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Abstract

With ‘Fake News’ being consistently brought up in discussions around current issues, the involvement of social media as an important platform for campaign during the 2016 United States Presidential elections and the current scandal around Cambridge Analytica, it is important to understand and analyze the kind of information made available on Social Media for the general public of a democracy. This research aims to understand to what extent are social media websites and/or platforms are enabling the spread of ‘Fake News’ through the provision of certain tools and present algorithms. This is achieved through a thorough analysis of peer-reviewed research papers on the same topic and critical analysis of trusted online sources to understand the workings of Facebook. The research explores mainly the issues around the US Presidential elections while touching upon Brexit and very briefly the Asian context. It also briefly covers the issue of censorship, gatekeeping and possible technological solutions for the future. This paper found that the aim of personalizing all content on social media through filter bubbles may be backfiring in context of having a free public sphere. Further, the tools provided by Facebook (and other social media platforms) to organizations for promotion of content and products to a particular demographic can very easily be misused. As an alternative, the paper suggests certain websites and methods to improve one’s online news viewing experience through social media platforms, while acknowledging the shortcomings and limitations of the research.

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Introduction

Social media companies are advocating cheaper and easier access to the internet and its facilities through initiatives like Free Basics, in order to have smoother flow of information, people are starting to shift their dependency to these platforms as reliable news sources. (Solon 2017) “Platforms like Facebook [...] are now increasingly becoming intertwined with journalism, and are becoming primary sources in which people see news.” (Rochlin 2017, 386) In the presence of such initiatives along with the current shifting of political biases and popularities, one needs to be wary of the information they come across through social media platforms.

The 2016 United States Presidential Elections shed light on the increasingly prevalent issue of Fake News, underlining the consequences of the ubiquitous nature and the spread of misinformation in the political sphere through the use of social media platforms. With ‘Fake News’ being consistently brought up in discussions around current issues, and the current scandal around Cambridge Analytica (Valdez 2018), it is further important to understand and analyze the kind of information made available on Social Media.

Most Social Media websites aim to personalize one’s experience by showing them the kind of content one would agree with and would like to read, they accomplish this through algorithms, recommendation systems and through that process place each profile within a filter bubble (Pariser, 2011). “Facebook’s public explanations of its guiding principles and the practices [...] indicate a reversal of how news is normally understood to operate. Instead of news producers dictating to an audience what is important, Facebook privileges the actions of its users to generate a list of news. Instead of a common set of stories, news becomes personalized.” (Carlson 2017, 12)

During recent interviews, Mark Zuckerberg categorized Fake News within three sections – one, the spammers, the economically motivated actors, like the Macedonian trolls, who do not have any ideological goals but only present sensationalized titles for clickbait purposes, the second being the state actors, like the Russian fake accounts aimed at spreading certain propaganda; the final category being the misinformation or misinterpretations being spread around by real media. (Romano 2018) This research focuses more on the third category while considering the other two as and when required. With that in mind, one needs to realize that “The misunderstanding is that fake news can be contested on an intellectual spectrum of true-untrue, prescribed by an

independent and objective source. In an era of post-truth and mass social divide, this is no longer viable.” (Rochlin 2017, 386)

Through a thorough analysis of existing literature on the topics of ‘Fake News’ and ‘Social Media’, this paper aims to find out the existing issues within the functioning of a platform which could be enabling the spread of misinformation on social media platforms. The methodology focuses on reviewing and critically evaluating the current processes which have been observed in several published, academically peer-reviewed papers. Using the latest available studies, this paper focuses on the understanding of the functioning of new media technologies and its impacts on the current socio-political situations or if the converse is true.

The paper analyses two main aspects of the functioning of social media platforms in order to examine the extent to which these platforms allow the possibility of misuse and the spread of misinformation. The first, the relation between the spread of misinformation and filter bubbles, the second being the advertising tools available to the users of these platforms to spread their own ideas. After which the paper tries a broader context and the possible solutions to these issues, including issues with censorship and governance if the platforms choose to have a gate-keeping system. Simultaneously, the paper also reviews certain technological methods which have the potential to be permanent solutions to this issue.

Fake News and the Filter Bubble

The filter bubble, a term commonly used to refer to an ideological isolation which occurs on social media due to certain technological algorithms and personalization settings. Coined by Pariser, it is explained as a result of technology and its developments, which could potentially have an impact on ‘real life’ and current political situations. Eli Pariser, in his TED talk said, “Your filter bubble is your own personal, unique universe of information that you live in online. And what’s in your filter bubble depends on who you are, and it depends on what you do. But the thing is that you don’t decide what gets in. And more importantly, you don’t actually see what gets edited out.” (Pariser 2011) In this series of his talk, he highlights how the selection and personalization of one’s newsfeed may result in viewing only articles of one’s interest, the autonomous nature of the formation of this bubble can be problematic on several levels. This particular technological tool, ubiquitous in social media platforms, could easily get one stuck within an echo chamber of their

own opinions or biases, thus disrupting a person's liberty of thought, one of the three conditions (liberty of thought, discussion and action) of development of independence of mind and autonomous judgement. (Bozdag and Hoven 2015) If this judgement of a person gets clouded, one could face difficulties in evaluating the kinds of news one comes across on social media thus possibly threatening the understanding and validity of the information and knowledge they gain through it.

Placing the issue of the current prevalence of misinformation on social media, one needs to take a closer look to understand the reality of the relation between the two. A study done post the 2016 United States Presidential Elections elaborates on the possible impact of the filter bubble on Facebook and Twitter towards increasing or decreasing the tendency to click on the links to the external websites available with information regarding the elections. Published in the Columbia Journalism Review, this study reveals an asymmetric pattern of polarization of viewing certain news sources more than others. The study mapped out the general political biases of the websites into left wing and right wing, revealing a pattern of each side getting further looped into their own biases, with very less concentration towards the mainstream websites. (Benkler et al 2017) The article also points that there were very few center-right websites and over the course of time, getting closer to the elections, the nodes of the websites supporting extreme right-wing bias got stronger. While the article acknowledges that the primary reason for such results is "is more likely politics and culture than technology", it also explains the role of technology in enabling such a reaction. (ibid) The strategies and policies followed by the Republicans was varied from the one employed by Democrats, so much so that studies have disclosed the use of artificial intelligence bots to encourage support for Donald Trump, the current President of the United States with nothing similar found in case of Hillary Clinton, the opposing candidate at the time. (Di Franzo and Gloria-Garcia 2017).

Cyberbalkanization, a possible outcome of the filter bubble, is predicted to have a negative impact on current socio-political situations and "As a consequence, the epistemic quality of information and diversity of perspectives will suffer, and the civic discourse will be eroded", which can be seen happening during the 2016 United States Presidential elections. (Bozdag and Hoven 2015, 1) Adding to this, "Users' perceptions of fake news pieces are highly affected by their like-minded friends in social media (i.e., echo chambers), while the degree differs along different social dimensions." (Shu et al. 2017, 11)

This can also be connected to the phenomenon of partisan selective exposure, a theory within psychology, refers to an individuals' "tendency to consume media which aligns with their views and beliefs and avoid such content that is different in perspective or even challenging to their position." (Sophr 2017, 153) This phenomenon dates back to the 1980's and can be noted to leverage group synonymity and polarization. (ibid) These concepts can be applied to the concept of filter bubbles with ease. Appertaining this within the context of Fake News, particularly in terms of misinformation present on the internet, filter bubbles exemplify these concepts considering the example of the 2016 United States Presidential elections or even the 2016 European Union referendum of the United Kingdom. The United Kingdom referendum provided parallel observations as the options presented were to 'leave' or 'stay', laying out equally opposing ideas and thought processes, thus providing an ideal ground for ideological polarization. (ibid)

Which then eventually leads to the final impact of the filter bubble; 'the news-finds-me' perception, entailing the belief that the news one receives on their social media newsfeed is enough and diverse to cover one's information needs for the day. (ibid) Knowing this, one must also note that the news available on social media, especially Facebook and Twitter also entail a significant amount of citizen journalism, with little to no fact-checking and opinions one would generally tend to agree with. This encloses the social media platform users within a satisfactory information cocoon, with the filter bubble affirming their understanding of the current happenings.

Advertising Tools and Parallels

In order to understand the extent to which social media platforms, with focus on Facebook, enable the spread of misinformation or 'Fake News' by providing certain tools to advertisers and other companies, it is crucial to know and understand the possibilities of misuse of these tools. A recent study revealed a severe exploit of the personally identifiable information entrusted to these platforms by the users. The study revealed a privacy breach when using the platforms for advertising purposes (Venkatdri et al 2018). Advertisers were allowed to use up to 15 different types of information to create a custom audience for their products, out of which at least five could be used independently. These custom audiences could be created for a minimum of 1,000 users, thus underlining the large scale of such marketing and unethical misuse of personal information. (ibid) Further, it was noted that these audiences could be created within a span of a couple of hours without having to make any extra payments to the platform to do so.

Other studies have revealed that advertising campaigns with targeted groups on Facebook are highly likely to be successful. (Chu 2013) Keeping these two facts in mind opens up new avenues and ways in which tools provided by social media platforms can be misused easily to spread misinformation.

This availability of advertising tools can be seen to work similarly to the filter bubbles by allowing people with ill intentions to target those most vulnerable to certain misbeliefs.

The recent issue and debate regarding Cambridge Analytica and its misuse of these tools has brought this issue into the forefront. (Valdez 2018) Hence proving the easy availability of these tools to the Macedonian fake news trolls. (ibid) These developments were noted by Facebook, and following the developments in the news story the company suggested making certain changes to their newsfeed algorithms. These changes are expected to reduce the number of external links shared by pages (refers to the concept of 'Page' in Facebook, not the general term used for a website page on the internet) and promotional websites one comes across while scrolling through their Newsfeed, and increase the number of posts shared and liked by 'Friends' on Facebook. (Kantrowitz 2018)

Through these developments, Mark Zuckerberg, the Chief Executive Officer of Facebook, was questioned multiple times over Facebook's share of responsibility over these issues; in reply to which he clarified the issues with censorship, if he decides to start a system which blocks websites and elaborated on his three-pronged approach to combating 'fake news' on Facebook, the implications of which shall be discussed in further detail in the next parts of this paper. (Romano 2018) The first prong being the elimination of accounts like those of the Macedonian trolls which create fake news stories purely for their own monetary profits, second being the deletion of accounts spreading propaganda like Russian bot accounts and the third, a currently unresolved issue, of misinformation spread by real news websites. (ibid)

Issues with Censorship

The internet has always been expected to be an ideal public space, a space where people can voice their opinions, share their thoughts and have open discussions regarding any topic which tickles one's fancy. This is closely affiliated to the principle of "free flow of information", which states that users "should have the freedom to access all of the information made available to them by

others. People should also have practical tools that make it easy, quick, and efficient to share and access this information.” (De Nardis and Hackl 2015)

The availability of this information has largely been the social media platforms in recent times. The content which passes through the platforms is, implicitly, in some manner, controlled by these platforms, “In practice, they make day-to-day decisions about what content is allowed on their platform and the conditions under which this content should be removed.” (ibid) But currently, the platforms have chosen to stick to strict “community guidelines” which only work to prevent issues of cybercrime and bullying or other malicious and/or spam content. The platforms avoid taking any responsibility over content further than these issued guidelines as they do not wish to encroach on the availability of “free flow of information” which is available on these platforms.

One can agree that “How they [platforms] design their platforms, how they allow content to flow, and how they agree to exchange information with competing platforms have direct implications for both communication rights and innovation.” (ibid) Thus explaining why most platforms choose to have the minimum community guidelines, and avoid taking responsibility over any control of the content available through them.

Other researches also tried to dig deeper within the idea of gate-keeping the content available through these platforms only to discover that though the concept of gate-keeping does remain fruitful within the digital context, the developing nature of social media and ill-defined concepts of gate-keeping pose challenges to avoiding the issues of censorship while applying them. (Wallace 2017)

Other Possible Solutions

Recent studies have experimented and tried new ideas which could combat this rising issue of ‘Fake News’ in social media. While the success stories have been few, they have exhibited the potential of a probable, well-functioning technological solution, wherein the deliberate gate-keeping of data through selected experts will not be required.

A recent study done at The University of Minnesota created a ‘Trust-Score Method’ which uses a prediction and feedback mechanism to assign ‘Trust-Scores’ to links and websites available through social media in order to determine the accuracy and/or reliability of the content of said link/website. (Roy et al 2017) These scores were then verified to check the validity of the facts presented through the links, which revealed the trust scores to be synonymous with the amount of

misinformation available through the links. This project proved to be successful in determining the trustworthy websites out of the many available ones, during Hurricane Sandy, presenting a very viable and potentially applicable solution to the issue of misinformation available on social media platforms. (ibid)

Another study experimented with the idea of content curation and revealed positive results towards the understanding and recognition of 'Fake News' by the users of social media platforms. The study curated news stories through the 'related links' feature available on social media and presented additional stories for each independent story presented, including one which supported the claims of the initial story, and one which opposed. (Vraga and Bode 2017a) After observing the pattern of users' clicks and evaluating their understanding of the topics presented and change in opinions, the study revealed positive understanding of real facts and recognition of the misinformation stories. (ibid)

Experimentation with 'data-mining fake news' has also revealed potential for success, though still a concept with several limitations. This study reviewed current practices of fake news extraction through a data mining perspective and "introduced the basic concepts and principles of fake news in both traditional media and social media." (Shu et al 2017, 12) Observing and evaluating these ideas through various datasets and evaluation metrics, this study introduced several methods for possible future solutions to this issue.

Other approaches point towards educating students and networks to increase their media literacy, increasing their knowledge and skills on the topic and also teach them their role as a content creator. (Vraga and Bode 2017b) This article also urges "scholars, journalists, educators, and citizens must together identify the strategic goals that lead to the creation of misinformation and uncover the audience motivations that lead to its acceptance." (ibid)

An International Approach

The prevalence of misinformation on social media platforms is not an issue limited to one or two countries. In an attempt to have a global understanding of this issue, this paper recognizes the problematic presence of this issue in Asian countries too. A study done with around 2000 Singaporeans revealed that only when the people are doubtful of their own knowledge of the topic and website, do they verify the information presented through a different source. (Tandoc Jr et al 2017) Another study done in Indonesia with a small group of college students unveiled a

problematic truth regarding the vulnerability of the youth towards believing the misinformation presented on social media. (Chandra et al 2017)

Meanwhile, a study from India believes that Fake News is not only prevalent in social media but also the mainstream media and strongly urges a dynamic journalism curriculum which thoroughly educates the coming generations about fake news and its consequences to tackle the post-truth era. (Bhaskaran et al 2017)

Limitations and Discussion

This study faces certain limitations in terms of finding a substantial tool which enables the spread of 'Fake News' or misinformation on social media platforms. The algorithms behind the functioning of social media platforms are complex and diverse and are often treated as a black box, a device whose internal working cannot be easily understood. The analysis done in this paper covers only two aspects of this algorithm, unveiling only the possibilities of misuse with no affirmation of said misuse, except for the ongoing case regarding Cambridge Analytica, which was briefly mentioned. The literature reviewed in the process of this research, also does not consistently refer to the same kind of news articles when using the term 'Fake News'.

This paper might also be prone to certain focuses and biases due to the methodology used to conduct this research. The present academic literature tends to focus upon Facebook and Twitter, while mentioning others in general terms. The 2016 United States Presidential elections as one the major focal points of analysis is another shortcoming of this paper, also due to the vast amounts of data easily available on the issue and the unexpected and conflicting results of the elections which lead to Donald Trumps victory.

The paper also attempts to create a broader and global context to completely understand the topic but falls short for reasons pertaining to the methodology applied.

Acknowledging these shortcomings and understanding the limitations of possible solutions to this present issue, the author of this paper recommends certain alternative solutions to tackle the post truth era as an avid user of social media platforms. There are certain website generators which allow one to read stories which are presented in a randomized order with no relation what-so-ever to the article read previously. These websites include StumbleUpon, Mangle, Delicious Randomizer, Diggbar, Google Toolbar, Minthink and many others. (Siefert 2017) If one still

wishes to get personalized news topics, one can also use smartphone applications like InShorts or Flipboard, which allow one to select the topics of interests and presents the latest new and articles on the topics without any further personalization of any sort. The monetization schemes of these websites is very close to those used by traditional media platforms.

Ultimately, the author of this paper urges the reader to be more aware and alert of the validity of news one comes across online while trying to avoid using social media platforms as their primary sources of news as much as possible until substantial technological solutions are applied to the working of these platforms.

Conclusion

Overall, this paper evaluated the extent to which social media platforms enable the spread of misinformation through the availability of certain tools and algorithms prominently followed. The research mainly examined two aspects of the functioning of these platforms which have a direct impact on one's newsfeed.

When analyzing the Filter Bubble, this research found that its presence highly influences the kind of content one sees on their social media newsfeeds. The risk of getting stuck within a loop of 'Fake News' is high if one has the tendency to click on biased news sources, this risk only increases if one's friends on said social media website share similar views. Though Powers says this in context of a selected niche of college students one can generalize it for all social media users - "lack of awareness of specific gatekeeping functions that Google and Facebook employ keeps them from fully evaluating the potential introduction of bias into news selection and prioritization, including whose interests are being prioritized by algorithms and human editors". (Powers 2017)

Following which the author of this paper analyzed the next significant aspect, the advertising tools provided to companies and other users which exposed a severe privacy breach and high vulnerability of the users and their personally identifiable information. This exploit was then connected to the recent Cambridge Analytica fiasco, thus highlighting the possibilities of misuse of such information by people with ill-intent.

This paper also considered gate-keeping and censorship issues which could crop up as a result of blocking certain types of websites and/or data to reduce the spread of misinformation. Next, the author tried to see things from a global perspective and find potential solutions to combat the issue of the spread of misinformation through social media, which led to finding technological

experiments like the 'Trust-Score Methods' and 'Data-mining techniques' which pave the way for further findings and permanent solutions.

Finally, the author of this paper acknowledged the limitations and short-comings of the research presented here while discussing alternative solutions one could apply in order to improve the personal experience of online news. The author also urged the reader to avoid using social media platforms as primary sources of news and if so, to be very alert and aware while doing so.

References –

- Benkler et al. n.d. “Study: Breitbart-Led Right-Wing Media Ecosystem Altered Broader Media Agenda.” *Columbia Journalism Review*. Accessed April 3, 2018. <https://www.cjr.org/analysis/breitbart-media-trump-harvard-study.php>.
- Bhaskaran, Hari Krishnan, Harsh Mishra, and Pradeep Nair. 2017. “Contextualizing Fake News in Post-Truth Era: Journalism Education in India.” *Asia Pacific Media Educator* 27 (1): 41–50. <https://doi.org/10.1177/1326365X17702277>.
- Bozdag, Engin, and Jeroen van den Hoven. 2015. “Breaking the Filter Bubble: Democracy and Design.” *Ethics and Information Technology* 17 (4): 249–65. <https://doi.org/10.1007/s10676-015-9380-y>.
- Busby. n.d. “Social Media and the Scholar in an Era of Hyper-Nationalism and Fake News | PS: Political Science & Politics | Cambridge Core.” Accessed April 3, 2018. <https://www.cambridge.org/core/journals/ps-political-science-and-politics/article/social-media-and-the-scholar-in-an-era-of-hypernationalism-and-fake-news/4E20220F636984D35A5A857FA88A62D9>.
- Carlson, Matt. 2018. “Facebook in the News.” *Digital Journalism* 6 (1): 4–20. <https://doi.org/10.1080/21670811.2017.1298044>.
- Chandra, Y. U., Surjandy, and Ernawaty. 2017. “Higher Education Student Behaviors in Spreading Fake News on Social Media: A Case of LINE Group.” In *2017 International Conference on Information Management and Technology (ICIMTech)*, 54–59. <https://doi.org/10.1109/ICIMTech.2017.8273511>.
- Chu, Shu-Chuan. 2011. “Viral Advertising in Social Media.” *Journal of Interactive Advertising* 12 (1): 30–43. <https://doi.org/10.1080/15252019.2011.10722189>.
- DeNardis, L., and A. M. Hackl. 2015. “Internet Governance by Social Media Platforms.” *Telecommunications Policy*, SPECIAL ISSUE ON THE GOVERNANCE OF SOCIAL MEDIA, 39 (9): 761–70. <https://doi.org/10.1016/j.telpol.2015.04.003>.
- DiFranzo, Dominic, and Kristine Gloria-Garcia. 2017. “Filter Bubbles and Fake News.” *XRDS* 23 (3): 32–35. <https://doi.org/10.1145/3055153>.
- Edson C Tandoc, Jr, Richard Ling, Oscar Westlund, Andrew Duffy, Debbie Goh, and Lim Zheng Wei. 2017. “Audiences’ Acts of Authentication in the Age of Fake News: A Conceptual Framework.” *New Media & Society*, September, 1461444817731756. <https://doi.org/10.1177/1461444817731756>.
- Johnson, N. F., P. Manrique, M. Zheng, Z. Cao, J. Botero, S. Huang, N. Aden, et al. 2017. “Population Polarization Dynamics and Next-Generation Social Media Algorithms.” *ArXiv:1712.06009 [Nlin, Physics:Physics]*, December. <http://arxiv.org/abs/1712.06009>.
- Kantrowitz, Alex. n.d. “Facebook Is Making Big Changes To Your News Feed.” BuzzFeed. Accessed April 3, 2018. <https://www.buzzfeed.com/alexkantrowitz/facebook-is-making-big-changes-to-your-news-feed>.
- Obar, Jonathan A., and Steve Wildman. 2015. “Social Media Definition and the Governance Challenge: An Introduction to the Special Issue.” *Telecommunications Policy*, SPECIAL ISSUE ON THE GOVERNANCE OF SOCIAL MEDIA, 39 (9): 745–50. <https://doi.org/10.1016/j.telpol.2015.07.014>.
- Pariser, Eli. n.d. *Beware Online “Filter Bubbles.”* Accessed April 3, 2018. https://www.ted.com/talks/eli_pariser_beware_online_filter_bubbles.
- Powers, Elia. 2017. “My News Feed Is Filtered?” *Digital Journalism* 5 (10): 1315–35. <https://doi.org/10.1080/21670811.2017.1286943>.

- Rochlin, Nick. n.d. "Fake News: Belief in Post-Truth | Library Hi Tech | Vol 35, No 3." Accessed April 3, 2018. <https://www-emeraldinsight-com.proxy.uba.uva.nl:2443/doi/full/10.1108/LHT-03-2017-0062>.
- Romano, Aja. 2018. "Mark Zuckerberg Lays out Facebook's 3-Pronged Approach to Fake News." Vox. April 3, 2018. <https://www.vox.com/technology/2018/4/3/17188332/zuckerberg-kinds-of-fake-news-facebook-making-progress>.
- Roy et al. n.d. "Development of Trust Scores in Social Media (TSM) Algorithm and Application to Advertising Practice and Research: Journal of Advertising: Vol 46, No 2." Accessed April 3, 2018. <https://www.tandfonline.com/doi/abs/10.1080/00913367.2017.1297272?journalCode=ujoa20>.
- Seifert, Colleen M. 2017. "The Distributed Influence of Misinformation." *Journal of Applied Research in Memory and Cognition* 6 (4): 397–400. <https://doi.org/10.1016/j.jarmac.2017.09.003>.
- Shu, Kai, Amy Sliva, Suhang Wang, Jiliang Tang, and Huan Liu. 2017. "Fake News Detection on Social Media: A Data Mining Perspective." *ArXiv:1708.01967 [Cs]*, August. <http://arxiv.org/abs/1708.01967>.
- Solon, Olivia. 2017. "'It's Digital Colonialism': How Facebook's Free Internet Service Has Failed Its Users." *The Guardian*. July 27, 2017. <http://www.theguardian.com/technology/2017/jul/27/facebook-free-basics-developing-markets>.
- Spohr, Dominic. 2017. "Fake News and Ideological Polarization: Filter Bubbles and Selective Exposure on Social Media." *Business Information Review* 34 (3): 150–60. <https://doi.org/10.1177/0266382117722446>.
- Tait, Amelia. 2016. "Facebook's False Reality." *New Statesman (1996)*, September 9, 2016. <https://www.highbeam.com/doc/1P3-4206632881.html>.
- Valdez, Andrea. n.d. "Everything You Need to Know About Facebook and Cambridge Analytica." WIRED. Accessed April 3, 2018. <https://www.wired.com/story/wired-facebook-cambridge-analytica-coverage/>.
- Venkatadri, Giridhari, Yabing Liu, Athanasios Andreou, Oana Goga, Patrick Loiseau, Alan Mislove, and Krishna P. Gummadi. 2018. "Privacy risks with Facebook's PII-based targeting: Auditing a data broker's advertising interface." <http://www.eurecom.fr/publication/5420>.
- Vraga, Emily K., and Leticia Bode. 2017. "Leveraging Institutions, Educators, and Networks to Correct Misinformation: A Commentary on Lewandosky, Ecker, and Cook." *Journal of Applied Research in Memory and Cognition* 6 (4): 382–88. <https://doi.org/10.1016/j.jarmac.2017.09.008>.
- . n.d. "In Related News, That Was Wrong: The Correction of Misinformation Through Related Stories Functionality in Social Media - Bode - 2015 - Journal of Communication - Wiley Online Library." Accessed April 3, 2018. <https://onlinelibrary.wiley.com/doi/abs/10.1111/jcom.12166>.
- Wallace, Julian. 2018. "Modelling Contemporary Gatekeeping." *Digital Journalism* 6 (3): 274–93. <https://doi.org/10.1080/21670811.2017.1343648>.
- Zamith, Rodrigo, and Seth C. Lewis. 2014. "From Public Spaces to Public Sphere." *Digital Journalism* 2 (4): 558–74. <https://doi.org/10.1080/21670811.2014.882066>.