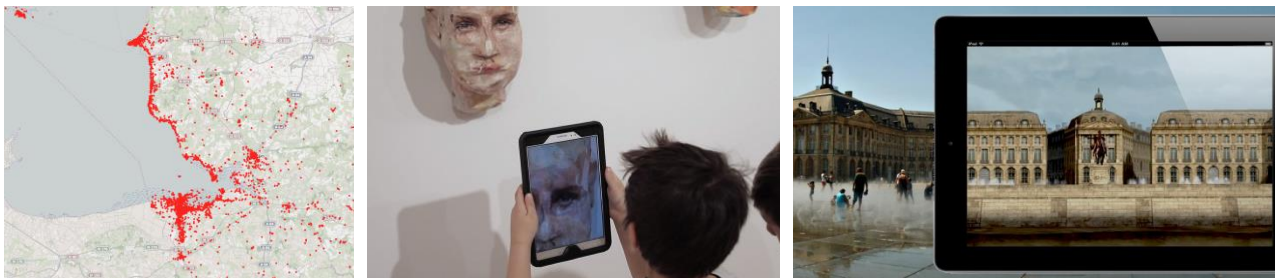


# TOURISM OBSERVATION AND SMART TOURISM

## How big data can help monitoring and enhancing Heritage Sites

IN THE FRAMEWORK OF THE OURWORLDHERITAGE INITIATIVE  
<https://www.ourworldheritage.org>

Monday, February 22, 2021, 2:00 - 4:00 (CET) on ZOOM



This webinar is devoted to the issues of observing and developing sustainable tourism in the heritage site, using digital data produced by tourism activity or by visitors themselves on social networks. The challenge is to build a smart destination, for the benefit of the preservation and enhancement of the cultural sites. This involves the observation and knowledge of the mobility of visitors, their tourist experience and their interpretations of heritage, both from a qualitative and quantitative point of view, by collecting data in situ (wifi, sensors) and online (webscraping, etc.), to inform decision-making concerning tourism, but also to promote practices and policies that integrate these data.

### Introductions

**Maria Gravari-Barbas**, Paris 1 Panthéon-Sorbonne University

### Moderator

**Lorenzo Cantoni**, Università della Svizzera italiana, Switzerland (USI)

### Participants

**Lorenzo CANTONI** (Università della Svizzera italiana, Switzerland), **Gael CHAREYRON** (ESILV, France), **Carmelo IGNACCOLO** (Massachusetts Institute of Technology, USA), **Sébastien JACQUOT** (U. Paris 1 Pantheon Sorbonne, France), **Sairi PIÑEROS** (Universidad Externado de Colombia)

### Rapporteur:

**Christina CAMERON**, University of Montreal, former President of the World Heritage Committee

Informations : Sébastien Jacquot ([sebastien.jacquot@univ-paris1.fr](mailto:sebastien.jacquot@univ-paris1.fr))  
<https://www.facebook.com/OurWorldHeritageTourism>

Registrations: [https://www.ourworldheritage.org/t\\_events/](https://www.ourworldheritage.org/t_events/)

## PROGRAMME

Some **200 draft recommendations** for **various target groups** (national and local governments; UN organisations/agencies, World Heritage Committee, UNESCO, Advisory Bodies (ICOMOS, IUCN & ICCROM), NGOs, local inhabitant associations, universities/research institutes, tourism industry etc.), have been gathered from around the world through the UNESCO-UNITWIN Network on Culture, Tourism and Development, which called for policy recommendations on how tourism and heritage conservation can contribute to the 2030 Sustainable Development Goals.

The 3-part event organized on February 1<sup>st</sup>, 8<sup>th</sup> and 15<sup>th</sup>, aims at discussing a series of recommendations that have been suggested by different academics and stakeholders on new approaches concerning tourism to WH sites to benchmark better standards for other heritage sites.

This webinar makes more particularly reference to several recommendations:

[11. SPATIAL PLANNING AND DESIGN GUIDELINES \(SDG#11\)](#)

[13. TOURISM AND QUALITY EDUCATION \(SDG # 4\)](#)

[21. TECHNOLOGIES FOR SPATIAL MONITORING OF TOURISM](#)

## PROGRAMME

**Maria Gravari-Barbas : Introduction**

**Carmelo Ignaccolo: Big data and data visualization techniques for tourism monitoring in Venice.**

*Recent advances in computation and big data techniques have enabled major breakthroughs that have changed the way many of us live, navigate, and experience the built environment of our cities. This is particularly true in major tourist destinations, such as the city of Venice, where the rise of the sharing economy in the tourism sector has impacted both the retail system and the housing stock. By leveraging data collected from TripAdvisor, AirDNA and Google, the research project "Unmasking tourism in Venice" narrates the spatial implications of overtourism in Venice's historic center at a granular level. The scope of this project is twofold: it generates a "Tourism Index" to map clusters of tourism-related activities and it demonstrates how specific urban form conditions are more prone to overtourism.*

**Gael Chareyron – Sébastien Jacquot : Digital data for knowledge of tourism in cultural sites**

*Tourist observation now integrates data from social networks and digital practices, for the purpose of understanding the profiles, mobility and experiences of visitors. The challenge is to understand the place of cultural sites within tourist destinations, through the relationships with other sites, and the way in which visitor practices build tourist and heritage complexes, on variable scales. We also question the integration of these data in site management.*

**Sébastien Jacquot – Gael Chareyron : Interpretation from below? Analysing online tourist comments to identify the image and interpretations of heritage.**

*Platform capitalism is also an economy of recommendation. Tourists become prescribers through their comments, generating visibility for heritage sites. In the past, an agreement between the World Heritage Centre and TripAdvisor aimed to use these recommendations for heritage monitoring purposes. This idea can be pursued, by asking whether the analysis of the comments can be a way to identify the relationship of tourists to heritage, through the way they reconstitute their experiences and thus enrich the site's interpretations, from below, bringing out new values or ways of characterizing a tourist destination. Thus, the analysis of these micro narratives on the heritage left by visitors and inhabitants may reveal a plurality of interpretations.*

**Sairi Piñeros: Tourism practices and big data in World Heritage Sites**

*In World Heritage sites, the statistics to studying tourism are typically the following: international arrivals, domestic mobility, occupancy in the accommodation sector, surveys on tourist attractions entrances (museums, parks) or random questionnaires about a specific topic. This data is often a little part of tourism activity and cannot show tourists' practices, in this case, in word heritage sites. Nowadays, the new technologies, Internet and mobile communications allow tourists to share their experiences easy and fast. Tourists broadcast their pictures, videos, stories and anecdotes through websites such as sites to sharing pictures (Instagram), blogs, forums, travelers' communities (TripAdvisor) and social networks (Facebook, Twitter and so on). This presentation explains how digital footprints, left by tourists on Internet, may provide valuable information to analyze tourism practices in word heritage sites.*

### **Lorenzo Cantoni: eLearning and MOOCs for tourism. Before and beyond the pandemic.**

*Digital transformation of tourism has very direct connections with the educational field, in particular when it comes to the training of tourism professionals, with the goal of ensuring SDG4 – Quality Education. In particular, tourism professionals should be equipped with relevant and updated knowledge and skills about eTourism, so to operate in effective and efficient ways and to make the best of (big) data, becoming able to collect and analyse them, as well as to take wise managerial and strategic decisions. Moreover, digital technologies should be considered not only topics to be studied, but also tools that help promoting learning experiences. Because of the pandemic, the need for professionals to learn at a distance in very flexible ways has become cristal clear.*

## **PANELISTS**

**Lorenzo Cantoni** is professor at USI – Università della Svizzera italiana (Lugano, Switzerland), Faculty of Communication, Culture and Society, where he is director of the Institute of Digital Technologies for Communication.

He is chair-holder of the UNESCO chair in ICT to develop and promote sustainable tourism in World Heritage Sites, established at USI in 2013; in the years 2014-17 he has been President of IFITT – International Federation for IT in Travel and Tourism.

He is USI's Pro-rector for Education and Students' experience, vice-director of the Master in International Tourism and director of the Master in Digital Fashion Communication, done in collaboration with the Université Paris 1 Panthéon-Sorbonne.

**Gaël Chareyron** defended his Ph D. degree in computer science and image processing at the University Jean Monnet (Saint-Etienne, France) in 2005. He is Dean of Computer Science and head of Master in Data & Artificial Intelligence at ESILV, Paris and member of De Vinci Research Center (DVRC) in digital group. Since 2010 he is associate researcher at EIREST, Paris Panthéon-Sorbonne. His research topics include multimedia and security, computer vision, Big Data & data mining, social media & tourism.

**Carmelo Ignaccolo** is a Ph.D. Candidate in City Design and Development at the Massachusetts Institute of Technology (DUSP) and an Adj. Faculty of Digital Techniques for Urban Design at Columbia University GSAPP. His academic work employs urban analytics and mapping techniques to analyze the urban morphology of historic cities and to investigate how the built environment affects human cognition and behavior. Prior to MIT, Carmelo worked as an Urban Planner at the Urban Planning and Design Lab of the United Nations Habitat Programme in Nairobi and as an Urban Designer at AECOM in New York City. Carmelo's work has been exhibited in several international venues, such as the Seoul Architecture Biennale (2019) and at the Bi-City Shenzhen Biennale of UrbanismArchitecture (2020).

**Sébastien Jacquot** is a lecturer (Maître de conférences) in geography at University Paris 1 Panthéon Sorbonne (IREST). He is Director of IREST (Institut de Recherches et d'Etudes Supérieures en Tourisme). He is a member of the EA EIREST interdisciplinary research team in tourism, and an associate member of the UMR PRODIG. He is co-responsible for the Heritage Working Group of the Labex Dynamite, member of the UNITWIN network attached to the UNESCO Chair Culture, Tourism, Development (U.

Paris 1 Panthéon Sorbonne). His research is in line with social and urban geography, and focuses on heritage policies, World Heritage and intangible heritage, tourism and digital social networks, tourism observation, metropolitan tourism, heritage from below. He has carried out surveys on remembrance tourism, wine tourism, links between informality and tourism.

**Sairi Tatiana Piñeros** holds a PhD in geography at the Panthéon-Sorbonne University. She started her studies in geography at the National University of Colombia. She has a Master in Geography of Emerging and Developing Countries (Paris 7 University) and Master in Tourism, Environment, Heritage (Paris 1 Panthéon-Sorbonne University). She is currently a research professor at the Externado de Colombia University. Since 2020, she has been an associate researcher at EIREST, Paris Panthéon-Sorbonne. Her research interests include tourism practices, geographical and tourism imaginaries, perception of space, urban changes, numerical traces, BigData Community-based tourism.

#### **Rapporteur**

**Christina Cameron** held the Canada Research Chair in Built Heritage at the University of Montreal from 2005 to 2019 where she directed a research program on heritage conservation. She previously served as a heritage executive with Parks Canada for more than thirty-five years. She has worked with the World Heritage Convention since 1987, chairing the Committee in 1990 and 2008 and co-authoring *Many Voices, One Vision: The Early Years of the World Heritage Convention* (2013).

#### **Introductions**

**Maria Gravari-Barbas** has a degree in Architecture and Urban Design (University of Athens, 1985) and a PhD in Geography and Planning (Paris IV – Sorbonne, 1991). She is the Director of the EIREST, a multidisciplinary research team dedicated to tourism studies, with main focus on cultural heritage, development, and urban-tourism evolutions. Since 2009 she is the director of the UNESCO Chair of Paris 1 Panthéon-Sorbonne University and the coordinator of the UNITWIN network 'Tourism, Culture, Development'. She is the author of several books and papers related to Tourism, Culture and Heritage. She currently is the Chair of the UNA Europa Alliance (<https://www.una-europa.eu/>) Steering Committee for Cultural heritage, and the convenor of the tourism theme of OurWorldHeritage initiative