

Research Colloquium of Professorship of Predictive Analytics

Risk and Sustainability in Heritage and Archaeology Data Infrastructures

Jinyue Zhang

Monday, 3:30 p.m. – 5:00 p.m., May 19, 2025

Location: Reichenhainer Straße | 31/33, C43 **Online:**
<https://webroom.hrz.tu-chemnitz.de/gl/san-c56-fzk-lac>

Abstract:

Advancements in information technology and evolving user needs are transforming data usage in archaeology and heritage studies, with increasing efforts in digital preservation to combat threats like environmental damage and destruction of cultural sites. This research examines how to ensure the long-term survival of digital cultural heritage through sustainable software design and robust data infrastructures, analyzing risks such as system failures, policy issues, and funding challenges. Using a mixed-methods approach, the study integrates interdisciplinary perspectives from archaeology, digital heritage, and information science to assess data infrastructures across China, the UK, and Germany. It identifies vulnerabilities and opportunities for improvement, emphasizing intelligent monitoring, digitization, public presentation, and user experience design to support sustainable heritage practices globally.

About the Speaker:

Jinyue Zhang earned a BSc in Information Systems Management from UST Beijing and an MSc in Management and Systems from NYU. Before beginning her PhD at UCL, she spent six years as a software product manager in China, focusing on digital publishing and heritage preservation systems. Her interdisciplinary expertise in information systems and heritage technology informs a research project that integrates information management, archaeological data science, and digital heritage to advance sustainable, global best practices in cultural heritage data management.

