

## Fachbereich 9 - Medienstudiengänge

Department 9 - Media Courses

### Kommentar zur Lehrveranstaltung im WiSe 2024/2025

Description of seminars

**Veranstalter\*in:** Prof. Dr. Cornelius Puschmann

*Lecturer:*

**Titel (dt.):** Introduction to Digital Methods

**Titel (engl.):** Introduction to Digital Methods

(immer  
angeben)

#### **Beschreibung:**

*Description:*

Digital media and mobile communication have a profound impact on virtually all aspects of society, from politics to culture and interpersonal relationships to the economy. Traditionally, media and communication scholar study specific aspects of society – journalism, political communication or media effects – through quantitative and qualitative methods that the social sciences have relied on for decades. Yet the vast amount of data generated by connected digital devices makes it appealing to complement these approaches with computational techniques.

The social scientific methodological orthodoxy has become more fluid in past years, as novel computational methods and approaches, from fields such as computer science and computational linguistics have become increasingly attractive to social scientists. This class will provide an overview of digital methods as a set of procedures for analyzing digital traces (Manovich, 2016; Rogers, 2013; Salganik, 2017; Shah, Cappella & Neuman, 2015; Sloan & Quan-Haase, 2016), as they are increasingly applied within interdisciplinary communication and media research. Examples of specific methods include network analysis supported by crawlers or application programming interfaces (APIs) (Himmelboim, McCreery & Smith, 2013; Häussler et al., 2017, Kaiser & Puschmann, 2017), sentiment analysis (Ceron et al., 2014; Papacharissi & de Fatima Oliveira, 2012; Young & Soroka, 2012), topic models (Jacobi, van Atteveldt & Welbers, 2016; Rauchfleisch, 2017), and the use of guided machine learning methods for automated content analysis (Scharrow, 2013; Schwartz & Ungar, 2015; van Atteveldt et al., 2008). Such methods are gaining importance due to sustained data growth in the course of digitization and are used in a wide variety of contexts, such as in the analysis of search engines, social media platforms, e-commerce applications, public databases, and, in the future, increasingly in the context of sensors and Internet-enabled devices in the so-called Internet of Things (cf. Hepp, 2016).

The class will provide an in-depth overview of digital methods in communication research by pairing foundational theoretical and conceptual readings with current research papers in this nascent field.

A non-graded standardized diagnostic test will be administered at the end of the semester to assess your expertise in both traditional social science and digital methods. In addition, a short written homework must be turned in to complete the class.

#### **Literatur:**

*Literature:*

Rogers, R. (2019). Doing Digital Methods. Sage

Salganik, M. (2017). Bit by bit: Social research in the digital age. Princeton University Press.

Engel, U. et al (2022). Handbook of Computational Social Science. Routledge.