DATA ANALYTICS IN SCIENCE – WHAT IS AT STAKE?

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Abstract:
The datafication of science and its algorithmic assessment are accelerating at a rapid pace. The digitization of academic publishing jointly with technological developments such as greatly increased storage and computing capacities as well as advanced data harvesting techniques have opened up an abundance of new data sources that are referred to as information about research "output", "impact", and "performance". Besides publications and their citations, data about related research organizations, grants, patents, and clinical trials as well as about views, clicks, downloads, or mentions on social media platforms are increasingly becoming available. Persistent identifiers such as the DOI for publications, the ORCiD for authors, or the ROR for organizations moreover contribute to interrelating these data through unambiguously identifying research output and researchers.

This constant growth of data has triggered an unprecedented development of open and commercial databases and data analytics tools and devices turning the provision of research information and evaluation into "a crowded marketplace" (de Rijcke & Rushforth 2015). Private companies and community-based initiatives constantly generate new ways for extracting and assessing data while arguing for the benefits of the "retrievability", "traceability", and "accountability" of research and researchers. The increasing and rather uncontrolled aggregation and interrelation of data about researchers and their work, however, raises questions on the ways and consequences of the sociomaterial interplay between technology, its providers, and its users and the political economy behind it: How and by whom are these data and the respective devices provided and put into use? And how do they affect the understanding and (e)valuation of science?

The panel invites contributions that (1) address how these data and data analytics affect research and researchers, (2) discuss data politics regarding access, ownership, and questions of data protection, (3) investigate how the rationales and functionalities of data analytics influence evaluation practices, or (4) focus on the marketization and assetization of data on research and researchers within and beyond academia.

Key words:
data analytics, research evaluation, critical data studies