Institut für Digitale Geisteswissenschaften

Department of Digital Humanities









Lunchtime Lecture

30.10.2024, 12:00 (s. t.)

Institut für Digitale Geisteswissenschaften, Elisabethstraße 59/III, Lehrsaal SR 81.31 UniMeet-Link: https://unimeet.uni-graz.at/b/bau-r0l-mcw-72

Wolfgang Göderle

Universität Graz

Unlocking the Schematismus: Challenges in the application of machine learning to serial sources in modern history

"Unlocking the Schematismus" aims to transform a vast 19th century Habsburg bureaucratic directory into a research database using machine learning. Key challenges include developing OCR and layout detection models robust enough to handle 150 years of evolving formats and fonts, entity resolution across volumes to track careers over time, and creating a knowledge graph flexible enough to represent complex historical relationships. The project must balance automation with expert historical knowledge to produce reliable data while uncovering new insights about the Habsburg middle class and state formation. This interdisciplinary effort pushes the boundaries of applying AI to serial historical sources at scale. The presentation will address the key challenges we have faced so far.



Wolfgang Göderle specializes in modern Habsburg Central Europe (c. 1700-2000), exploring social, economic, and environmental history, particularly the Anthropocene, by means of qualitative and quantitative analysis. Fields of his expertise include: Environmental History, History of Science and Technology, Imperial History of the late Habsburg Empire, Anthropocene. His Electrical Engineering background fuels a keen interest in digital tech, with recent focus on machine learning and artificial neural networks. Currently, he is scaling up ML-driven historical data extraction for a deeper historical analysis, focussing on the Franc. Cadastre and the Schematismus.

All Lunchtime Lectures can be streamed as hybrid events but a room is also reserved for in-person attendance at the Department of Digital Humanities, Elisabethstraße 59/III, 8010 Graz