



IDEHA

Project co-financed by the European Union ERDF and ESF, PON Research and Innovation 2014-2020

Innovation for Data Elaboration in Heritage Areas

PROJECT GOAL

An intelligent open source system connecting information validated by scientific research for a better knowledge of Italian tangible and intangible Cultural Heritage. IDEHA intends to adopt fruition models for cultural heritage which facilitate the knowledge and a better understanding of the contents and the intrinsic value of the cultural assets. In short, IDEHA makes the invisible visible.

RECOGNITION and VISUAL QUESTION & ANSWERING

A system for technologically-aided visits for cultural heritage in a broad sense, such as museums, exhibits, buildings and archaeological sites. The system exploits computer vision to identify objects of interest and provide information. To foster interactivity, a Visual Question Answering module is capable of answering questions in natural language and a Storytelling module provides visit summaries. Among the goals is the creation of an integrated platform for automatic app development for the Cultural Heritage sector.

SCENE UNDERSTANDING and PEOPLE MONITORING

Deep Learning technologies applied to Computer Vision for the recognition of the cultural site scene and development of state-of-the-art solutions for automatically monitoring cultural sites and their changes, the presence of people, the state of conservation and possibility of tourist fruition.

The goal is to create solutions at limited cost, flexible and adaptable to different contexts both outdoor and indoor in controlled environments for: a) security, vandalism prevention, conservation; b) remote fruition of areas that cannot be visited; c) recognition of the possible uses of the cultural site.

USE CASE SCENARIO

Planning and implementation of experimentations in some test-sites aimed to validate the IDEHA platform on the basis of the qualitative and quantitative targets and of the verification of user samples.

Main test sites has been the Winery of Colosorbo in Montalcino (Tuscany) and the Pinacoteca of Cagliari.