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## HEALTH DEBATES ON SOCIAL MEDIA: LINKING DIGITAL HEALTH TO COMMUNICATION AND AI STUDIES

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Drawing on the examples of current health debates on social media this paper explores the broader theoretical question how we may expand our understanding of 'health data' to include health debates and discussions on social media, and further, how these can be linked to the concepts of digital health data assemblages (Lupton, 2016) and communicative others (Gunkel, 2012). Media and internet studies have a rich tradition for studying discussions and debates about health on social media from diverse content, discursive, user, and platform perspectives. While such research typically asks how people communicate *through* data, this paper asks how our understanding of health discussions online might change, if we instead adopt a perspective where humans and data are engaged in a co-constructive relationship, that is to say, where people communicate *with* data.

In health debates, Twitter has become a place where controversies unfold, and it is hence valuable to study them in-depth. However, as scholars from critical media studies and science and technology studies (STS) have argued, adopting a solely content-focused approach to studying these debates is not especially helpful for understanding the significance of these debates. This is due to the fact that in such an approach, researchers cannot be sure that they are analyzing the actual controversies and not the digital settings that render them (Marres 2015; Venturini and Guido 2012). Researchers must therefore also explore how digital technologies participate in the enactment of controversies online and take an interest in how they inflect the forms it takes (Marres 2015).

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This paper examines the collected empirical material from the angle of a core question asked in case study research, namely: what is this data then a case of (Flyvbjerg 2006)? Taking this question into a more specific arena for health studies, we ask how we may see the data as examples to understand contemporary practices of digital health, as well as the challenges in researching this. By combining insights from STS, AI and communication studies and insights into the human-data relationship from digital health studies, this paper will provide a novel perspective on health debates in these digital health contexts, and further explore what this means for researchers engaging in discussions about health online.

Drawing on theory about materialism and non- or more-than human agency, digital health scholar Deborah Lupton (2016) argues for seeing digital data as a part of everyday health assemblages. The idea of assemblage can here be used twofold, as a way of understanding a phenomenon and a methodological approach to studying them. Adopting a mediatization-like approach to contemporary health practices, Lupton argues that data are a part of everyday health assemblages, made up of multiple and intersecting practices rooted in both online and offline life (see also Hepp 2020). However, as a methodological approach, thinking about the human-data relationship as an assemblage, that is in a constant process of co-construction, hones our attention towards how the human and non-human live together and learn from each other, as well as the complex processes of meaning-making, tinkering and exploration that takes place between these actors (Lupton 2016, 2-3). While this perspective has been developed in relation to self-tracking technologies and the data this generates, we suggest that it may be expanded to also include communicative practices online more generally. For this, we draw on perspectives from AI, communication and algorithmic research. Working with issues of AI and communication, David J. Gunkel (2012) argues that due to the raise of artificial intelligence humans have started to communicate *with* machines rather than *through* machines; this implies an exchange and negotiation process of meaning between human and machines that no longer can be ignored. Inspired by Gunkel and based on the analysis of our empirical material, we take this thought even further and argue that people have started to communicate *with* their health data. As the social media underlying material structure has become algorithmically interwoven, social media data can no longer be viewed as a pure mediator but has become an active communicator.

The proposed conceptual lens provides further new research questions for researchers working with health-related data on social media about the ontology of this data and how we may study it. We therewith contribute towards a novel understanding of social media data as a part of both contemporary health data assemblages and the mediatization of health practices in contemporary society; and describe the human-data relationship through a communicative, co-constructive lens. The paper thus theoretically links digital data assemblages with communication and AI theory which provides tools to think about health data as relational and communicative. With this, social media data becomes relevant in a new light, not only for media scientists, but also for understanding health practices in a digital age more generally.

In conclusion, the paper discusses issues this theoretical perspective raises for researchers of social media and online health engagement; what challenges and

possibilities this provides in relation to studying social media discussions on health; and finally, an overview of analytical strategies and empirical fields from which these perspectives may be studied.

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