

Call for Papers

Algorithms and Communication

Edited by

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The role of algorithms for producing and curating content as well as potential outcomes of these mechanisms is one of the most discussed issues in existing communication research. A broad variety of communication fields and processes are currently touched on by algorithms, ranging from news exposure, public opinion forming, information retrieval, and political communication processes among others. However, little is known about the operating modes of algorithms and to study them is empirically challenging. As such, algorithms shape communication processes as “hidden actors” and might form a breeding ground for concerns and fears about their negative impact. Public and scientific debate about whether Trump won the elections with the help of microtargeting-techniques or if the Brexit-vote would have been different without the (assumed) algorithmic driven campaign of the Brexiteers are just two popular examples.

However, besides this discourse pointing to a predominantly negative or alarming role, a scientific sound and objective consideration of algorithms as actors in digital (mass) communication is still scarce and communication research has just started work on that field.

Therefore, it is the aim of this special issue of *Digital Communication Research* to present current perspectives, research strategies and results from communication scholars on “Algorithms and Communication”. As such, we search for theoretical and empirical research papers as well as systematic literature reviews

that scrutinize the role of algorithms in digital communication processes from various perspectives. Papers might be dedicated (but not limited) to the following sections:

- 1. Algorithms and communication processes:
Definition, operating modes, risks and benefits**

This section aims to raise general knowledge about the role or importance of algorithms for different communication processes and to discuss the potential frameworks that may guide further scientific considerations. As such, questions of interest are: How do we define algorithms in the context of communication processes? Why are they relevant for communication research and what kind of (new) questions do they raise in which kind of research fields? What role do they play in which areas of societal communication (economy, journalism, political communication, news consumption, (inter)personal and private communication)? What do we know about the operation modes of different algorithms (e.g. content-based filtering versus collaborative filtering) on various platforms (e.g. algorithms of (news) search engines, social network sites and video platforms), and how can we evaluate them with regard to potential benefits or risks? What is known about (potential) algorithmic bias or algorithmic (news) values? What do we know about the different types of social bots and how they disseminate which types of information?

2. Perception and reception of algorithmic curated content

Here, the perspectives of recipients interacting with algorithmic curated content are of interest. Questions that might be scrutinized include: Are users aware of algorithmic processes and how do they perceive and evaluate them? Do they see benefits or risks, or both? What are users' perceptions of the phenomenon itself? Do they trust algorithms as content curators and how satisfied are they with algorithmic shaped content? What is known about the level of code literacy among recipients and how does this shape user behaviour? What attempts are currently discussed to raise the level of code literacy in society?

3. Algorithmic curated content and effects on the individual

In this research area, the effects of so-called echo chambers, filter bubbles or information cocoons have already gathered some scientific attention. However, questions about adequate strategies for empirical studies are unanswered and – related to that – the actual extent and impact of such bubbles, cocoons or echo chambers remains unclear. Moreover, theory- and research-based insights on the effects of those concepts on an individual's beliefs, attitudes or opinions, as well as the potential effects, are still scarce. Besides these questions, the special issue also welcomes papers with a more theoretical perspective and discuss questions such as: What is new about concepts such as filter bubbles or echo chambers in comparison to general selection exposure or confirmation bias mechanisms? What role or impact does information acquisition in filter bubbles or echo chambers have on the general information repertoires of the individuals?

4. Algorithmic curated content and effects on society: Public opinion and democracy

Moreover, papers dealing with the potential outcomes of algorithmic driven communication processes on society are of interest for the special issue. On the one side, the effects of information cocoons, filter bubbles or echo chambers might be scrutinized on the societal level: What role does algorithmic curated

content play for opinion forming, building political attitudes or even radical positions and polarization? Does algorithmic curated content have the potential to strengthen or force societal segmentation? On the other side, questions of how interest groups use algorithms or automation in order to launch certain, potentially misleading or at least one-sided points of view are of interest here (e.g. micro targeting attempts, social bot networks and computational propaganda). How are algorithms used for the disinformation (in contrast to misinformation), persuasion and manipulation aims of specific groups in various contexts, such as politics and economics?

5. Algorithms as a case for media regulation, media governance and media ethics

Submitted papers could as well discuss the question of whether and how algorithms or, respectively, organizations or creators behind them should be the focus of media regulation or media governance: What attempts are currently discussed? Which institutions could or should take responsibility for regulation processes? How could this be realized? Moreover, papers presenting knowledge about actors or interest groups trying to shape or influence algorithmic curated information are also of interest here (e.g. search engine optimization): What efforts are made by the organizations to protect themselves against such attempts? What kind of governance structures or ethical codizes exist or should be developed? How relevant are ethical considerations within the creating processes of algorithms?

6. On the future of algorithms in communication processes

Finally, papers that establish future perspectives in this research field are welcomed. As such, the future role of artificial intelligence, machine learning and neuronal networks for communication processes might be discussed. What do we already know about the future of algorithm-curated communication from other fields than communication studies? What can we learn from neighbouring fields, such as Car2Car-Communication, Human-Computer-Communication, or Design Studies?

Submission of papers, review and schedule

- Deadline for extended abstracts: 02/28/2019
- Notification of invitation for submission: 03/31/2019
- Deadline for submissions: 08/31/2019
- Publication of the issue: Winter 2019/Spring 2020

Instructions for Authors

Authors interested in submitting a paper for this issue are asked to send, via email to the editors Christina Schumann (christina.schumann@tu-ilmenau.de) and Monika Taddicken (m.taddicken@tu-braunschweig.de), an extended abstract of two pages (maximum) with a tentative title and reference to the thematic issue by 28 February 2019. Authors will receive notification until 31 March 2019. Deadline for the submission of the full paper is 31 August 2019.

Submission length for the papers should be 8.000 to 10.000 words. Contributions should not be considered for publication elsewhere. This has to be explicitly stated on the cover page. Names must be removed for blind peer reviews.

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