008). *New media*. New York, N.Y.: Berg.
- Ghanem, S. (1997). Filling in the tapestry: The second level of agenda setting. In M. McCombs, D. L. Shaw, & D. Weaver (Eds.), *Communication and Democracy* (pp. 3–14). Mahwah, NJ: Erlbaum.
- Gleason S. (2010). Harnessing social media. *American Journalism Review* 32(1): 6–7.
- Gomez-Rodriguez, M., Leskovec, J., & Krause, A. (2010). Inferring networks of diffusion and influence. Proceedings of the 16th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, Washington, DC, pp. 1019–1028. doi:10.1145/1835804.1835933
- Goode, L. (2009). Social news, citizen journalism and democracy. *New Media & Society*, 11(8), 1287–1305. doi:10.1177/1461444809341393
- Groshek, J. & Groshek, M. K. (2013). Agenda trending: Reciprocity and the predictive capacity of social networking sites in intermedia agenda setting across topics over time.” *Media and Communication*, 1, 15–27. doi:10.17645/mac.v1i1.71

- Haake, G., Gehrau, V., Văth, J. and Fretwurst, B. (2014). Issue definition and agenda-setting effects in communication research, Paper presented at the annual meeting of the International Communication Association, Hilton Metropole Hotel, London, 14 June. Retrieved July 22, 2014, from http://citation.allacademic.com/meta/p638059_index.html
- Hargittai, E. (2004). The changing online landscape: From free-for-all to commercial gate-keeping. In P. Day, & D. Schuler (Eds.), *Community practice in the network society: Local actions/global interaction* (pp. 66–76). New York: Routledge.
- Heim, K. (2013). Framing the 2008 Iowa democratic caucuses. Political blogs and second-level intermedia agenda setting. *Journalism & Mass Communication Quarterly*, 90(3), 500–519. <http://doi.org/10.1177/1077699013493785>
- Hennessy, C. Martin, P. (2006). Blogs, the mainstream media, and the war in Iraq. Paper presented at the annual meeting of the American Political Science Association, Philadelphia, PA, August 31. Retrieved July 22, 2014, from <http://www.journalism.wisc.edu/~dshah/blog-club/site/Hennessy.pdf>
- Hermida A. (2010). Twittering the news: the emergence of ambient journalism. *Journalism Practice* 4(3), 1–12. doi:10.1080/17512781003640703
- Hermida, A., & Thurman, N. (2008). A clash of cultures: The integration of user-generated content within professional journalistic frameworks at British newspaper websites. *Journalism Practice*, 2(3), 343–356. <http://doi.org/10.1080/17512780802054538>
- Herring, S., Kouper, I., Scheidt, L. A., & Wright, E. L. (2004). Women and children last: The discursive construction of weblogs. Into the blogosphere, *Into the Blogosphere*, Retrieved July 20, 2014, from http://blog.lib.umn.edu/blogosphere/women_and_children.html
- Hester, J. B., and R. Gibson (2007). The Agenda-setting function of national versus local media: A time-series analysis for the issue of same-sex marriage.” *Mass Communication & Society*, 10 (3): 299–317. doi:10.1080/15205430701407272
- Hestres, L. E. (2008). The Blogs of War: Online Activism, Agenda Setting and the Iraq war, paper presented at the annual meeting of the ISA's 49th Annual Convention, March 26, 2008, San Francisco, USA.
- Hilgartner, S., & Bosk, C. L. (1988). The rise and fall of social problems: A public arenas model. American Iyengar, S., & Kinder, D. R. (1987). *News that matters*. Chicago : University of Chicago Press. doi:10.1086/228951
- Huck, I., Quiring, O., & Brosius, H.-B. (2009): Perceptual Phenomena in the Agenda-Setting Process. *International Journal of Public Opinion Research*, 21(2), 139–164. doi:10.1093/ijpor/edp019
- Jönsson, A. M. & Örnebring, H. (2011) ‘User-generated content and the news *Journal of Sociology*, 94, 53–78.
- Jungherr, A. (2014). The logic of political coverage on Twitter: Temporal dynamics and content, *Journal of Communication*, 64, 239–259. doi:10.1111/jcom.12087
- Katz, E., & Lazarsfeld, P. F. (1955). *Personal influence: The part played by people in the flow of mass communications*. Glencoe, IL: Free Press.
- Kim, S. and T. Lee (2006). New functions of Internet mediated agenda-setting: Agenda-rippling and reversed agenda-setting”. *Korean Journal of Journalism & Communication Studies* 50 (3), 175–205.
- Knobloch-Westerwick, S., Sharma, N., Hansen, D. K., & Alter, S. (2005). Impact of popularity indications on readers’ selective exposure to online news. *Journal of Broadcasting & Electronic Media*, 49(3), 296–313. doi:10.1207/s15506878jobem4903_3

- Kosicki, G. M. (1993). Problems and opportunities in agenda-setting research. *Journal of Communication*, 43, 100–127. doi:10.1111/j.1460-2466.1993.tb01265.x
- Kovach, B. & Rosensteel, T. (2007). *The elements of journalism: What news people should know and the public should expect*. New York: Three Rivers Press.
- Krause, B. & Gehrau, V. (2007). Das Paradox der Medienwirkung auf Nichtnutzer. Eine Zeitreihenanalyse auf Tagesbasis zu den kurzfristigen Agenda-Setting-Effekten von Fernsehnachrichten. *Publizistik*, 52(2), 191–209. doi:10.1007/s11616-007-0083-1
- Kwak H., Lee C., Park, H., and Moon, S. (2010). What is Twitter, a social network or news media?. Proceedings of the 19th International Conference on World Wide Web, Raleigh, NC, USA, 26–30 April 2010. Retrieved June 30, 2014, from <http://an.kaist.ac.kr/~haewoon/papers/2010-www-twitter.pdf> doi:10.1145/1772690.1772751
- Ku, G., Kaid, L. L., & Pfau, M. (2003). The impact of web site campaigning on traditional news media and public information processing. *Journalism and Mass Communication Quarterly*, 80(3), 528–547. doi:10.1177/107769900308000304
- Lasorsa, D. L., Lewis, S. C., & Holton, A. E. (2012). Normalizing Twitter. *Journalism practice in an emerging communication space. Journalism Studies*, 13(1), 19–36. <http://doi.org/10.1080/1461670X.2011.571825>
- Leavitt, A., Burchard, E., Fisher, D., & Gilbert, S. (2009). The influentials: New approaches for analyzing influence on Twitter. *Web Ecology Project*, 4, 1–18. Retrieved July 2, 2014, from <http://www.webecologyproject.org/wp-content/uploads/2009/09/influence-report-final.pdf>
- Lee, A. M., Lewis, S. C., & Powers, M. (2014). Audience clicks and news placement. A study of time-lagged influence in online journalism. *Communication Research*, 41(4), 505–530. <http://doi.org/10.1177/0093650212467031>;
- Lee, J. K. (2007). The effect of the Internet on homogeneity of the media agenda: A test of the fragmentation thesis. *Journalism & Mass Communication Quarterly*, 84(4), 745–760. doi:10.1177/107769900708400406
- Lee, S. H. (2012). The end of the traditional gatekeepers, *Journal of Communication, Culture & Technology*, 12, 1–24.
- Leino, J., Rähkä, K.-J., & Finnberg, S. (2011). All the news that's fit to read: Finding and recommending news online. In P. Campos, N. Graham, J. Jorge, P. Palanque, N. Nunes, & M. Winckler (Eds.), *Human-Computer Interaction – INTERACT 2011* (Vol. 3, pp. 169–186). Heidelberg: Springer. doi:10.1007/978-3-642-23765-2_12
- Leskovec, J., Backstrom, L., & Kleinberg, J. (2009). *Meme-tracking and the dynamics of the news cycle*. Paper presented at the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), Paris, France. Retrieved July 10, 2014, from <http://www.cs.cornell.edu/home/kleinber/kdd09-quotes.pdf> doi:10.1145/1557019.1557077
- Lloyd, L., Kaulgud, P., & Skiena, S. (2005). Newspapers vs. blogs: Who gets the scoop? *AAAI Symposium on Computational Approaches to Analyzing Weblogs (AAAI-CAAW 2006)*, Stanford University, March 27–29, 2006.
- Lotan, G., Graeff, E., Ananny, M., Gaffney, D., Pearce, I., & Boyd, d. (2011). The revolutions were tweeted: Information flows during the 2011 Tunisian and Egyptian revolutions. *International Journal of Communication*, 5, 1375–1405.
- Maier, S. (2010). All the news fit to post? Comparing news content on the web to newspapers, television, and radio. *Journalism & Mass Communication Quarterly*, 87(3/4), 548–562. doi:10.1177/107769901008700307

- Marwick, A. & Boyd, D. (2010, July 7). I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society*. Retrieved August 3, 2014, from <http://nms.sagepub.com/content/early/2010/06/22/1461444810365313>
- Mathes, R. & Pfetsch, B. (1991). The role of the alternative press in the agenda-building process: Spill-over effects and media opinion leadership, *European Journal of Communication*, 6, 33–62. doi:10.1177/0267323191006001003
- Matzat, U. (2005). Die Einbettung der Online-Interaktion in soziale Netzwerke der Offline-Welt. Möglichkeiten der sozialen Gestaltung von Online-Gruppen. In M. Jäckel & M. Mai (Eds.), *Online-Vergesellschaftung? Mediensoziologische Perspektiven auf neue Kommunikationstechnologien* (pp. 175–199). Wiesbaden: VS Verlag für Sozialwissenschaften.
- Maurer, M., & Holbach, T. (2015). Taking online search queries as an indicator of the public agenda: The role of public uncertainty. *Journalism & Mass Communication Quarterly*, 1077699015610072. <http://doi.org/10.1177/1077699015610072>
doi:10.1177/1077699015610072
- McCombs, M. E. (1997). New frontiers in agenda setting: Agendas of attributes and frames. *Mass Communication Review*, 24(1&2), 32–52.
- McCombs, M. E. (2004). *Setting the Agenda: The Mass Media and Public Opinion*. Cambridge: Polity Press.
- McCombs, M. E. (2005). A look at agenda-setting: Past, present and future. *Journalism Studies*, 6(4), 543–557. doi:10.1080/14616700500250438
- McCombs, M. E. (2014). *Setting the Agenda: The Mass Media and Public Opinion* (2nd edition). Cambridge: Polity Press
- McClellan, N. (2010). *Members of congress respond to the political blogosphere*. Thesis presented to the Faculty of the Graduated School at the University of Missouri, USA.
- Meraz, S. (2007). *The networked political blogosphere and mass media: Understanding how agendas are formed, framed, and transferred in the emerging new media environment*. Dissertation Abstracts International Section A: Humanities and Social Science, 68 (12-A).
- Meraz, S. (2009). Is there an elite hold? Traditional media to social media agenda setting influence in blog networks. *Journal of Computer-Mediated Communication*, 14(3), 682–707. doi:10.1111/j.1083-6101.2009.01458.x
- Meraz, S. (2011). The fight for 'how to think': Traditional media, social networks, and issue interpretation. *Journalism*, 12(1), 107–127. doi:10.1177/1464884910385193
- Meraz, S. and Papacharissi, Z. (2013). Networked Gatekeeping and Networked Framing on #egypt, *The International Journal of Press/Politics* XX(X) 1–29.
- Mesch, G. (2007). Social diversification: a perspective for the study of social networks of adolescents offline and online. In K. I. Bildung (Ed.), *Grenzenlose Cyberwelt? Zum Verhältnis von digitaler Ungleichheit und neuen Bildungszugängen für Jugendliche* (pp. 105–117). Wiesbaden: VS Verlag für Sozialwissenschaften.
- Messing, R. and Westwood, S. (2014). Selective exposure in the age of social media: Endorsements trump partisan source affiliation when selecting news online, *Communication Research*, 41, 1–23. doi:10.1177/0093650212466406
- Messner, M. and Distaso, W. M. (2008). How traditional media and weblogs use each other as sources, *Journalism Studies*, 9, 447–463. doi:10.1080/14616700801999287
- Metzgar, E. (2007). *Blogsetting: Traditional media, agenda-setting & the blogosphere*. Paper presented at the Annual Meeting of the Southern Political Science Association, New Orleans, LA.
- Metzger, M. J. (2009). The study of media effects in the era of Internet communication. In R. Nabi, & M. B. Oliver (Eds.), *Handbook of Media Effects* (pp. 561–576). Thousand Oaks, CA: Sage.

- Murley, B., & Roberts, C. (2006). Biting the hand that feeds: Blogs and second-level agenda setting. Paper presented at the Southern Political Science Association. January 6, Atlanta, GA.
- Newman, N., Levy, D. A. L., & Nielsen, R. K. (2015). *Reuters Institute Digital News Report 2015*. Oxford, UK: Reuters Institute for the Study of Journalism.
- Neuman, W. R., Guggenheim, L., Mo Jang, S., & Bae, S. Y. (2014). The dynamics of public attention: Agenda-setting theory meets big data. *Journal of Communication*, 64(2), 193–214. <http://doi.org/10.1111/jcom.12088>
- Oegema, D., Kleinnijenhuis, J., Anderson, K., & Hoof, A. V. (2008). Flaming and blaming. The influence of mass media content on interactions in online discussions. In E. A. Konijn, S. Utz, M. Tanis & S. B. Barnes (Eds.), *Mediated interpersonal communication* (pp. 331–358). New York: Routledge.
- Pan, Z., & Kosicki, G. M. (1993). Framing analysis: An approach to news discourse. *Political Communication*, 10, 59–79. doi:10.1080/10584609.1993.9962963
- Papacharissi Z. (2009). The virtual sphere. *New Media & Society*. 4(1):9–27. doi:10.1177/14614440222226244
- Papacharissi Z. (2010). *Private sphere: Democracy in a digital age*. Cambridge, UK: Polity Press.
- Pariser, E. (2011). *The Filter Bubble: What the Internet Is Hiding from You*, New York: Penguin Press.
- Parmelee, J. (2013). The agenda-building function of political tweets, *New Media & Society* 16, 434–450. doi:10.1177/1461444813487955
- Peters, J. (2010a). At Yahoo, using searches to steer news coverage. *New York Times*, July 4. Retrieved July 4, 2014, from <http://www.nytimes.com/2010/07/05/business/media/05yahoo.html>.
- Peters, J. (2010b). ‘Some newspapers, tracking readers online, shift coverage.’ *New York Times*, September 5. Retrieved July 4, 2014, from <http://www.nytimes.com/2010/09/06/business/media/06track.html>.
- PEJ New Media Index (2010). Internet Access Ignites the Blogosphere, March 8–12, 2010. Retrieved February, 2016, from <http://www.journalism.org/2010/03/18/internet-access-ignites-blogosphere/>
- Pew Research (2010). *New media, old media: How blogs and social media agendas relate and differ from the traditional press*. Retrieved August 4, 2014, from <http://www.journalism.org/2010/05/23/new-media-old-media/>
- Pew Research (2011a). Navigating news online: Where people go, how they get there and what lures them away. Retrieved July 4, 2014, from http://www.journalism.org/analysis_report/navigating_news_online
- Pew Research (2011b). Internet gains on television as public’s main news source. Retrieved July 4, 2014, from <http://pewresearch.org/pubs/1844/poll-main-source-national-international-news-internet-television-newspapers>
- Pew Research (2015). The Evolving Role of News on Twitter and Facebook. Retrieved January 3, 2015, from <http://www.journalism.org/2015/07/14/the-evolving-role-of-news-on-twitter-and-facebook/>
- Pfetsch, B., Adam S. (2011). Media agenda building in online and offline media: Comparing issues and countries. Proceedings of the 6th ECPR General Conference, Reykjavik, Iceland, 25–27 August 2011.
- Piotrowski, K. (2006). Online – Offline. Soziale Netzwerke von Jugendlichen. In A. Tillmann & R. Vollbrecht (Eds.), *Abenteuer Cyberspace: Jugendliche in virtuellen Welten* (pp. 51–63). Frankfurt a.M.: Peter Lang.

- Price, V., & Tewksbury, D. (1997). News values and public opinion: A theoretical account of media priming and framing. In G. A. Barrett & F. J. Boster (Eds.), *Progress in communication sciences: Advances in persuasion* (Vol. 13, pp. 173–212). Greenwich, CT: Ablex.
- Purcell, K., Rainie, L., Mitchell, A., Rosenstiel, T., & Olmstead, K. (2010). Understanding the participatory news consumer. *Pew Internet & American Life Project*. Retrieved July 4, 2014, from <http://www.pewinternet.org/Reports/2010/Online-News.aspx>
- Ragas, M., & Roberts, M. (2009). Agenda setting and agenda melding in an age of horizontal and vertical media: A new theoretical lens for virtual brand communities. *Journalism & Mass Communication Quarterly*, 86 (1), 45–64. doi:10.1177/107769900908600104
- Ragas, M., Tran, H. and J. Martin (2014). Media-induced or search-driven? A study of online agenda-setting effects during the BP oil disaster, *Journalism Studies*, 15, 48–63. doi:10.1080/1461670X.2013.793509
- Rainie, L., & Horrigan, J. (2002). Counting on the Internet: Most find the information they seek, expect. *Pew Internet & American Life Project*. Retrieved July 4, 2014, from <http://www.pewinternet.org/Reports/2002/Counting-on-the-Internet-Most-find-the-information-they-seek-expect/1-Summary-of-Findings.aspx>
- Reese, S. D. (2008). Theorizing a globalized journalism. In M. Loeffelholz & D. H. Weaver (Eds.), *Global journalism research: Theories, methods, findings, future* (pp. 240–252). London: Blackwell.
- Regan, K. (2015). 10 Amazing Social Media Growth Stats From 2015, *SocialMediaToday*, August 10, 2015, from <http://www.socialmediatoday.com/social-networks/kadie-regan/2015-08-10-10-amazing-social-media-growth-stats-2015>
- Roberts, M., Wanta, W., & Dzwo, T. (2002). Agenda setting and issue salience online. *Communication Research*, 29(4), 452–465. doi:10.1177/0093650202029004004
- Rogers, E. and Dearing, J. (1988). Agenda-setting research: Where has it been, where is it going? *Communication Yearbook*, 11, 555–594.
- Rostovtseva, N. (2009). Inter-media agenda setting role of the blogosphere: A content analysis of the Reuters photo controversy coverage during the Israel-Lebanon conflict in 2006. Thesis submitted to the University of North Carolina, Chapel Hill, USA.
- Russell, F. M., Hendricks, M. A., Choi, H., & Stephens, E. C. (2015). Who sets the news agenda on Twitter? *Digital Journalism*, 3(6), 925–943. <http://doi.org/10.1080/21670811.2014.995918>
- Sayre, B., Bode, L., Shah, D., Wilcox, D. and Shah, C. (2010). Agenda setting in a digital age: Tracking attention to California Proposition 8 in social media, online news, and conventional news, *Policy & Internet*, 2, 7–32. doi:10.2202/1944-2866.1040
- Scharkow, M., & Vogelgesang, J. (2011). Measuring the public agenda using search engine queries. *International Journal of Public Opinion Research*, 23(1), 104–113. doi:10.1093/ijpor/edq048
- Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of Communication*, 49, 103–122. doi:10.1111/j.1460-2466.1999.tb02784.x
- Schiffer, A. J. (2006). Blogswarms and press norms: News coverage of the Downing Street memo controversy. *Journalism & Mass Communication Quarterly*, 83, 494–510. doi:10.1177/107769900608300302
- Schoenbach, K. & Weaver, D. H. (1985). Finding the unexpected: Cognitive bonding in a political campaign. In S. Kraus and R. Perloff (Eds.) *Mass Media and Political Thought* (pp. 157–76). Beverly Hills, CA: Sage.
- Schultz, B. and Sheffer, M. L. (2010). An exploratory study of how Twitter is affecting sports journalism. *International Journal of Sport Communication* 3(2): 226–239.

- Shaw, D., & McCombs, M. E. (2008). *Agenda setting in the new media landscape: Two perspectives and approaches to research*. Paper Presented to the Colloquium for Philip Meyer, University of North Carolina, Chapel Hill.
- Shaw, D., McCombs, M. E., Weaver, D., & Hamm, B. (1999). Individuals, groups, and agenda melding: A theory of social dissonance. *International Journal of Public Opinion Research*, 11(1), 2–24. doi:10.1093/ijpor/11.1.2
- Shehata, A., & Stromback, J. (2013). Not (Yet) a new era of minimal effects: A study of agenda setting at the aggregate and individual levels. *The International Journal of Press/Politics*, 18 (2), 234–255. doi:10.1177/1940161212473831
- Silva, J. (2008). Interview with Maxwell McCombs. *Estudos em Comunicação*, the University of Navarra at Pamplona, Spain. Retrieved August 4, 2014, from http://www.ec.ubi.pt/ec/04/html/09-Jan_Alyne_Barbosa_e_Silva-Maxwell-McCombs.html#tthFtNtAAB
- Singer, J. B. (2014). User-generated visibility: Secondary gatekeeping in a shared media space. *New Media & Society*, 16(1), 55–73. doi:10.1177/1461444813477833
- Smith, A. and Rainie, L. (2010). 8% of online Americans use Twitter. *Pew Internet & American Life Project*, Retrieved August 4, 2014, from <http://www.pewinternet.org/Reports/2010/Twitter-Update-2010.aspx>
- Sweetser, K., Golan, G., & Wanta, W. (2008). Intermedia agenda setting in television, advertising, and blogs during the 2004 election. *Mass Communication and Society*, 11(2), 197–216. doi:10.1080/15205430701590267
- Takeshita, T. (1997). Exploring the media's roles in defining reality: From issue-agenda setting to attribute-agenda setting. In M. McCombs, D. L. Shaw, & D. Weaver (Eds.), *Communication and democracy* (pp. 15–27). Mahwah, NJ: Lawrence Erlbaum Associates.
- Tan, Y., & Weaver, D. H. (2012). Agenda Diversity and agenda setting from 1956 to 2004. *Journalism Studies*, 14, 773–789. doi:10.1080/1461670X.2012.748516
- Tandoc, E. C. (2014). Journalism is twerking? How web analytics is changing the process of gatekeeping. *New Media & Society*, 16(4), 559–575. <http://doi.org/10.1177/1461444814530541>
- Tedesco, J. C. (2005). Issue and Strategy Agenda Setting in the 2004 Presidential Election: exploring the candidate–journalist relationship. *Journalism Studies*, 6(2), 187–201. doi:10.1080/14616700500057270
- Tewksbury, D. (2003). What do Americans really want to know? Tracking the behavior of news readers on the Internet. *Journal of Communication*, 53, 694–710. doi:10.1111/j.1460-2466.2003.tb02918.x
- Tewksbury, D., & Althaus, S. L. (2000). Differences in knowledge acquisition among readers of the paper and online versions of a national newspaper. *Journalism & Mass Communication Quarterly*, 77(3), 457–479. doi:10.1177/107769900007700301
- Thorson, E. (2008). Changing patterns of news consumption and participation. *Information, Communication & Society*, 11(4), 473–489. doi:10.1080/13691180801999027
- Tomaszeski, M. S. (2006). A baseline examination of political bloggers: Who they are, their views on the blogosphere and their influence in agenda-setting via the two-step flow hypothesis. Thesis Submitted to the Florida State University, College of Communication, Florida, FL.
- Tran, H., (2014). Online agenda setting: A new frontier for theory development. In T. J. Johnson (Ed.), *Agenda Setting in a 2.0 World* (pp. 205–229). New York: Routledge.
- Tumasjan, A., Sprenger, T. O., Sandner, P. G., and Welp, I. M. (2010). Predicting elections with Twitter: What 140 characters reveal about political sentiment. Proceedings of the Fourth International AAAI Conference on Weblogs and Social Media, May 23–26, 2010, George Washington University, Washington, DC.

- Vonbun, R., Königslöw, K. K., & Schoenbach, K. (2015). Intermedia agenda-setting in a multi-media news environment. *Journalism*, 1464884915595475. <http://doi.org/10.1177/1464884915595475> doi:10.1177/1464884915595475
- Vu, N. H. N. and Gehrau, V. (2010). Agenda diffusion: An integrated model of agenda-setting and interpersonal communication, *Journalism & Mass Communication Quarterly*, 87, 100–116. doi:10.1177/107769901008700106
- Walgrave, S., & Van Aelst, P. (2006). The contingency of the mass media's political agenda setting power: Toward a preliminary theory. *Journal of Communication*, 56, 88–109. doi:10.1111/j.1460-2466.2006.00005.x
- Wallsten, K. (2007). Agenda setting and the blogosphere: An analysis of the relationship between mainstream media and political blogs. *Review of Policy Research*, 24(6), 567–587. doi:10.1111/j.1541-1338.2007.00300.x
- Wallsten, K. (2013). Old media, new media sources: The blogosphere's influence on print media news coverage. *International Journal of E-Politics*, 4(2), 1–20. <http://doi.org/10.4018/jep.2013040101>
- Wanta, W. and Hu, Y-W. (1994). Time-lag differences in the agenda-setting process: An examination of five news media, *International Journal of Public Opinion Research*, 6, 225–240. doi:10.1093/ijpor/6.3.225
- Weaver, D. (1977). Political issues and voter need for orientation. In D. L. Shaw and M. E. McCombs (Eds.), *The emergence of American public issues* (pp. 107–120). St. Paul, MN: West.
- Weaver, D. (2007). Thoughts on Agenda Setting, Framing, and Priming, *Journal of Communication* 57, 142–147. doi:10.1111/j.1460-2466.2006.00333.x
- Weaver, D., McCombs, M., & Shaw, D. L. (2004). Agenda-setting research: Issues, attributes, and influences. In L. L. Kaid (Ed.), *Handbook of Political Communication Research* (pp. 257–282). Mahwah, NJ: Erlbaum.
- Weeks, B., & Southwell, B. (2010). The symbiosis of new coverage and aggregate online search behavior: Obama, rumor, and presidential politics. *Mass Communication and Society*, 13(4), 341–360. doi:10.1080/15205430903470532
- Weimann, G. (2000). *Communicating Unreality: Modern Media and the Reconstruction of Reality*. Los Angeles: Sage.
- Weimann, G., & Brosius, H. B. (1994). Is there a two-step flow of agenda-setting? *International Journal of Public Opinion Research*. 6(4), 323–341. doi:10.1093/ijpor/6.4.323
- Weimann, G., & Brosius, H. B. (2016). A new agenda for agenda-setting research in the digital era. In G. Vowe & P. Henn (Eds.), *Political Communication in the Online World Theoretical Approaches and Research Designs* (S. 26–44). New York: Routledge.
- Weimann, G., Weiss-Blatt, N., Mengistu, G., Mazor, M., and Oren, R. (2014): Reevaluating “The End of Mass Communication?” *Mass Communication and Society* (forthcoming). doi:10.1080/15205436.2013.851700
- Williams, B. A., & Delli Carpini, M. X. (2004). Monica and Bill all the time and everywhere: The collapse of gatekeeping and agenda setting in the new media environment. *American Behavioral Scientist*, 47(9), 1208–1230. doi:10.1177/0002764203262344
- Wojcieszak, M. E. (2008). Mainstream critique, critical mainstream and the new media: Reconciliation of mainstream and critical approaches of media effects studies? *International Journal of Communication*, 2, 354–378.
- Woodly, D. (2008). New competencies in democratic communication? Blogs, agenda setting and political participation. *Public Choice*, 134(1–2), 109–123.

- Wu, Y., Atkin, D., Mou, Y., Lin, C. A. & Lau, T. (2013). Agenda Setting and Micro-blog Use: An Analysis of the Relationship between Sina Weibo and Newspaper Agendas in China, *The Journal of Social Media in Society* 2(2), 8–25.
- Xu, Q. (2013). Social recommendation, source credibility, and recency: Effects of news cues in a social bookmarking website. *Journalism & Mass Communication Quarterly*, 90(4), 757–775. <http://doi.org/10.1177/1077699013503158>
- Zhao W. X., Jiang J., Weng J., He J., Lim E., Yan H., & Li X. (2011). Comparing Twitter and traditional media using topic models. Proceedings of the 33rd European Conference on Advances in Information Retrieval, Dublin, Ireland, 18–21 April 2011. doi:10.1007/978-3-642-20161-5_34
- Zhang, X., Fuehres, H. and Gloor, P. (2011). Predicting stock market indicators through Twitter: “I hope it is not as bad as I fear”, *Procedia – Social and Behavioral Sciences*, 26, 55–62. doi:10.1016/j.sbspro.2011.10.562
- Zucker, H. G. (1978). The variable nature of news media influence. In B. D. Ruben (Ed.), *Communication yearbook 2* (pp. 225–240). New Brunswick, NJ: Transaction Books.

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