Understanding Social Structure and Behavior through Responsible Mixed-Methods Research: Bias Detection, Theory Validation, and Data Governance

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Dieser Vortrag wird auf Deutsch gehalten/This lecture will be given in German

Working with reliable data, metrics, and methods, as well as valid theories, is essential for advancing the computational humanities and social sciences. In this talk, I present our research on the following question: 1) How do limitations related to the provenance and quality of digital social data impact research results? I present on the impact of commonly used techniques for name disambiguation on the properties and dynamics of social networks, highlight measurement-induced biases in metrics and theories, and address means for mitigating these limitations. 2) How can we combine methods from natural language processing and network analysis to jointly consider the content and structure of social relations? I provide an example where we applied domain-adjusted text mining to enhance social networks to validate a classic social science theory in a contemporary setting. 3) How can we assess the impact of information and science on people and society beyond using bibliometric methods? I present our work on predicting the impact of media on individual behavior, cognition, and emotions, and measuring the long-term impact of scientific research on society. 4) When working with human-centered and online data, how can we comply with data governance regulations while still do innovative work? I discuss challenges and opportunities for using digital social data in responsible and practical ways. Overall, the work presented in this talk contributes to making sense of qualitative, distributed, and multi-modal data in a scalable way; and advancing the transparency, responsibility, and ethics of computing and technology as applied to trying to better understand society.