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The Tangled Web: Studying Online Fake News

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Panel

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Abstract

Fake news has become a ubiquitous and extremely worrying phenomenon, capturing the attention of academics, governments, businesses, media, and the general public. Despite this notoriety, many questions remain to be answered about the generation, diffusion, consumption, and impacts of fake news that are spread through social media and online communities. A nascent body of IS research is emerging that addresses some of these questions. In this panel, we aim to motivate further IS research and produce an agenda by highlighting some of the important issues that need to be discussed with regard to fake news. We examine how IS scholarship can address these issues by drawing on its existing body of knowledge as well as considering less-studied but potentially fruitful areas of research.

Keywords: *misinformation, disinformation, propaganda, social media, politics*

Introduction

The generation and dissemination of false information through online media (e.g., Facebook, Twitter, Instagram, Reddit), commonly referred to as "fake news", has garnered immense public attention following the 2016 Brexit

> *Just remember, what you are seeing and what you are reading is not what's happening (Donald Trump 2018)[1].*

referendum and the 2016 and 2018 US elections. Fake news undermines public life across the globe, especially in countries where journalistic practices and institutions are weak (Bradshaw and Howard 2018). Research shows that fake news spreads "significantly farther, faster, deeper, and more broadly" than true news (Vosoughi et al. 2018, p. 1146) and has had major societal impacts (Ingram 2018). All signs indicate that it will get worse as political activists, scammers, alternative news media, and hostile governments

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[1] http://time.com/5347737/trump-quote-george-orwell-vfw-speech/ (accessed 2019-04-29)

become more sophisticated in their production and targeting of fake news. Fake news and other types of false information are also a matter of concern for business and management research and practice (Aral 2018; Knight and Tsoukas 2019). We are beginning to recognize that fake news is a threat to democracy and needs to be countered. Yet there is a dearth of evidence about many aspects of this problem, and many issues remain open to debate.

The wide-spread adoption and use of information and communication technologies, particularly social and digital media, play a key role in the current wave of fake news and false information sweeping the globe (Allcott and Gentzkow 2017; Lazer et al. 2018). We believe that the IS discipline can contribute significantly to the discourse around fake news, drawing on the field's 'intellectual core' of theories and empirical findings on the design, use, and impacts of IT artifacts at different levels of analysis (Sidorova et al. 2008). A nascent body of IS research on this topic is emerging (e.g., Minas and Dennis 2018; Moravec et al. 2018, 2019, in press; Murungi et al. 2018; Torres et al. 2018) and this panel seeks to expand this work and mobilize a full-fledged agenda for IS research. Consequently, this panel will address several interesting questions around the investigation of fake news from an IS perspective, organized around four broad issues: setting the stage (importance and definitions), impacts, mechanisms and remedies, and opportunities for IS research. These issues are laid out in detail in in the following section.

Issues

We organize our discussion around four broad issues. We first set the stage by providing a brief introduction to the topic, its reach, definitions and boundaries. To do so, we present several statistics on the prevalence and importance of fake news and why this should matter to IS, then move onto its potential impacts, its mechanisms and remedies, and opportunities for IS scholars to research the issues.

Issue 1: Setting the Stage

During the 2016 US presidential election, hundreds of fake news stories were shared millions of times on social media (Allcott and Gentzkow 2017). This is alarming because social media are gaining in popularity as sources of news across the world (Mitchell et al. 2018). Further, social media allow users to move beyond being mere consumers of news and become generators and propagators of news (Bro and Wallberg 2014). Finally, some have argued that the problem of online false information

> *The result of a consistent and total substitution of lies for factual truth is not that the lie will now be accepted as truth, and truth be defamed as lie, but that the sense by which we take our bearings in the real world - and the category of truth versus falsehood is among the mental means to this end - is being destroyed (Hannah Arendt 1967).*

goes far beyond fake news stories and the phrase 'fake news' does not adequately cover the entire range of online falsehood and deception issues we face today (Wardle 2018). Deepfakes, climate change denial, and the so-called 'anti-vaxxer' campaigns are examples of false content that are not necessarily circulated in the form of news stories. Therefore, for this issue, we discuss questions such as "what is fake news?", "how wide-spread is it?", "is it different from other types of false information?", "why is it of interest to IS?" and "where does it stand with regard to existing IS constructs" such as deception (e.g., George et al. 2018)?

Issue 2: Impacts

Some preliminary empirical evidence suggests that fake news can have far reaching influences (e.g., Southwell and Thorson 2015), both direct (e.g., the so-called 'Pizzagate' and the WhatsApp lynchings in India) and indirect (e.g., aggravating political polarization). Still, there is much to be learned about the impacts of exposure to online fake news on individuals, online communities, organizations and societies in the short and long terms. For example, we need more studies about the attitudinal and behavioral impacts of fake news at the individual level.

Moving to the group level, online communities tend to be good at preventing clickbait and outright falsehoods through fact checking, moderation, and curation (McGillicuddy et al. 2016). Nonetheless, fake news and misinformation routinely circulate in online communities because they can host hyper-partisan echo chambers where hints of truth are varnished and spun with exaggeration, distortion, and bias

confirming frames. We need to learn more about how online communities amplify the spread and impact of fake news.

As for organizations, we know little about the impacts of fake news on corporate reputations, or how organizations may propagate fake news to advance their economic interests. The broader transformation of the field of news production and consumption from analog news media to digital platforms and ecosystems also has ramifications for how social evaluations of institutions' legitimacy, reputation, and status are made. As a derivative of this institutional transformation, fake news erodes the shared reality at the basis of society's public sphere. Ultimately, as Hannah Arendt (1967) points out, we need to consider how fake news could pose a fundamental threat to democracies.

Therefore, for this issue, we will address questions such as "does exposure to fake news affect individuals' voting behaviors or political attitudes?", "how do fake news on digital platforms and online communities affect values and discourse in organizational, institutional, and societal contexts?", "does fake news impact the triple bottom lines of businesses?", and "how does fake news impact democracies, social capital and other societal outcomes such as health and environmental sustainability?"

Issue 3: Mechanisms and Remedies

Under this issue we consider how and why fake news is generated, diffused and consumed, and consequently, what the most effective remedies to combat fake news might be. A range of political, ideological, economic and other motives are believed to propel the generation and propagation of fake news

> *It is not technology which determines whether or not communication is authentic, but rather the human heart and our capacity to use wisely the means at our disposal (Pope Francis 2016)[2].*

(Allcott and Gentzkow 2017; Bakir and McStay 2018). Further, and of particular interest to IS scholars, we consider how social media platforms' affordances and policies encourage the propagation of fake news (Gillespie 2018). Then there is the question of consumption: do people believe and share fake news because of motivated reasoning, or in fact, due to a lack of any type of reasoning at all (Pennycook and Rand in press)?

Then we focus on the remedies: given the mechanisms discussed earlier, what socio-technical interventions might be effective at inoculating individuals, groups, and organizations against fake news? Should we focus on empowering and educating individuals (both consumers and administrators/moderators), developing new systems (algorithms and features), and/or designing socio-technical features (e.g., nudges, incentives, rules, penalties, source verification, fact checking)? Should we focus on new digital business models of news production, dissemination, and platform governance and policies? What capabilities can organizations use to mitigate reputational risks in dealing with fake news on digital advertising platforms? How can digital platforms fulfill their moderation duties, and what governance practices are best suited to control the production, spread, and consumption of fake news? Is it time to discuss censorship as a mitigation strategy? But, in that case, who decides what is fake and what is genuine?

Issue 4: Opportunities for IS Research

Under this issue, we discuss how extant IS research can contribute to the study of online fake news and the opportunities for IS research moving forward. We suggest that IS already has a trove of relevant theories, methods, and empirical findings to bolster and expand the emerging IS research on fake news. Examples include the literature on social media and online communities (e.g., Oh et al. 2013), online product reviews (e.g., Lappas et al. 2016), deception (e.g., George et al. 2018), phishing (e.g., Moody et al. 2017), recommender systems (e.g., Adomavicius et al. 2013), behavioral models of information/knowledge sharing/hiding (e.g., Staples and Webster 2008), and platform governance (e.g., Gregory et

> *There is today a special need for propaganda analysis. America is beset by a confusion of conflicting propagandas, a Babel of voices, warnings-charges, counter-charges, assertions, and contradictions assailing us continually through press, radio and newsreel (U.S. Institute for Propaganda Analysis 1938).*

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[2] http://time.com/4190148/pope-francis-apple-ceo-tim-cook/ (accessed 2019-04-29)

al. 2018; Tiwana et al. 2010). In addition, we will consider some less studied but potentially fruitful areas such as information policy, platform moderation, and business models for information goods. Consequently, here we examine questions such as "what should our research priorities be?', "what are some of the most intriguing theoretical lenses and empirical findings from IS research to help inform fake news research?", "what are the most promising research designs for the study of fake news (e.g., experiments or field experiments, secondary data, AI and analytics etc.)?", and "what are some of the ethical and pragmatic challenges associated with studying fake news?"

Panel Structure

The panel includes three senior IS scholars (Alan Dennis, Dennis Galleta and Jane Webster) with years of editorial experience and top-tier publications. To make our discussions and the emerging research agenda diversified and inclusive, our panel represents scholars from different regions and at different levels in their academic careers. Specifically, while the senior scholars represent North America, the panel includes a mid-career scholar in Asia-Pacific (Jean-Grégoire Bernard) and an upper-year doctoral student from the Middle East (Ali Khan). Our panelists will reflect on their diverse and unique individual and cultural experiences of fake news throughout the discussions.

Because our main goal here is to put forth an agenda for IS research on fake news, we structure the panel as a series of discussions around the issues outlined above rather than a series of debates. The panel, moderated by Jane Webster, will be highly interactive. The discussion begins with Ali Khan setting the stage by addressing the first issue, that is, providing an introduction to the topic, its importance and relevance, and other initial considerations (for approximately 10 minutes). We allocate 75 minutes to the three remaining issues, divided between the panelists and the audience: each panelist will explain his views on each issue for a maximum of three minutes, followed by at least ten minutes of moderated interaction with the audience in the form of the questions outlined earlier and new ones that arise during our panel discussion.

Finally, Alan Dennis will sum up our interactions in order to encourage further research (for approximately 10 minutes). In addition, he will inform the audience that we will be writing a panel report to be published in the *Communications of the AIS*, as well as developing a special issue on fake news (to be published in one of our top journals).

Biographies and Participation Statement

All participants commit to attend ICIS 2019 and serve on the panel. Confirmed panelists are:

Jean-Grégoire Bernard

Jean-Grégoire Bernard is a Senior Lecturer in the School of Information Management at Victoria University of Wellington in New Zealand. His research focuses on issues pertaining to digital innovation and online communities. He currently serves as Associate Editor of the Communications of the Association for Information Systems and has been Associate Editor for multiple tracks at the International Conference for Information Systems from 2012 to 2018. In 2019, he joins the executive committee of the Association for Information Systems' SIG on the Adoption and Diffusion of IT, serving as program co-chair for the pre-ICIS DIGIT workshop.

Concerning fake news, Jean-Grégoire has published in related areas to fake news, including leadership in online communities as well as the dynamics of online firestorms (e.g., Li et al. 2019; McGillicuddy et al. 2016). He considers online communities as both problem and solution. As pathways to news, online communities and platforms are a powerful resource at the disposal of social movements, organizations, and governments for spreading misinformation that frames public discourse toward their interests and values. Online communities also have the potential to counteract fake news by creating civil public spheres, by crowdsourcing fact-checking, and by engaging in digital activism that challenges the practices of fake news producers and digital platforms. He will argue that renewed IS scholarship embedding online communities and their leadership in their institutional, societal, and technological contexts has great promise in generating answers to the issues raised by the panel.

Alan Dennis

Alan R. Dennis is Professor of Information Systems and holds the John T. Chambers Chair of Internet Systems in the Kelley School of Business at Indiana University. He was named a Fellow of the Association for Information Systems in 2012. Professor Dennis has written more than 150 research papers, and has won numerous awards for his theoretical and applied research. His research focuses on three main themes: team collaboration; fake news on social media; and information security. He is President of the Association for Information Systems.

Alan believes it is now time for governments and social media platforms to enact laws and policies to combat fake news. Over the past few years, he and his colleagues (at Indiana University and the University of Hawaii) have conducted a series of studies on social media user's beliefs in fake news and ways to reduce them. They have found that users are very bad at detecting fake news because the hedonic nature of social media leads them to believe what matches their existing opinions and simply ignore what does not, regardless of what is true or false. Flagging articles or habitual sources of fake news, and changing the user interface have only modest effects. Opponents of censorship often quote Justice Brandeis' opinion that remedy for bad speech is to offer more good speech, but our research shows this will not work because social media users pay no attention to true news that challenges their opinions; it does not exist to them. Instead, we need to start treating fake news like pollution and hold those who create it accountable for the damage it causes.

Dennis F. Galletta

Dennis F. Galletta is an AIS Fellow, a LEO lifetime achievement awardee, Ben L. Fryrear Faculty Fellow and Professor at the University of Pittsburgh, where he serves as Doctoral Director for the Business School. He has published over a hundred articles, conference papers, and books. He serves as an MISQ Senior Editor and a JMIS editorial board member. He has won multiple awards, including an MISQ "Developmental Associate Editor Award" and Pittsburgh's Provost Mentorship Award. He chaired the first AMCIS in 1995, was program co-chair for AMCIS 2003 and ICIS 2005, and co-chaired ICIS 2011. He served as AIS President, ICIS Treasurer, AIS Council Member, and Editor-in-Chief of AISWorld. He established the concept of Special Interest Groups in AIS in 2000 and was the founding co-Editor-in-Chief of AIS Transactions on HCI from 2008-2018.

In terms of fake news, Galletta has conducted studies in the related area of phishing (e.g., Moody et al. 2017) and has launched a two-study project to research fake news. Study 1 investigates the role of emotions in feelings about fake news reports. That study makes use of an inventory of feelings to detect what feelings are activated when reading fake political news headlines that are (1) consistent and (2) inconsistent with subjects' political leanings. The second study will limit the measurements to only the activated feelings found in study 1, and will measure emotions both before and after the readers find out the reports are fake, to see what feelings are activated after the headlines that are on both political extremes are shown to be false. We will also determine if the readers are so convinced that the fake news stories are real that their beliefs persist. Tracking the participants' political stances and emotional reactions provide rich opportunities to find some early clues into peoples' motivations for reading and spreading fake news, even when they know it is false.

Ali Khan

Ali Khan is a PhD candidate in Management Information Systems at the Smith School of Business at Queen's University in Canada. He has presented his work at a variety of conferences, including the International Conference on Information Systems. He is a recipient of the Alan R. Dennis Doctoral Award at Queen's University.

Ali's interest in fake news stems from his concern with the wide-spread circulation of false information on social media and messaging apps popular among Iranians. He is currently interested in conceptual aspects of fake news (Khan and Webster 2019): he believes that fake news is part of a bigger problem of false information, which appears in many forms and guises. Further, because of his geographical background, he is more inclined toward 'soft' approaches to combating false information such as sensitizing and educating

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