

CIVITAS

Chain for excellence of reflective Societies to exploit digital cultural heritage and museums

A pilot case in Palazzo Ducale at Urbino

Digitization of Cultural Heritage is a multidimensional process, that helps in the rescue of European Cultural Identity and to increase awareness of values and memories. Making sense of Europe's Cultural Heritage (CH) means to shape the new reflective societies starting from digital cultural heritage and diffusing adaptive methods for conservation, fruition and social inclusion.

In this context, museums should be more than just places where collections of artworks are preserved and exposed: they should witness identities and cultures. They make culture accessible to the mass audience. The Cultural Heritage collection, conservation and access in novel, accessible and attractive ways demand for digitizing museums and archaeological/historical sites, as well as for designing methodologies to represent, manage and exploit cultural heritage data at different levels, ranging from 3D/4D models to domain specific e.g., architectural, historical, etc. The use of virtual "facsimiles" of artworks, monuments and architectures can unify the scattered elements of them, allow public access to inaccessible places, allow the visitor to interact with perishable objects and promote the preservation of fragile sites and simulate damaged or lost objects. The availability of semantically rich data enables smart applications for fruition, preservation and study of Digital Cultural Heritage (DCH) collections.

The development of virtual museums has the potentiality both to collect and disseminate the cultural heritage in an effectively and low-cost mode and to implement a key strategy to interact with virtual "facsimiles" in order to engage users, increase capabilities thanks to the application of the "learning by interacting" paradigm, to diversify museum's cultural proposals, etc.

In this context, CIVITAS proposes 5 strong Challenges that respectively regard the following topics:

Digitalization of Cultural Heritage at different scales (CH1),

Digital Content Management for 3D/4D semantic-aware models (CH2),

Enhancement of Visitor Experience and Social Inclusion (CH3),

Fruition by multisensory (visual, haptic, sound) Interaction paradigms (CH4),

Business models based on Digital Heritage for Culture, Research, Tourism, Reflective Society promotion (CH5).