

## IPKM - Institut für historische Publizistik, Kommunikations- und Medienwissenschaft

### Commentary to the following seminar in summer term 2019

Veranstalter\*in Prof. Dr. Yannis Theocharis

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Titel (dt.):

Titel (engl.):

MA Methods Seminar: Fundamentals of Computational Communication and Social Media Data Analysis

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#### Beschreibung:

The rapid digitalization and spread of digital communication is changing our social, political and economic world in unprecedented ways. Digital footprints left behind by humans using digital tools have the potential to provide new angles for understanding social phenomena. Digitally enabled communication opens up completely new avenues for social and political interaction that have radical effects on political information environments, and the democratic attitudes and behaviours they shape. Computational methods for analyzing communication structures and processes are at the epicentre of these developments. This course is aimed at providing students with an understanding of how computational methods are used in communication research. Aside from gaining the necessary theoretical background for understanding the opportunities and challenges of so-called “big data” in communication research and in the social sciences more broadly, students will learn how to access social media data and develop skills for conducting basic analysis which can be connected to core theoretical questions. The course structure is as follows: after being introduced to some fundamental ideas about the opportunities and challenges emerging from the rise of computational social science and big data, students will receive training in the statistical programming platform R, and the visualization software Gephi. As the course will focus on Twitter – currently the most prominent communication tool in political communication students – student will learn how to use R to access, download, analyze and visualize Twitter data, with an emphasis on network and text analysis. Students will get the opportunity to collaborate and build group projects on topics of their choice using data they have collected themselves. This learning structure aims to provide a foundation for building skills in computational methods that can be applied above and beyond the context of this course.

#### Literatur:

- Salganik, M. (2017). *Bit by Bit: Social Research in the Digital Age*. New Jersey: Princeton University Press.
- Jungherr, A. (2015). *Analyzing Political Communication with Digital Trace Data: The Role of Twitter Messages in Social Science Research*. New York: Springer.
- González-Bailón, S. (2018) *Decoding the Social World: Data Science and the Unintended Consequences of Communication*. Cambridge: MIT Press.
- Ackland, R. (2013). *Web Social Science: Concepts, Data and Tools for Social Scientists in the Digital Age*. New York: Sage.