

Editorial for the Special Section on Research on Applied Ethics: Developing Ethical Guidelines for Social Media Analytics

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The enormous growth of social media usage has led to an increasing accumulation of data, which has been termed Social Media Big Data. Social media platforms offer many possibilities of data formats, including textual data, pictures, videos, sounds, and geolocations (Stieglitz et al., 2018). This diverse social media data has spawned numerous attractive opportunities for researchers and practitioners to analyse social media users and their behaviour.

We have seen the use of social media data for the benefit of individuals and society, but we have also seen problems emerge when social media data is not managed and used within specific frameworks and with specific intent. For example, during crisis situations like the recent onset of the COVID-19 pandemic, social media data analysis could have been used to develop better situational awareness. This in turn would have allowed tailoring of messaging and the propagation of public health information in real-time, such as the location of outbreaks, to help minimise human movement and resulting health impacts. If not managed and analysed properly, however, social media data might have the opposite effect by causing complacency in those who are not directly impacted by the situation (Mirbabaie et al., 2020). Social media data, and its analysis, is complex. For companies, social media data can be investigated to identify new trends or ways to improve their products, but equally it can be used to damage their reputation by disgruntled or malicious parties. Therefore, social media data can be analysed not only by researchers, who are obliged to adhere to specific, and ethical, frameworks, but also by journalists, political parties, and companies to sell their products and ideas to social media users, who are most open to their messages, but can equally be used to cause panic, complacency, or reputational damage.

This form of microtargeting raises a scientific and societal discussion about the ethical implications of profiling social media users. While some users might enjoy being confronted with news, politics and advertisements which match their mindset, the profiling of social media users can be a double-edged sword. The often highly personal data i.e., extracted social media data, can range from sexual orientation and religious beliefs to ethnic background, and might be misused in ways that we previously outline. For instance, undemocratic societies could be interested in identifying potential regime opponents, and the leaders of democratic societies can misuse social media data to spread fake news and influence opinion formation processes, as was highlighted by the Cambridge Analytica Scandal.

Furthermore, social media analytics, as an analysis of big data with help of machine learning algorithms, is confronting IS researchers with typical epistemic concerns. The way that

conclusions are drawn from the data that is tracked by researchers can lead to inconclusive, inscrutable, and misguided evidence (Mittelstadt et al., 2016). So, there is a huge ethical concern for academics and industry alike, as wrong conclusions about individuals might be drawn, bearing in mind that social networks do not always reflect the society as a whole e.g., the widely researched platform Twitter attracts a special user group (Boyd and Crawford, 2012). Researchers sometimes lose track of what are simple correlations of data and what can be interpreted as a causal connection (Illari and Russo, 2014). In reaction to numerous data scandals, many official and legislative bodies have developed stricter data protection regulations. For instance, the General Data Protection Regulation of the European Union came into force in 2018 and it confronts social media researchers with new standards on how to track, store and analyse data (EU, 2018).

Researchers now find themselves in a conflict with individual data protection laws and regulations and research objectives including the analysis of personal data that may contribute to the greater good of society (Bunker et al., 2019). If this conflict limits the possibilities of researchers to investigate and understand social media platforms, it will increase the knowledge divide between platform providers, that own and use all the data, and researchers who are limited by restricted access, terms of trade and ethical concerns. The analysis of social media data in crisis situations to support emergency service agencies, is one example where such research has a morally good aim.

Zook et al., (2017) developed rules for responsible big data research, so to motivate this special section of AJIS, and with this type of approach in mind we posed the question what constitutes ethical rules and approaches of responsible social media analysis?

This special section presents four very different responses.

Marx & Mirbabaie (2022) motivate the ethics of social media analytics (SMA) debate by developing a scoping review of the extant literature to outline a critical research agenda for IS scholarship. Their review outlines eight fundamental principles for ethical SMA research, to develop a starting point for research ethical conduct. Simultaneously, their research also highlights the many and varied ethical dilemmas that are yet to be solved. They urge IS scholars to find their distinctive voice in the debate on SMA research ethics.

Eismann, Fischer-Preßler & Fischbach (2022) analyse COVID-19 contact tracing apps that have been adopted in Australia, France, Germany, Japan, and New Zealand identifying the normative and technical principles in their privacy-sensitive design. By using the Restricted Access/Limited Control (RALC) account of information privacy for their analysis, they discuss how these apps protect user privacy and develop an understanding of information privacy from the designs of these apps. Their findings can be used to inform future app design and development of privacy approaches under certain contexts. Their work in their own word "bridges the gap between ethical design guidelines and technical analyses of specific implementations".

Jung, Clausen, Franzke & Marx (2022) propose an SMA framework adapted from Stieglitz et al. (2018) by extending it using the design science research (DSR) cycles as developed by Hevner (2007). They extend the SMA framework by incorporating ethical reflection phases assessed through evaluation by focus groups and questionnaires with ethics board members and SMA experts. Their extended framework provides simplified ethical guidance for

researchers and facilitates ethical self-reflection where projects involve the use of social media data.

Finally, Soh, Smith & Dhillon (2022) look at the relationship between social capital and social media addiction by looking at privacy self-efficacy. They highlight the differences in social media users' usage purposes i.e., some users build network bridges, while others focus on increasing the strength of network bonds. They conclude that "the relationship between social capital and social media addiction is moderated by social media user privacy self-efficacy". Their broader findings relating to this conclusion make a valuable theoretical contribution to SMA research and have implications for practice.

We know that you will find these papers make an interesting and valuable contribution to the debate on ethical rules and approaches for responsible SMA and take this area of enquiry further forward by opening debate within our field of enquiry.

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