Digital data platforms for heritage-led urban regeneration and historical sites enhancement

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Abstract: (250 to 500 words: for each heading use the bullet points or narrative - the submission including graphics should not exceed one page)

Despite the effort spent to boost the fruition and dissemination of Cultural heritage, in all its multidisciplinary forms, accessibility in a wide meaning is still a priority challenge to overcome the existing barriers. In this perspective, technologies and new digital media are increasingly adopted for promoting and managing cultural heritage, collecting local material and immaterial data and gathering trans-national knowledge. These new tools let users to approach non-specialized information and visualize data locally in different ways. However specific knowledge is still embedded and aggregated in exclusive digital environments with very limited chance of dialogue. Therefore, there is still a lack of interaction between site-specific knowledge and practices with trans-national policies intertwining different tools and data entries.

Two ongoing EU funded projects, namely INCEPTION (Inclusive Cultural Heritage in Europe through 3D semantic modelling) and ROCK (Regeneration and Optimisation of Cultural heritage in creative and Knowledge cities), share the common aim to develop interoperable semantic platforms to enlarge access, fruition, understanding of CH in different ways. The INCEPTION platform deals with semantically enriched heritage 3D BIM models. Based on semantic web technologies, it makes extensive use of RESTful APIs to query and enrich 3D models leveraging on semantic web standards. The ROCK platform deals with local and trans-national data related to historic city centres; it manages and compares static and dynamic information collected in dedicated Atlases used to make data understandable at a glance. Both of them are social digital tools for interchanging information and sharing practices to address CH policies and widen citizenship of CH knowledge.

The innovative aspect deals with the chance to acquire a deeper understanding of Cultural Heritage by organizing and cross-referencing data through advanced data analysis algorithms, as well as human-readable data visualization tools. CH data platforms connect stakeholders coming from different technical and cultural backgrounds (policy makers, private businesses, cultural producers, innovators, tourists, etc.) to boost and support the process of transformation and “consumption” of cultural heritage in cities. This follows a cross-disciplinary approach at all level: from cultural heritage production, including policy making, to valorization of cultural assets, education, business matching, integrated management, etc.

Keywords: (up to 5 keywords)
Semantic platforms; Cultural Heritage integrated management, Sustainable development, City regeneration, Resilience in built environment.

Graphics: (please use the gray area bellow for representative graphics or graphical summary: select the gray area bellow and paste your graphics)