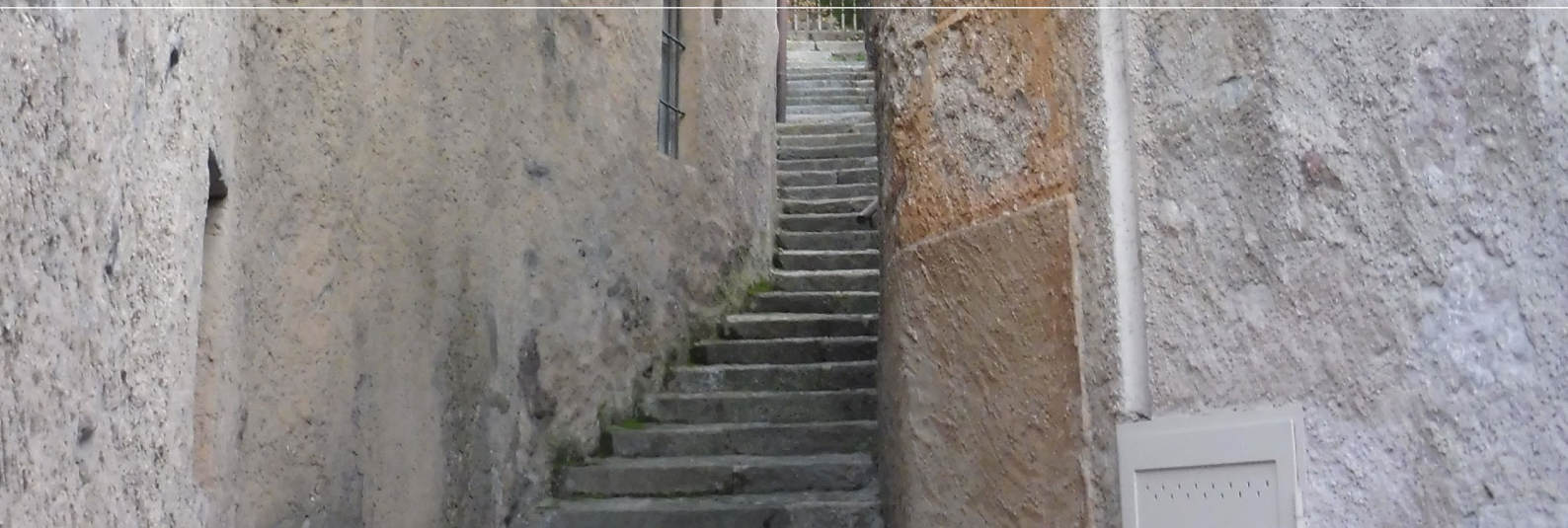




**CULTURAL HERITAGE AND SOCIETY – PRESERVATION  
AND IMPORTANCE OF CULTURAL HERITAGE**



# THE CHALLENGE OF PARTICIPATORY APPROACHES FOR THE DIGITALIZATION OF EUROPEAN CULTURAL HERITAGE

Fernando Ferri, Patrizia Grifoni, Noemi Biancone, Chiara Bicchielli

## INTRODUCTION

This paper discusses a new challenge in the sector of the heritage platforms: the emerging technology of Heritage Social Platforms. Following the success of Social Platforms in many sectors, these new heritage-based platforms implement a more participatory approach for stakeholders and citizens. After the presentation of some examples of relevant Heritage Social Platforms, the paper introduces the Innovators in Cultural Heritage platform recently implemented by CNR-IRPPS along with its functionalities and sustainability strategy.

## FROM HERITAGE DIGITAL PLATFORMS TOWARDS HERITAGE SOCIAL PLATFORMS

Heritage Digital Platforms use top-down approaches and require the support (and funds) of large organizations. Several Heritage Digital Platforms already exist (Europeana, Google Cultural Institute are two relevant and large examples). These platforms digitize and virtualize collections from museums, libraries and other institutions. Citizens are not involved in their creation and they do not have the objective to establish heritage communities around them.

Heritage Social Platforms, on the other hand, use bottom-up approaches and are based on the support of large communities. In several fields, social platforms have proven remarkably successful at building networks based on the contributions of their users. However, their possibilities have not been fully exploited in the sector of cultural heritage. Heritage

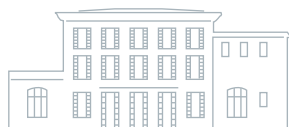
Social Platforms could become the place where citizens, heritage communities, and professionals will be able to contribute their voices, images, ideas, emotions, and experiences in digitizing, documenting, preserving and promoting heritage assets.

In particular, the added values of Heritage Social Platforms are:

- Establishing heritage communities to raise awareness on the importance of cultural heritage
- Increasing and facilitating the content production by involving civil society, local communities and private organizations that are interested in cultural heritage
- Bringing cultural heritage into the people's everyday life: digitization of tangible and intangible cultural information when it happens
- Making cultural heritage contents more accessible and dynamic
- Involving citizens and civil society in mechanisms integrated with public action for cultural heritage preservation

## HERITAGE SOCIAL PLATFORMS: APPROACHES AND EXAMPLES

Several Heritage Social Platforms have been launched in the last few years. The following three examples are good representatives of the opportunities created by Heritage Social Platforms in the cultural heritage sector. These platforms are: PLUGGY, NETCHER and REACH. PLUGGY provides innovative 3D models and audio, augmented reality, geolocation and collaborative games tools and apps to enable users to share their local knowledge and experiences. PLUGGY allows individuals to create virtual museums by grouping virtual exhibitions, which are





curated by users, thereby allowing citizens to participate in the preservation of heritage elements. Additionally, visiting virtual museums, and browsing digital collections is organized by other users. PLUGGY also allows users to create new stories and highlight the connections between any materials they deem fit for their virtual exhibition. Finally, it provides users experience stories in new and fascinating ways.

NETCHER's main foci are traceability, preservation and reconstruction of cultural goods as well as the cross-sectorial fight against trafficking and looting of cultural goods. NETCHER aims to set up a lively international and multidisciplinary network of practitioners with shared convictions, values and protocols, and enhance their active cooperation and experience. NETCHER has the ambition to raise the awareness of stakeholders and the general public about the consequences of illegal trafficking of cultural goods. As a running H2020 project, this platform also has the goal of becoming a landmark piece of technology for any actor who needs tools, data, and documents on the issues tackled by the project.

REACH is an online space, which is open to contributions from the community of heritage researchers, practitioners, professionals and citizens interested in promoting the value of cultural heritage and supporting its public recognition. The platform allows the exchange of expertise and experience between people and institutions, aiming to foster debate and reflection on the importance of cultural heritage and its impact. The main sections of the REACH platform are:

- **HERITAGE SERVICES:** providing access to a collection of databases created by heritage research projects.
- **POLICIES and RESEARCH:** offering a mapped list of links to research publications and policy documents about heritage research, including joint statements, position papers, calls for action, research deliverables, etc.

- **PROJECTS:** providing the links to the projects in the domain of heritage research, which are collaborating with open-heritage.eu.
- **BLOGS:** offering a collection of blogs on the theme of cultural heritage and participatory activity in culture.

### THE INNOVATORS IN CULTURAL HERITAGE COMMUNITY

The Innovators in Cultural Heritage platform was born as exploitation of the MARINA community (<https://www.marina-platform.eu>) and a joint effort of the European Commission together with two Horizon 2020 projects: MARINA and ROCK. The community platform is in continuous evolution and has two other twin platforms in the marine and bioeconomy sectors. These three platforms co-evolve together. The target that the platform wants to address is a complex combination of public administrators, associations, research, groups of interests, and enterprises, for federating them.

The Innovators in Cultural Heritage platform offers a set of functionalities that can be used by the cultural heritage stakeholders for a wide range of purposes. When exploited to its highest capabilities, the platform allows the stakeholders to: 1) Meet others with whom they share interests and build communities to strengthen their voice, 2) Disseminate or access knowledge that helps them solidify and enlarge their visions about their interests, 3) Be aware of or organize events dedicated to their matters of concern (see Figure 1), and 4) Inspire debates in order to learn from others.

The platform was developed so that each piece of content and the entire platform can be easily embedded in any external portal or website. This option may be particularly appealing for any group of stakeholders, organizations or communities looking for new ways to attract new audience or provide functionalities from their portal or website to the users. Among other examples, this could be the case for those interested in



developing strategic collaborations to promote a given cause, those seeking to set up a virtual working group or those concerned about improving the circulation of information and the networking within their networks. The platform can also be particularly useful during public consultations and early stages of the decision-making process. Governance-related stakeholders involved in such law-oriented procedures can therefore use the platform to build bridges connecting themselves to the scientific community, industry and society.

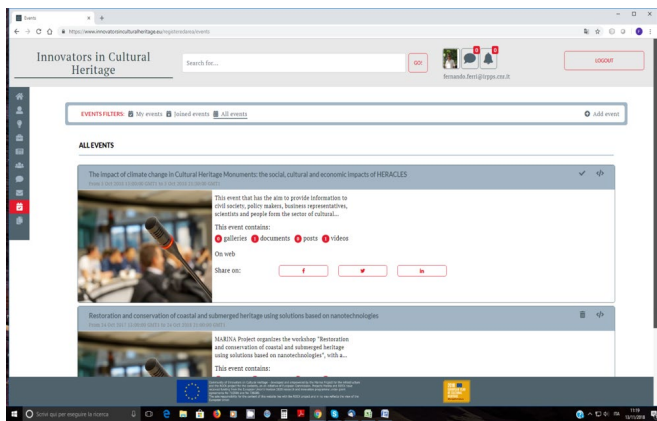


Figure 1: Page for accessing events reported in the platform, or organized on the platform as virtual  
<https://www.innovatorsinculturalheritage.eu/registeredarea/events>

Anyone producing data, information, knowledge, and technology (see Figure 2) can use the platform to promote the outcomes of their activity. The platform can facilitate new working procedures in which the dissemination of data sets, scientific papers, technical reports, etc., among a wide audience concerning the cultural heritage sector or a given geographical area is perceived by all as a day-to-day activity.

There are various online solutions for anyone interested in disseminating or having access to knowledge. Facebook and ResearchGate, for instance, are two very popular examples, both of which are quite efficient. However, within Facebook, a platform that is very popular to citizens, scientific information represents a very small part of the content of this generalist social network. Another shortcoming of Facebook is its tendency to be subject to a variety of fake news. On the contrary, ResearchGate is mostly used by researchers and the impact of posting a scientific paper, for example, is limited mostly to the science community. Citizens and other stakeholders groups are not able to use ResearchGate unless they release scientific publications. Innovators in Cultural Heritage are committed to encouraging both stakeholders and citizens to use the platform.

### INNOVATORS IN CULTURAL HERITAGE SUSTAINABILITY

The term sustainability has gained significant popularity in policy-oriented research, business development and social sector over the last few decades. Sustainability, a word frequently used across several disciplines, has become part of our everyday lexicon. Sustainability of a platform is about the continuation of its activities and sustainability of its outcomes and is particularly important for the users who spend their time producing content and activities on the platform.

Sustainability of Innovators in Cultural Heritage requires long term planning to facilitate diverse stakeholder engagement and improve the institutional capacity of one's target population. Two main components of sustainability have been considered:

Technical Sustainability - The Platform is a web application developed as a personalization of the PLAKSS framework (CNR patent IT2015000917) for managing the needs of the Cultural Heritage communities. PLAKSS is a very large software library developed in Java, Java script and JSP by



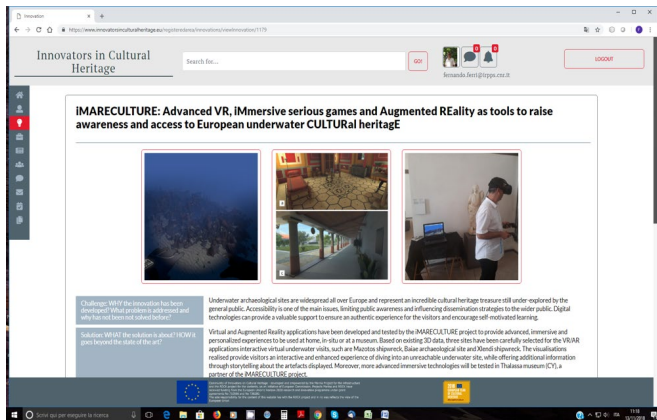


Figure 2: Page dedicated to the IMARECULTURE project innovative technology  
<https://www.innovatorsinculturalheritage.eu/registeredarea/labs>

CNR-IRPPS with own resources. The PLAKSS library includes interface modules (API) towards many software products and web services that allow for a composition of web services using the functionalities of the software interface. Software, web services and web applications are prone to security and technological issues that require continuous updating to avoid a rapid obsolescence. Taking into account security and technological risks the approach focuses on the migration to the new versions of the PLAKSS framework. The majority of other approaches could determine a rapid obsolescence of the platform and security issues. However, in general, the migration toward to new versions of PLAKSS requires minor effort.

Financial Sustainability – maintenance of the platform requires few financial resources for this reason any extra financial resource could be dedicated to further advance the work initiated with Innovators in Cultural Heritage including both new functionalities and content of the platform.

## CONCLUSION

This paper presented the Innovators in Cultural Heritage platform. In implementing the platform, CNR-IRPPS has considered the potentiality of this new approach in the sector of cultural heritage and sustainability issues for assuring a long continuation of its activities. The objective is now to attract financial resources for developing new functionalities having a particular relevance in the sector of cultural heritage.

