

Chapter 16

Experiences of Digital Survey Data Applied for the Involvement of Societal Smart-Users in Cultural Heritage Awareness

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ABSTRACT

Heritage accessibility has been highlighted as a fundamental condition to convey multi-sphere values (social, artistic, economic, territorial), necessary for assigning the label of cultural heritage. Similarly, it permits to include new frontiers of educational processes for smart communities within digital data and VR systems developed from 3D survey actions. In this way, digital technologies can convey the societal challenge to evaluate the efficacy of cultural heritage communication beyond the in-situ physical experience, assessing the learning impact of virtual heritage environments. The scientific research on the production of effective heritage learning objects, from the EU project PROMETHEUS, is presented, enhancing opportunities of communication and virtual smart-fruition for sites along cultural heritage routes. Sites' virtual models are joined to physical prototypes to increase awareness and sustainable knowledge from the users' interactions with digital heritage.

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INTRODUCTION

Accessibility has insistently emerged as one of the fundamental conditions to convey societal values and assign the nature of Cultural Heritage to communities' users (Welch, 2014; Chong et al., 2021).

The possibility of accessing a direct experience of Cultural Heritage has always been a function of factors surrounding the social and socio-geographical situation affecting the specific heritage site. Many influencing conditions can be considered: from environmental climatic conditions, which can limit the visit to short or seasonal periods (as for sites in the Nordic regions, Finland, Russia, or the tropics similarly), to political conditions of territorial interest (common in areas of the Middle East and, recently, in the geographically European territories of Ukraine). Regarding ordinary conditions, also gender, religious and safety conservation limits can be assumed.

Considering the worldwide experience of the COVID pandemic, the assurance of heritage accessibility has emerged as one of the main conditions of deprivation caused by the need for social distancing (Ginzarly, Jordan Srour, 2022). The reference is not only for museum spaces (Miłosz et al., 2022), classified as delimited premises with a strict requirement for crowd control but also for outdoor sites, such as monumental areas and parks, where the need for access regulation has emerged more clearly due to health risks.

Concerning the significant reduction in accessibility and visit opportunities suffered by many sites, it has been emphasised how Cultural Heritage acts as a fundamental resource both for territorial valorisation and societal education. Its intellectual enjoyment is strictly connected to the sustainable assets developed by a community. This issue does not only concern the touristic-economic framework, which is often of fundamental sustenance for many regional realities, but it also concerns a broader panorama regarding the impact of the education of tangible culture on the development of local communities, on behaviours of societal users, and the recognition and characterisation of society concerning the identity of its territory.

The relevance of the accessibility of Cultural Heritage by international citizens and visitors does not only concern symbolic heritage and monumental sites of higher visibility, often supported by a higher global awareness due to international awards (e.g. UNESCO sites). It permeably characterises the entire ecosystem of sites spread over the territory, which are often linked together in networks of relationships and mutual historical influence. Their cultural relevance needs to be traced and enhanced as a character of resilience within the multiple actions that have undergone the transformation of territory and the local communities (Korro Bañuelos et al., 2021).

In particular, the “widespread architectural heritage” is a natural phenomenon that concerns networks of heritage sites linked by historical and cultural connections, which create a relationship between their tangible and intangible elements through more than physical and geographical existence. Widespread heritage concerns a system of relations and interconnections of communication models disseminated at the territorial level, where the recognition of a basin for its development is related to the modalities of cultural exchange and development of a common identity applied by communities, from the past until the present. It crosses physical and administrative boundaries that clarify the formal cultural value of the homogeneous heritage system (Oppio, Dell'Ovo, 2021).

This topic is more evident in the case of tangible heritage scales with characteristics of greater immovability, as in the case of Architectural Heritage, and of sites involved in territorial transformations that divide and fragment their original arrangement and foundation network (e.g., geo-political reorganisations, societal restraints, territorial infrastructural planning). In these cases, the various entities

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