Session

Entry ID: 195

Title: **AI FOR CH: ENABLING A PARADIGM SHIFT IN THE ERA OF CLIMATE CHANGE? Artificial Intelligence for Monitoring, Analyzing, and Reacting to the Climate Change impact on Cultural Heritage**

Description (250-300 words required)

The proposed session aims to explore the revolutionary potential of integrating Data and Visualization Technologies, especially Graph Databases and Semantic Web technologies as CIDOC-CRM, for Cultural Heritage research and dissemination. This integration promises a transformative approach to data interpretation, offering dynamic, query-friendly systems that enhance data explainability. By adopting a common framework for trans-project data accrual, the session will demonstrate how semantic-visual dimensions allow for the exchange and comparison of data across projects, facilitating a unified CH knowledge base.

We will delve into the benefits of these technologies for Cultural Heritage, including their role in enhancing data interpretability for both human analysts and AI-powered applications. The session will showcase innovative ways to infer missing data, reconstruct historical phases, and identify stylistic linkages, all while maintaining a reversible and flexible knowledge creation process.

Furthermore, we will explore the potential of low-code/no-code solutions and visual programming languages in democratizing technology use in CH, enabling professionals with varying technical backgrounds to contribute to, and access, CH data more readily and meaningfully. The session aims to highlight how a streamlined, visually interpretable data structure can foster more flexible, hypothesis-driven research and knowledge creation in Cultural Heritage.

Motivation:

The motivation behind this session is to address the growing need for accessible, interpretable, and dynamic data management solutions in the Cultural Heritage sector. By presenting case studies and theoretical frameworks, the session will provide a comprehensive understanding of how Graph Databases and Semantic Web technologies can revolutionize CH data practices, making them more inclusive, interoperable, and insightful.

Target Audience:

Targeted at cultural heritage scholars, PhD candidates, professionals, data scientists, archaeologists, museum curators, digital humanists, IT specialists, and experts in architectural representation, this session caters to those eager to expand their use and understanding of advanced data visualization and semantic data structures within cultural and architectural domains.

Keywords (3-5 keywords required):

Cultural Heritage Data, Graph Databases, Semantic Web, Architectural Representation