



## Round Table

# Preserving the Past for the Future: Navigating Challenges in Long-term Digital Archiving

### **Chairpersons:**

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### **Description and Motivation:**

In the digital age, the preservation of cultural heritage presents both significant opportunities and formidable challenges. The continuous evolution of metadata standards, ontologies, and long-term archiving practices is reshaping the field. Concurrently, sophisticated data management systems and artificial intelligence (AI) tools are enhancing analytical processes and fostering public engagement. This Round Table aims to address the often-overlooked side effects of long-term digital archiving, particularly concerning the diverse forms and formats of cultural heritage outputs. Without deliberate strategies, these outputs risk being lost in a "digital dark age." Central to the discussion is the role of FAIR principles (Findable, Accessible, Interoperable, Reusable) as a framework for developing resilient archival systems. Moreover, the session will examine how these principles intersect with ethical guidelines, such as the CARE principles (Collective Benefit, Authority to Control, Responsibility, Ethics), ensuring that digital cultural heritage resources respect the rights and values of diverse communities and stakeholders.

The discussion will also highlight the importance of standardised solutions and strategies for addressing the unique challenges posed by major initiatives such as Germany's National Research Data Infrastructure (NFDI). A key focus will be on incorporating a broad spectrum of special cases to ensure the inclusivity and effectiveness of these strategies.

This Roundtable should address topics like:

- Can storage-intensive technologies, such as 3D modelling and image based modelling (e.g. structure-from-motion), identify non-essential research data that need not be archived? If so, how might a generalised specification for such "redundant" data be developed? Alternatively, is adopting a "data minimisation" or "data thriftiness" approach during data creation the only viable strategy for reducing archival complexity and efforts?
- Does selective data archiving hinder future scientific use of archaeological and cultural heritage data? How can these risks be mitigated while maintaining sustainability in digital preservation?
- How can emerging technologies enhance preservation planning processes such as emulation and migration? Can these tools streamline the preparation of data for archiving, including the creation of Archival Information Packages (AIPs) and Dissemination Information Packages (DIPs)? Are there best-practice examples of automated processes in this context?

**Target Audience:**

This Round Table is designed for a diverse audience, including archaeologists, cultural heritage professionals, data scientists, archivists, museum curators, digital humanists, technologists, and policymakers. It will also appeal to researchers in digital humanities and computer science who develop or apply archival technologies. Participants should possess foundational knowledge of digital preservation principles, as the session aims to provide advanced insights and foster collaborative opportunities for experienced professionals.

**Keywords:**

Long-term Archiving; Cultural Heritage; Digital Heritage; FAIR and CARE Principles; Data Management

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