

5th DARIAH-HR International Conference Digital Humanities & Heritage 2025

22-24 October 2025

Josip Juraj Strossmayer University of Osijek – Academy of Arts and Culture in Osijek and Faculty of Agrobiotechnical Sciences Osijek

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5th DARIAH-HR International Conference

Digital Humanities & Heritage: Rethinking Heritage across STEM, Humanities, and Arts

Conference Dates: 22-24 October 2025

Conference organisers: DARIAH-HR / Institute of Ethnology and Folklore Research, Zagreb; Josip Juraj Strossmayer University of Osijek – Academy of Arts and Culture & Faculty of Agrobiotechnical Sciences

We are pleased to invite you to the interdisciplinary conference **Rethinking Heritage across STEM**, **Humanities**, and Arts, which will be held in Osiiek, Croatia, from 22 to 24 October 2025. The conference aims to bring together researchers, experts, and practitioners from STEM fields (science, technology, engineering, and mathematics), humanities, arts, and the cultural and creative industries (CCI) to explore innovative approaches

The European Commission has been increasingly encouraging synergy between STEM and the humanities, as well as cooperation with the arts and creative sectors. Initiatives such as the European Framework for Action on Cultural Heritage and the European Collaborative Cloud for Cultural Heritage promote models in which technology and culture create new opportunities for innovation, research, and societal development

In this context, we invite submissions that critically engage with the intersection of digital technologies and the humanities, exploring how tools like big data, algorithms, and Al shape our understanding of cultural heritage, social phenomena, and artistic practices. Submissions should address the ethical, epistemological, and cultural implications of these technologies, particularly in terms of biases in data, representation, and the potential marginalization of certain communities within digital archives. We encourage critical reflections on how these technologies influence both the creation and interpretation of knowledge in the humanities, while considering the broader societal and cultural consequences of their application.

We invite participants to reflect on and discuss the following topics:

STEM + Humanities: New Interdisciplinary Solutions

- How can STEM and the humanities collaborate to address societal challenges?
- Digital humanities and the role of data science in cultural research
- Applying ethics and philosophy in the development of new technologies
- Ethical and epistemological challenges arising from the application of digital technologies in interdisciplinary research.

Creative Synergies: Art and Technology

- Artistic practice as an innovation tool in STEM fields
- Al and creative processes: how artificial intelligence is shaping art and design
- Interactive media, augmented reality, and new storytelling models
- The use of digital technologies in artistic practices to create new cultural narratives.

Cultural Heritage in the Digital Age

- Cultural and epistemological implications of digitizing cultural heritage with technologies like 3D scanning
- Smart museology: Al and big data in the analysis of cultural artifacts
- Open data and accessibility of digital heritage; How can a critical approach to open data help address issues of exclusion and marginalization of certain communities in digital archives?
- The influence of digital tools like big data and algorithms on our understanding of cultural heritage.

Cultural and Creative Industries as a Bridge between Science and Art

- Entrepreneurship in CCI: How scientists and artists can develop projects together
- New funding models for interdisciplinary initiatives in the EU
- Collaboration between industry, academia, and independent creatives

Keynote speakers: Marinos Ioannides (Director of the UNESCO Chair on Digital Cultural Heritage, Cyprus $University of Technology) and {\color{red}\underline{Ines\ Vodopivec}} \ (Secretary\ General,\ Al4LAM\ -\ Artificial\ Intelligence\ for\ Libraries,\ Al4LAM\ -\ Artificial\ Al4LAM\ -\ Artificia$ Archives and Museums and Member of the Europeana Network Association Management Board)

From a Cultural Heritage Object to a #DigitalTwin or a #MemoryTwin?

Exploring the Future of Digitisation, Preservation, Interpretation, and Identity in the Digital Age

Speaker: Marinos Ioannides



Connecting Dots with AI - STEM and **Digital Humanities at a Crossroads**

Speaker: Ines Vodopivec



Abstract:

In the era of the 21st digital century, where cultural heritage is increasingly mediated through digital technologies, the concept of a Digital Twin – a precise virtual replica of a physical object – has become a powerful tool for the multidisciplinary user society in research, preservation, visualisation, and education. Yet, as we replicate cultural heritage assets such as artefacts, monuments and spaces with ever-greater accuracy, a critical question arises: are we also preserving the knowledge, stories, meanings, memories and unique identities that give these objects their cultural significance?

This presentation explores the emerging notion of the #MemoryTwin: a complementary or alternative digital model that prioritises intangible heritage, emotional resonance and community memory. While #DigitalTwins focus on material fidelity, #MemoryTwins seek to capture the narratives, traditions, lived experiences and associated values of cultural heritage objects. Those are the elements that are often overlooked in the current period of purely technical reconstructions.

Drawing on interdisciplinary research and real-world case studies, the talk will illustrate how #MemoryTwins can expand our understanding of authenticity, foster inclusive interpretation, and empower communities to take part in the digital stewardship of their heritage. It will also address the ethical, methodological, and technological challenges involved in embedding memory and identity into digital heritage projects, and highlight how the digitisation of the past can contribute to the circular economy and improve the well-being of future generations by promoting sustainable access, reuse, and cultural resilience.

Abstract:

The AI for Libraries, Archives and Museums (AI4LAM) community represents a global, cross-sectoral network dedicated to advancing artificial intelligence within the cultural heritage domain. As digital transformation reshapes the landscape of heritage institutions, AI4LAM fosters interdisciplinary collaboration between technologists, humanists and artists, aligning closely with the mission of Digital Humanities & Heritage conference in Osijek.

Al4LAM develops and promotes innovative Al tools and services tailored to the needs of libraries, archives and museums: institutions that safeguard the data foundational to digital humanities. These tools offer new possibilities for dialogue and cooperation across disciplines, enabling more efficient data management, enhanced access to collections and novel forms of interpretation and engagement.

By exchanging insights and experiences, AI4LAM supports a collaborative ecosystem that bridges STEM, the humanities and the arts. Its commitment to open science principles ensures that knowledge remains transparent, accessible and participatory. As AI becomes increasingly integrated into LAM infrastructures, researchers gain powerful means to analyse vast datasets, but this also invites us to reconsider foundational concepts. In an AI-driven environment, do we still need metadata as we know it, or must we reimagine its role entirely?

This evolving dialogue between disciplines is not only timely but essential for shaping the future of cultural heritage and digital humanities. Individually, we may move slowly and remain isolated, but together we can go faster and farther. So let us build the digital transformation in a spirit of collaboration!

