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Khalid S. Soliman

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The Territory Museums Role in the Promotion of Destinations with the support of ICT Platforms

Aida Carvalho, acarvalho@ipb.pt, Instituto Politécnico de Bragança, Campus de Santa Apolónia
5300-253 Bragança, Portugal; CITUR

Arlindo Santos, acsantos@ipb.pt, Instituto Politécnico de Bragança, Campus de Santa Apolónia,
5300-253 Bragança, Portugal; ALGORITMI

Carlos R. Cunha, crc@ipb.pt, UNIAG; Instituto Politécnico de Bragança, Campus de Santa
Apolónia, 5300-253 Bragança, Portugal

Abstract

The territories promotion is an ongoing challenge for multiple knowledge disciplines. Tourism-related products have been the most suitable ambassador of territories and still have an untapped potential. In scenarios where destinations have territory museums – closed but also open air museums – exists an enormous opportunity to promote the territory through them. But, for accomplish this, ICT have a natural collaborative role, supporting the information and services needs of tourists/visitors either to make their experiences more immersive or/and to allow the visiting to know more about the surrounding environment – the territory. This paper, presenting a model, start to discusses the potential of territory museums as destinations promoters and the role of ICT to provide suitable models that allow in-situ immersive experiences and a full integration with the territories information and services. This approach, merging the physical and the virtual, allow the territories promotion and an integrated approach capable to meet the requirements of visitors that are growing entities for knowledge about the territories that they visit and that they desire to explore.

Keywords: Tourism, Promotion, Museums, Territory, ICT, Heritage

Introduction

The “museum” term derived from the Latin word “museum”, which comes from the Greek word “mouseion” and means “house of the muses”. According to Guillaume Budé, in his *Lexicon-Greco-Latino* (1554) “it was a place dedicated to the Muses and to the study that was occupied by each of the noble disciplines” (Fernández, 1995: 27). Over time, the term has undergone changes according to the political, social and economic contexts. At the time of the Renaissance, the great collections, gathered from past centuries, were accumulated by similarities, genres and typologies, giving rise to the Cabinets of Curiosities or Chambers of Wonders, existing only the object and the collection. In the 19th century, some private collections have become public, giving rise to the most visited museums in the world, e.g., Prado Museum (Spain), in 2018, had 2.892.937 visitors (Museum of Prado, 2019).

In Portugal, the Royal Legislation determined the creation, in the district capitals, of “a Public Library, a Cabinet of rarities, of any kind, and another of painting” (Circular Régia, 1836). Later, Decree No. 1 of May 26, 1911 decreed the safeguarding, valuation and dissemination of cultural heritage, emphasizing the importance of regional museums as structures of a highly pedagogical nature, aimed at the regional education of the people. Its articles determined the division of the national territory into three artistic districts, with headquarters in Lisbon, Coimbra and Porto, each of which functions as a Council of Art and Archaeology, with functions of coordination and inspection in the museums created, or to create, in the different geographical spaces considered. In that sequence, thirteen museums of regional characteristics were created between 1912 and 1924, in several localities of the country very dedicated to the internal public, since the tourist activity was not properly explored. After the war, international institutions and organizations such as the United Nations Educational, Scientific and Cultural Organization, the International Council of Museums and the International Council on Monuments and Sites produced a set of documents on museology and

heritage that influenced practice current museology. Portuguese museum life continued to evolve and be part of official discourses and, in the early 1980s, “benefited from innovative changes, which translated into new museological practices, the widening of the concept of museum heritage, creation of new museums” (Nabais 1993, 66). The new practices introduced a new dynamic to Portuguese museology, creating structures representative of a given community space, expressing “through its collections and actions, the picture of the historical, cultural and social development of the region and encouraging the populations the image of legacy culture” (Leite, 1982: 85). It was perhaps the genesis of territorial museums and of a new strategic dimension of these spaces as promoters of activities with great potential for tourist attraction. new audiences / tourists are emerging. The culture-tourism binomial is increasingly established, with increasing difficulty in separating tourism from other social and cultural practices. The new practices introduced a new dynamic to Portuguese museology, creating structures representative of a given community space, expressing “through its collections and actions, the picture of the historical, cultural and social development of the region and encouraging the populations the image of legacy culture” (Leite, 1982: 85). It was perhaps the genesis of territorial museums and of a new strategic dimension of these spaces as promoters of activities with great potential for tourist attraction. new audiences / tourists are emerging. The culture-tourism binomial is increasingly established, with increasing difficulty in separating tourism from other social and cultural practices.

With the new paradigms of museology, the museums adopted strategies capable of promoting for the tourist/public, affirming themselves as equipment available to the information and leisure society, giving priority to ICT. According to Weiser (1991), we live in a world where physical and computational devices are an integral and invisible part of the physical environment, be it public, private or private / public. This environment, which according to (Roman et al., 2002) should become a common place where people normally interact to access information and benefit from the resources that are present. These same resources must be able to provide services and generate contextual information, quite different from traditional applications (Castelli, Mamei, & Zambonelli, 2011). Although new technologies and new scenarios are presented, both in academia and in the commercial environment, the main objective, according to Cano (2010), is not necessarily to develop new technologies, but rather to find ways to integrate technologies and plan for adequate integration.

The Contribution of Museums to the Promotion of the Territory

For the purposes of statistical definition, the “territory museum” is a museum whose collections are representative of a specific territory, more or less vast, and whose connection to the same territory is concretized through a set of actions in articulation with the community and other local institutions (INE, 2001). These are polyvalent and polynuclear museological spaces, aimed at gathering, preserving, identifying and disseminating the dispersed cultural heritage of a given territory. These new spaces develop a museum of community and / or proximity, that is, they take on a museum process in active collaboration with local, regional and international institutions, abandoning the idea of collectors of historical artefacts. They have become spaces that serve the citizens, also serving as tourist attractions for the tourist offer, stimulating the tourist to visit and to travel by a greater geographical area. They are ambassadors of the territory. The museum has evolved and changed, surpassing its traditional functions (collection, conservation, study and dissemination of regional heritage). In the new trend, museums have found strategies to respond to societal needs and changes. Thus, living museums “replace” “dead museums”; closed museums replace outdoor and territory museums. The museums have become more social and commercial, they integrate other support services e.g. shops and restaurants; have open days; rent collections and organize events, thanks to the search of new visitors / tourists. Museums have started to have websites with recommendations, harmonizing with the “Internet as the most effective means of communication that exists for the exchange of tourist information worldwide. The network can, to a certain extent, facilitate the promotion and distribution of tourism products and potentially enable tourist destinations and businesses to compete at the same level” (Marujo, 2008: 30). In the north of Portugal, in 1997, Law n.º 125/97 created the Douro Museum, a museum of the territory that represents the natural and cultural heritage of the demarcated region of the Douro, the first a demarcated and regulated region of the world, in the year 1756, by Marques de Pombal, which extends along the Douro River and its

tributaries to an area of about 250.000 hectares, between Barqueiros and Barca d'Alva. The museum has a “polynuclear structure distributed throughout the Douro region, having its headquarters in Peso da Régua” (art nº 2), “Casa da Companhia”, a building of the former “Companhia Geral da Agricultura das Vinhas do Alto Douro”, an emblematic building of the region. In the Museum's collections the tourist will find all kinds of cultural or natural values linked to the production, history and commerce of wines from the Douro region, namely the Douro wine (port wine), serving as a gateway for those who want to visit throughout the wine-growing region. The region has special characteristics that give it a sufficiently strong regional identity to be recognized as such; the collections of the museum show the cultural region reflected in the geographic space of the natural region, perfectly delimited, which encourages the realization of the visit and of the discovery per recommendations of the museum. The museum communicates the region giving the tools for the visitors to create their tourist guide, tracing their points of interest. The museum serves as an element of mobilization of tourists, mainly through its main temporary exhibitions, videos etc. The “revenues of the box office performed well in 2017, reaching €134.862, an increase of 12.9% compared to 2016. Comparatively to 2013 reports, revenue more than doubled” (Douro Annual Museum, 2017: 67). These data are also very indicative of the new demand, meeting the premises of the World Tourism Organization (WTO) which predicts that the growth of tourism industry revenues in the coming decades will come from other forms of travel, not involving sun and beach (and points out that “alternative tourism” accounts for more than 20% of all trips over the next 20 years). These trends are reflected in the results of the EuroBarometer on Europeans' holidays (2011-2013 years).

The ICT Role in Support Museums Visit Experience and Connection to the Territory

The growing recognition of the role of ICT in the promotion and dissemination of information and services is crucial. According to Kindberg and Fox (2002), the natural and intensive collaboration between computational elements and components of the physical world denotes an intelligent space. This is a requirement that is not considered when developing traditional applications, where the execution context is limited and known a priori. But in intelligent environments, physical integration is a common feature in all approaches, and where entity availability is highly dynamic, and its characteristics are usually not known a priori. These environments provide an attractive insight into accessing information from any device, anytime, anywhere. However, there is an obstacle to the development of applications: environment in constant change, and applications must adapt to the execution context while maintaining functionalities when the user moves between spaces or uses different devices (Grimm, 2004).

When we approach a tourist context, the assumptions are the same. We continue with an intelligent environment with tourist-oriented objectives, where the purpose of all the actors in this ecosystem, which is called smart tourism, is to add high value and richness to the experiences (Buhalis & Amaranggana, 2013), personalization, context, and a real-time evaluation (Buhalis & Amaranggana, 2015). And in the last two decades, and with the transition from Web 1.0 to Web 2.0, new technologies, new content have promoted smarter tourism, and the mere discussion of the term e-tourism is too reductive to consider including new variables, including connection between physical objects. Thus, the integration of infrastructure with physical infrastructure is the definition of intelligent tourism (Gretzel, Reino, Kopera, & Koo, 2015).

We find in the literature several works with the focus on offering the tourist an intelligent environment, be it indoor, outdoor or indoor / outdoor. The authors of Kuflik et al. (2011) and Marty (2008) argue that technology can play a crucial role in supporting tourists and improving their experiences. SmartMuseum (Kuusik, Roche, & Weis, 2009) focuses on the museum environment to enhance cultural experiences. An example in which visitors can collect information about what the museum displays, and customize their visit based on specific interests. This system, which integrates the PDAs and RFID technology. Alletto et al. (2016) report that these types of papers present issues that are the subject of discussion because users focus on technology rather than the object / visiting space. Mighali et al. (2015) propose a system capable of providing visitors, equipped with a smartphone and a wearable device, a cultural experience, and where the wearable device identifies

the work in front of the user and its location to later send that data to a service central, and so new content is displayed on the visitor's smartphone.

Concerning outdoor cultural spaces, several projects have been proposed and project GUIDE (Cheverst, Davies, Mitchell, Friday, & Efstratiou, 2000) appears as the first one. This system used a Tablet PC to provide information on points of interest in the city of Lancaster, UK using Wi-Fi technology to detect the location. MAGA (Augello et al., 2007) is a virtual guide that helps visitors exploring voice recognition and location detection. DALICA (Costantini, Mustard, Tocchio, & Tsintza, 2008) is a system based on intelligent agents for cultural heritage scenarios that is able to send information about points of interest close to some sensors that were fixed. The CRUMPET project (Schmidt-Belz, Zipf, Laamanen, & Poslad, 2003) used PDAs to provide dynamic and interactive information such as maps showing the current position (with GPS information), recommendations, attractions information and visiting tips.

The system of Hamed et al. (2018) offers a set of functional requirements proposed by experts: providing information on exhibitions according to the needs of the visitor; planning and orientation of visit; continuous and historical information of the visitor's location; complementary information such as restaurants, tourist points of interest, etc. And among other requirements, the question of location is discussed, and with the popularity of smartphones equipped with different sensors such as GPS, this device has become a platform to offer your tourist attractions to museums. We found several technologies used to determine the location of the visitor, but given the fact that GPS (Meehan, Lunney, Curran, & McCaughey, 2012) is used outdoors, this technology fails in indoor environments such as museums and spaces (Bruns, Brombach, Zeidler, & Bimber, 2007), NFC (Ceipidor et al., 2013) and the use of RFID tags (Bay, Fasel, & Van Gool, Wi-Fi (Cheverst et al., 2000), and so on.

According to Chianese et al. (2015) the diversity of these works and their approaches reflects that they are nothing more than isolated exercises for the application of concepts and the absence of approaches that discuss issues such as reuse, applicability, maintenance, among other aspects of application development. Finally, we usually find work that addresses different approaches, approaches that focus on the user, approaches that focus on technology. But for a real application, an approach from the point of view of the promoter of cultural events seem yet insignificant. Solutions that take advantage of environments filled with technology, users who "carry" technology, content spread by different sources, communication that allows greater bandwidth, etc., not yet visible to be able to enjoy the advantages that the moment provides us.

As far as museums are concerned, technology can play a major role. Not only making the visitor experience a truly immersive experience, but equally, taking advantage of the museum as a point of entry for a territory, can inform the visitor about the whole potential of the surrounding territory - points of interest, tourist activities, commercial or cultural presented to the visitor so that the latter can enjoy it throughout the territory.

The model design that can integrate and interact information systems that provide territorial information as a whole thus appears a perspective that in our opinion should be the basis of the definition of conceptual models to support the visitor and promote the territories; with special emphasis on territories with territory museums.

Proposed Conceptual Model

After the discussion of the role of territory museums as territories promoters and the role of modern ICT approaches for enable more rich experiences and tourist information and services demand, is presented in Fig. 1 a conceptual model that we intend to make territory museums an open door to the territorial promotion and to answer the expectations of visitants in what concerns of accessing to information and services either to support their travel needs (e.g. hotels, restaurants) either to provide knowledge about the richness of the territories heritage.

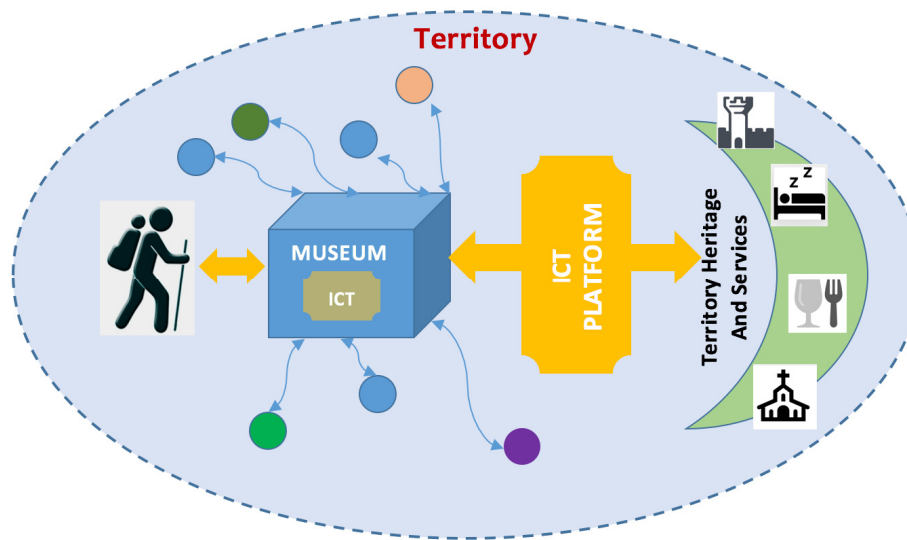


Fig. 1: Proposed Conceptual Model

The proposed model shows that territory museums, rather than traditional standalone ones, can be extended across the territory. Also, can combine a fix physical space – an interpretative space – and an across territory heritage that exists in an open air space extend along several miles (e.g. Portuguese Museum of Douro). ICT role must help the visitant to have more immersive experiences and to enable a suitable interpretation of heritage, either enabling the vision of old reconstructed spaces (spaces that no longer exist) either supporting open air distributed systems capable of providing information to visitants using modern ICT approaches as virtual reality, augmented reality, contextualized information. But still would exist and vacuum if live museums only support information and services about their own heritage. Being, many times, the territory museums, that reason why tourists decide to visit a certain territory, it must exist an integration with the information and the services of all territory important players. To experience the all territory potential, the visiting/tourist must be informed about the territory, must be able to know about the existing heritage and support services. Live museums should be, specially when they are territorial doors, head systems capable to satisfy the visiting needs for experience correctly the territories. This made interchange of information needed, and means that the ICT platforms must cooperate among them. Museums can be a high potential information and services distribution channel that will allow a most suitable territory discover by visitants. In what concerns to the visitant expectations, our model approach, enable that the start point of a territory visit can be a very qualified source of information about the territory, arousing the interest of the visitant to explore and experience the territory.

Conclusion and Final Remarks

The continuous perception of time and heritage, as well as the acceleration and availability of information, contributed to the emergence of an awareness of the value of heritage and the emergence of new forms of communication very involved with tourism and the promotion of the territory. Being territory museums, many times, the spark mechanism to start a visit to a certain destination, it urges to design effective model that allow that this type of infrastructures can be open door to destinations promotion in an integrated perspective combining, in desirable cooperation, the main territories players. To allow such important desiderate, the role of ICT appears as a vital one. ICT modern approaches, combining Internet of Things with innovative powerful virtualization technologies allow not only new immersive experiences in the heritage fruition, but are an important enabler of both heritage and business tourism services that are mandatory needs for all the tourists that visit a territory that are, growing actors starving for information and services that they expect to be integrated, easy-accessible, contextualized and ubiquitous.

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