ICTs in the tourism experience at religious heritage sites: a review of the literature and an investigation of pilgrims' experiences at the sanctuary of Loreto (Italy)

Silvia De Ascaniisa, Marc-Marie Mutangalab and Lorenzo Cantonic

aUniversità della Svizzera Italiana, Lugano, Switzerland; bPontificia Università della Santa Croce, Roma, Italy; cUniversità della Svizzera Italiana, Lugano, Switzerland

ABSTRACT
The offer of Information and Communication Technologies (ICTs) is, today, wide and varied, and they have reached a ubiquitous diffusion, with a deep impact on any kind of human activity. They are, though, neither goods in themselves nor undoubtably facilitators of experiences. This article investigates the border between ICTs as obstacles and ICTs as supports, taking into consideration the dialectic between religious experience and tourism experience, when it comes to visiting heritage sites of a religious nature. A first investigation of the role ICTs may have in a visit – or pilgrimage – to a Christian place of worship is presented: visitors to the Sanctuary of the Holy House of Loreto (Italy) were surveyed, with the aim of unveiling differences between a worship-oriented and a tourism-oriented use of ICTs. Findings show that the motivation driving the visit impacts the perception of ICTs and that the religious/spiritual experience needs to be kept personal.

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Introduction
Those who have participated in a religious ceremony have probably experienced the situation that while attending the service, in an atmosphere of prayer and concentration, suddenly a phone’s ring starts resonating. The scene usually goes on with the holder of the phone running out in panic or embarrassedly trying to switch the phone off, while the Minister and the other attendees get distracted and show annoyance. This is a situation when digital technologies are perceived more as obstacles than as supports.

On the other side, there might be mentioned many situations when digital technologies can be of great help for religious activities: from using the mobile to check on the internet for the hours of religious services, to following daily readings and prayers, reading official documents or watching the Pope’s discourses; from taking pictures of sacred buildings and works-of-art, to sharing personal faith-related experiences on social media.

CONTACT Silvia De Ascaniis silvia.de.ascaniis@usi.ch Università della Svizzera Italiana, via Buffi 13, Lugano 6901, Switzerland.

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Considering the extensive and ubiquitous use of Information and Communication Technologies (ICTs) in every life context and type of activity, the question about the border between ICTs as obstacles and ICTs as facilitators of experiences is becoming a sensitive and crucial one. This is particularly the case in the religious/spiritual dimension, where ICTs should work as external support for an inner experience.

There is plenty of literature investigating the relation between ICTs and religion, the first studies tracing back to the early 1980s, when the internet had just appeared on the stage and computer enthusiasts began to explore the ways to use this new means of communication to express their religious interest forming dedicated online groups (Campbell 2012). On the institutional side, religious organizations take advantage – in more or less organized and strategic ways – of the internet and the whole range of ICTs for communication activities as well as for pastoral care (for the use of ICTs by the Catholic Church (see: Arasa, Cantoni, and Ruiz 2010; Marchetti 2015; Cohen 2018). Social media and mobile applications continuously open up opportunities both for social and personal purposes related to the religious dimension.

Within the many and diverse uses of ICTs in the religious context, this article focuses on properties of religious nature, in particular on those sites that constitute notorious attractions for their aesthetic, historical and cultural characteristics, and aims at understanding if and how ICTs might support the religious/spiritual experience at those sites. In fact, ‘a visit to a religious site constitutes an intense, mostly informal, learning experience, both for believers, who can have a better and deeper understanding of their faith, as well as for visitors driven by different reasons than the religious one, who have the chance to encounter cultures, lifestyles, and human communities with their peculiar customs and story’ (De Ascaniis and Cantoni 2015, 2).

The aesthetic beauty and the cultural richness of a site might become a mediator of a spiritual experience, because it allows visitors to walk along a via pulchritudinis (way of beauty), which ‘beginning with the simple experience of the marvel-arousing meeting with beauty, can open the pathway for the search for God’ (Pontifical Council for Culture 2006). A site, then, has the capacity to move the interior and reveal the meaning, origin and end of our terrestrial journey.

Since ICTs have a deep connection with tourism, religion and learning, investigating ICT-related dynamics ‘is an opportunity not only to understand how digital technologies support, influence and mold religious, learning and tourism practices and experiences, but it might also cast light on social changes happening thanks to the Internet and its mobile 24/7 access’. (De Ascaniis and Cantoni 2015, 3).

This article presents a first investigation of the role ICTs might have in the visit – or pilgrimage – to a Christian place of worship: visitors to the Sanctuary of the Holy House of Loreto have been surveyed, studying their use of ICTs in the different phases of their visit.

The study was driven, thus, by the following research question: How are ICTs used and perceived during visit/pilgrimage experiences to heritage sites of religious nature?

Before presenting the results of the survey, the article elaborates on the controversy on ICTs as burden or support to the visit/tourism experience according to recent literature, and then presents a review of studies that investigated the use of ICTs to support tourism and religious experiences at religious and pilgrimage sites.
Background and context

ICTs as burden or support to the visit/tourism experience

During vacations and special events, technology increasingly plays a central role, no matter whether, it is seen as enhancing or distracting the experience; social conventions regarding technology are one of the most influencing factors in this direction. Intentions to use technology during vacations and special events depending on the type of vacation or event and can even be different for the same individual in different cases. In some situations, like family vacations, tourists might want to actively restrict their technology use (Kennedy-Eden, Gretzel, and Mistilis 2013).

Smartphones are probably playing the leading role in transforming the travel experience, both because they change the planning of travel activities before, during and after the trip, as well as because they impact travelers’ sense of tourism. Their influence is so deep that the travel experience needs to be ‘re-conceptualized’ within the context of mobile technology (Wang and Fesenmaier 2013). Smartphones are extending the consumption phase, almost eliminating or at least shortening the pre- and post-consumption stages, because they are mostly used as communication tools to connect with others about relevant or irrelevant issues to the trip and to stay updated about events in the workplace. They also represent entertaining devices always at hand, allow easily manage itineraries; check weather conditions, purchase tickets, search for information on place and ideas. Travelers may rely on one device for multiple uses, a situation which allows, on the one hand, more spontaneous activities and on-site decision-making, but on the other hand, may influence their activities and emotions because the doors for feedbacks from others never close (Wang and Fesenmaier 2013). There is, then, a spillover effect of using smartphones in daily life: travelers carry routines or habits to the context of travel, especially routines on how to spend downtime (watching movies, gaming), staying connected with work and intertwining leisure and working time, and since they may have a continuous interaction with their network, they continuously go in and out of the context of travel (Wang and Fesenmaier 2013). However, if the desire for virtual connectedness becomes obsessive, it may in fact isolate individuals from actual offline social interactions while also making difficult to rest, enjoy silence and reflection, which are necessary for healthy human development. In a word, it might become an obstacle to a real vacation experience.

These dynamics, then, might generate a sort of ‘always connected addiction’, where disconnection creates anxiety (Paris et al. 2015). ICTs limitations may lead to perceived missed opportunities like meeting people or visiting places and even to a high level of uncertainty, including the feeling of being in a crisis, feeling lost and scared, when technology is not available as a backup in situations of need (Neuhofer, Buhalis, and Ladkin 2015, 797).

ICTs in the tourism experience at religious and pilgrimage sites

A thorough search in the literature – in English language – has been conducted to retrieve scientific publications that address the issue of ICTs in the tourism experience at religious and pilgrimage sites of the Christian tradition. It appears that attention to the field is still scarce, considering that only a few studies are available, and
there is only a single systematic investigation attempt, which was published in 2016 on
the International Journal of Religious Tourism and Pilgrimage and was titled ‘Information and Communication Technologies in Religious Tourism and Pilgrimage’. The use of ICTs by visitors at religious and pilgrimage sites or at big religious events has been recently considered as a study of human mobility, and thus with a wider goal than the one pursued in this paper. The works of J. K. Onnela and T. Khanna (Barnett, Khanna, and Onnela 2016; Onnela and Khanna 2015) on population dynamics of the Kumbh Mela go in this direction. The Kumbh Mela is a religious Hindu festival that has been celebrated for centuries, and the 2013 edition was considered the largest gathering of people in human history; Onnela and Khanna used call detail records to investigate population dynamics during such mass event. The availability of tones of data (‘big data’) from cell-phone communication, indeed, makes it possible to investigate several issues related to human mobility. Another example is the recent work of Torrent-Moreno (2017) on urban mobility in Barcelona and specifically at the well-known religious attraction of the Sagrada Familia (Spain).

Table 1 provides an overview of the 13 available academic papers retrieved for this literature review, describing them in terms of: issue addressed, goal(s), method(s) used and main findings. Publications might be grouped into four categories, according to the type of ICT that was primarily considered: (a) three papers address the adoption and contribution of ICTs as a whole in the experience of religious travelers or pilgrims; (b) five papers investigate the use and features of mobile applications either for pilgrimage routes or for religious mass events; (c) four papers analyze online travel reviews (OTRs) to understand visitors’ experiences at religious sites; while (d) one paper tackles the issue of the online communication of a religious mass event.

In group (a) a quite peculiar paper needs to be mentioned, which is indeed a research manifesto drawing a map of the overlapping areas between eTourism, eReligion and eLearning. It was elaborated on the basis of the discussions undertaken during the expert workshop ‘Pilgrims in the digital age. Toward a map of the overlapping area among eTourism, eReligion, eLearning’ that was held in Lugano (Switzerland), on 18–19 September 2015, and was signed by all participants –13 invited experts in the related fields. The manifesto aims at identifying relevant research and development directions in the concerned area. This article is also a response to some of the research actions envisaged in there, in particular, the need to organize existing resources and knowledge by ‘(i) documenting research methods; (ii) collecting, categorizing and comparing case studies; (iii) compiling a list of researchers working on different issues’ (De Ascaniis and Cantoni 2015, 3). Hereafter, a presentation of the contribution of the academic literature, divided according to the four identified thematic groups.

a. The adoption and use of ICTs in the tourism experience at sites of religious heritage have been investigated through on-site surveys/interviews; this method, on the one side, allowed the gathering of fresh personal experiences, but on the other side, confined the studies to specific cases with peculiar characteristics, hence reducing the possibility to generalize such results (Ramos and Mafe-Garcia 2018). In addition, if the considered cases do not have (any longer) a mainly religious function, visitors who are driven by religious motivations might be scarce
| Main studied issue | Author(s), date, title, case studied | Goal(s) | Methodology | Main findings |
|--------------------|-------------------------------------|---------|-------------|--------------|
| Adoption and contribution of ICTs in the experience of religious travelers/ pilgrims | Katsoni (2014) | - Identifying typical patterns of information search behavior in travel decision by religious travelers | Self-administered questionnaire in Greek and English, distributed by hotel managers; sample divided between: group A (very likely or likely to be interested in visiting religious sites); group B (very unlikely or unlikely) | 775 valid responses: - identikit of religious travel: women above 45, graduates of lower than secondary school level, pensioners/house workers/craftsmen/unemployed, choose a package tour, travel with family, book through travel agent; - information search depends firstly on word-of-mouth, are less likely to use internet for vacation booking |
| | De Ascaniis and Cantoni (2015) | - Drawing a map of the overlapping areas between eTourism, eReligion, eLearning | Summary of discussions undertaken during an expert workshop held in Lugano (Switzerland), 18–19 September 2015, signed by all 14 participants | Two groups worked on two directions: 1) a social sciences approach: they were pointed out a) research, common trends, questions tackled; b) key methods, best or frequent practices and examples; c) future research directions; 2) an engineering approach: ideas were elaborated about ICT projects/products that might enhance or support visitor/pilgrim experiences, and could support further research in the concerned area |
| | Ramos and Mafé-Garcia 2018 | - Exploring the influence, use, perception and contribution of ICT in the experience of cultural and religious tourists, with attention to the influence of age and gender | On-site survey (convenience sample) to tourists who visited the Cathedral Museum in the old city center of Valencia (Spain). Questions about: travel mode, use of electronic devices before, during and after the trip, use of devices in museums | 154 interviews: - use of ICTs contributed to planning a more successful trip, allowed access to cultural information, mainly by complementing events and religious aspects of interest, contributed to increased knowledge about destination; - age and gender did not influence significantly; - religion and culture not among the main reasons for travel, but when the case, were considered highly valuable |
| Use and features of mobile applications either for pilgrimage routes or for religious mass events | R.C. Nickerson, Austreich, and England 2014 | - Understanding if: a) belief about characteristics of innovations is associated with adopter category; b) adoption of innovations is associated with beliefs about characteristics of innovations | Online survey distributed via email to members of the American Pilgrims on the Camino and linked onto the American Pilgrims Facebook group | 503 valid responses: a) positive assessment: innovators and early adopters perceive a relative advantage in using mobile technology, think they will be compatible with their walk, and will be easy to use. b) positive assessment is more complex to be verified and more variables might play a role |
| | Narbona and Arasa (2016) | - Analyzing communication needs of religious mass event | Analysis of structure, content and usage impact of “Alvaro del (continued)
| Main studied issue | Author(s), date, title, case studied | Goal(s) | Methodology | Main findings |
|--------------------|----------------------------------|---------|-------------|---------------|
| Usage of Apps and Instant Messaging in Religious Mass Events. | Case: beatification of the Catholic bishop Álvaro del Portillo in Madrid | - Understanding how mobile technology can help to improve visitors' experience and organizational management | Portillo’s mobile app - Analysis of subscriptions, messages and impact on website visits of the event Whatsapp instant messaging service | - faithful used the app and instant messaging to get news, enhance the spiritual event and get practical information, improving this way their tourism experience |
| Antunes and Amaro (2016a) Pilgrims’ acceptance of a mobile app for the Camino de Santiago. Case: Camino de Santiago | - Identifying factors affecting pilgrims’ intentions to use a pilgrimage app | Online survey sent via email to Via Lusitana (a Portuguese Association of the Camino) and linked onto the Camino Facebook groups and forums | 222 valid responses: - performance expectancy (= degree to which a technology will provide benefits) is the major driving force because allows to save time; - other drivers are: effort expectancy (= degree of effort associated with the use of the tech.), social influence (= degree to which people perceive that important others believe they should use the tech.), hedonic motivations (= pleasure derived from using a tech) |
| Antunes and Amaro (2016b) Intentions to use a pilgrimage app: which features really matter? Case: Camino de Santiago | - Examining which features pilgrims value the most in a pilgrimage app - Determining which features influence pilgrims’ intention to use such app | Online questionnaire (in Portuguese, English, Spanish, French, German) with a set of 24 items + a question regarding pilgrims’ intention to use an app (dependent variable) | 1140 valid responses: - 3 dimensions of features were identified: General Way Features - GWF (e.g. info about: stages of pilgrimage, degree of difficulty of stages, places nearby, hotels), Cultural Features – CF (points of interest, get photos, virtual tour, cultural guides) and Religious Features – RF (info about: religious places, religious services, pilgrim rituals). GWF is the most significant concerning adoption, RF is the least influent on intentions to use an app. |
| Nickerson and Eng (2017) Use of mobile technology and smartphone Apps on the Camino de Santiago: a comparison of American and European pilgrims. Case: Camino de Santiago | - Understanding: a) what pilgrims think of mobile technology on the Camino, which ones they use, what’s their impact on experience; b) which mobile apps pilgrims use and ideal characteristics of an app | Online surveys to American and European pilgrims sent via email to members of the American Pilgrims on the Camino and linked onto the American Pilgrims Facebook group | 467 responses from US citizens +185 from Europeans: - mobile technology not essential on the Camino; - pilgrims carried smartphones, which made it easier to keep in touch with friends and family, and did not detract from experience; - used email apps, no Camino-specific apps; - ideal features: accuracy of info, usability, list of hotels, route maps, off-line use, cultural info, town maps. |
| Main studied issue | Author(s), date, title, case studied | Goal(s) | Methodology | Main findings |
|--------------------|-------------------------------------|---------|-------------|---------------|
| Online travel reviews (OTR) in visitors' experience at religious sites | De Ascaniis and Cantoni (2014) Artistic and religious experiences in online travel reviews about Saint Paul outside the walls (Rome). Case: see title | - Investigating if OTR reveal visitors' artistic or religious experience<br>- Studying if artistic aspects of a religious attraction might be drivers for a religious experience | Three-steps analysis of a corpus of 388 OTR in English about Saint Paul Outside the Walls in Rome published on TripAdvisor, to investigate functional, content and semantic-linguistic aspects | - 3 types of OTR according to function: practical OTR, attraction outline OTR, first-person account OTR;<br>- 4 types of OTR according to content: artistic experience, religious experience, combination of artistic and religious exp., service at attraction;<br>- artistic features and atmosphere of the Basilica facilitated a spiritual exp., which was mostly unexpected and unsought but enriched the visit exp.;<br>- mostly domestic and proximity tourism;<br>- multiple motivations for visiting and not principally related to a religious quest;<br>- Sacred Mounts visited because of their combination of historical, artistic and scenic characteristics;<br>- needs of local management to consider OTRs to improve the offer |}
| Cerutti and Piva (2016) The role of tourists' feedback in the enhancement of religious tourism destinations. Case: Sacred Mount of Oropa and Sacred Mount of Orta (Piedmont Region, Italy) | | - Assessing tourists' perception of destinations<br>- Identifying areas for local management improvement | Qualitative content analysis of, respectively, 237 OTRs and 243 OTRs for the two destinations retrieved from tripadvisor.com<br>- Systematic coding process to identify and classify: visitors' geographical origin motivations, elements of experience assessment<br>- mostly domestic and proximity tourism;<br>- multiple motivations for visiting and not principally related to a religious quest;<br>- Sacred Mounts visited because of their combination of historical, artistic and scenic characteristics;<br>- needs of local management to consider OTRs to improve the offer | |
| Ndivo and Cantoni (2016) The efficacy of heritage interpretation at the Lalibela Rock-Hewn Churches in Ethiopia: exploring the need for integrating ICT-mediation. Case: Lalibela Rock-Hewn Churches in Ethiopia | | - Investigating the level of visitor satisfaction with heritage interpretation at the rock-hewn churches of Lalibela<br>- Interrogating the efficacy of guiding and presentation at the site with the aim of exploring the need for ICTs intermediation in heritage presentation | Qualitative content analysis of 191 OTRs retrieved from tripadvisor.com:<br>- Keywords identification, categorization into themes<br>- Answers to RQ based on example extracts | - common situation in heritage sites within less developing countries: lack of key relationship between bodies responsible for tourism and heritage brings to un-integrated heritage management;<br>- importance of human guides because personal, credible, flexible, and allows locals' involvement;<br>- professional and ethical malpractices, e.g. dishonesty, visitors' exploitation, communication challenges, visitors' harassment;<br>- need for ICTs solutions and heritage interpretation centers to widen access to info and convey magnificence of WHS, so to enhance visitors' experience;<br>- attractiveness of cultural attraction is mostly given to: atmosphere it creates, aesthetical aspects of both interior and exterior, the care put in its maintenance, connection it has with a culture and its past, which promotes a learning experience;<br>- specific arguments elicited by an attraction of the Christian religious heritage are: possibility to 'cultivate God', openness to anyone despite the creed, possibility to worship an Apostle of faith at | |
| De Ascaniis and Cantoni (2017) Online visit opinions about attractions of the religious heritage: an argumentative approach. Case: Basilica of Saint Paul Outside the Walls in Rome, Italy | | - Bringing the attention on tourism as a phenomenon, which discloses social and cultural dynamics of our time<br>- Investigating visitors' experience at a religious heritage site, unveiling the arguments that formed their opinion | Analysis of arguments given by visitors to recommend a visit to the Christian Basilica of St. Paul Outside the Walls in Rome, retrieved from TripAdvisor: 400 OTR in Italian and 400 OTR in English | - attractiveness of cultural attraction is mostly given to: atmosphere it creates, aesthetical aspects of both interior and exterior, the care put in its maintenance, connection it has with a culture and its past, which promotes a learning experience;<br>- specific arguments elicited by an attraction of the Christian religious heritage are: possibility to 'cultivate God', openness to anyone despite the creed, possibility to worship an Apostle of faith at |
| Main studied issue                          | Author(s), date, title, case studied                                      | Goal(s)                                                                 | Methodology                                                                 | Main findings                                                                 |
|--------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Online communication of religious events   | Cantoni, Stefania, and De Ascaniis (2012) Online communication of the Catholic World Youth Days Case: World Youth Day 2011 in Madrid, Spain | - Analyzing online communication activities of World Youth Day 2011 in Madrid for setting-up and increase its online presence and visibility | - Contents and functionalities analysis of the previous 3 WYDs websites       | - elaboration of a contents and functionalities map for website of religious mass events; - need to provide info and services for tourists as well as for pilgrims; - need for a stronger online marketing activity; - proposal of a methodology to design promotional campaigns |
|                                            |                                                                        |                                                                         | - Analysis of info-competitors websites                                    |                                                                              |
|                                            |                                                                        |                                                                         | - Analysis of search engine ranking of WYD 2011                             |                                                                              |
|                                            |                                                                        |                                                                         | - Backlink analysis and promotional campaign                                 |                                                                              |
(Ramos and Mafé-García 2018); also, if ‘religious tourists’ are identified on the basis of their likelihood to visit religious sites results might be misleading, since the intention behind the visit does not correspond to a visitor’s motivation for traveling (Katsoni 2014).

b. All studies on the use and features of mobile applications for pilgrimage routes considered the known Way (Camino) of Santiago de Compostela and used online surveys, except for one that took a religious mass event as a case. The studies on the Way of Santiago tried to point out the features that a mobile app should have to be adopted by pilgrims on the route; even if mobile technologies are not considered essential to enhance the Camino experience (Nickerson and Eng 2017), their use is dependent on the attitude of pilgrims toward technologies: in fact, innovators and early adopters perceive a relative advantage in using mobile technologies and believe they will be easy to use along the walk (Nickerson, Austreich, and Eng 2014). The studies converge in identifying general features of the way – i.e. accurate information about stages of pilgrimage, places nearby, list of hotels, route and town maps – as well as usability and performance as the most important features to adopt an app (Antunes and Amaro 2016a; Nickerson and Eng 2017). Religious features such as information about religious places, religious services and pilgrim rituals seem to be the least influential on intentions to use an app along the Camino (Antunes and Amaro 2016b). Apps, in fact, are expected to save time and facilitate organizational decisions rather than to support the spiritual experience. In the case of mass events, mobile technologies proved to give an unprecedented opportunity for direct and personal communication with attendees: the study by Narbona and Arasa (2016) showed that during an event that gathered about 250,000 people from more than 70 different countries, the faithful used a mobile app and an instant messaging service to get news and get practical information, improving this way their tourism experience of the hosting city.

c. Analyses of OTRs about sites of religious interest pursue both a descriptive goal of understanding visitors’ experience and their appreciation of the site, and a prescriptive goal of providing site managers with advice on how to improve services on the base of visitors’ recommendations. OTR’s analysis allows, in fact, for the emergence of those aspects or features of a destination/attraction that were appreciated the most (Cerutti and Piva 2016) and also to disclose professional and ethical malpractices like dishonesty, visitors’ exploitation or communication challenges (Ndivo and Cantoni 2016). Analyzing OTRs means, indeed, listening to the voice of visitors who speak of an experience which was, for better or worse, worth being communicated. The studies pointed out that, even if not driven by religious/worship reasons, visitors to religious heritage sites appreciated both historical and aesthetic aspects as well as the religion-related ones, sometimes also witnessing an unsought or unexpected spiritual experience while admiring heritage beauty (De Ascaniis and Cantoni 2014, 2017). In order to go beyond an assessment of the general sentiment toward a destination – i.e. if it was generally appreciated or not by tourists – all the studies undertook a qualitative content analysis, annotating and classifying visitors’ stories, their opinion on the site and the underlying reasons of such opinions, their understanding of the site’s meaning and significance, and their satisfaction with tourism services. OTRs constitute one
of the main sources of tourism information nowadays: they influence tourists’ decision-making and help to disclose social and cultural dynamics of our times, and thus represent a necessary tool for the supply side.

d. Religious events, as any other type of event, attract also people who are not primarily interested to participate in the event but are instead driven by curiosity. Such visitors, usually, take the opportunity to embark on other tourism activities. The communication of a major religious event, therefore, should provide information and services for tourists as well as for pilgrims. Cantoni, Stefania, and De Ascaniis (2012) analyzed the online communication activities of World Youth Day 2011 in Madrid, with the aim of elaborating a map of contents and functionalities for the website of religious mass events and of increasing its online presence and visibility. To take care for the online communication is, in fact, nowadays, a requirement and not just a ‘nice thing to have’, for an event to be successful.

This comparative overview of the literature allows for making suggestions for future investigation efforts. In order to understand whether using ICTs makes a difference in the visit experience at religious sites, and what role ICTs might have, cases with similar characteristics need to be compared. In fact, a visit to a Cathedral that preserves its original function rather than to a religious site that has turned into a cultural attraction, or a visit to a religious complex like a cloister rather than to a single religious building like a chapel, and finally, the religious creed to which the site is bound, are all variables that should be taken into account. When it comes to surveys directly addressed to visitors, then, in addition to site-related characteristics, also some respondents’ characteristics might be considered for selecting the sample, like the visit motivation; if a visitor has eminently a worshipping motivation instead of a tourism or a cultural goal might have a strong influence on his/her use of ICTs and the related expectations. In this article, the results of a survey will be presented, which was conceived to be the first one of a broader investigation on the use and role of ICTs at sanctuaries and pilgrimage sites of the Catholic faith, aiming also at unveiling the differences between a worship-oriented and a tourism-oriented use.

Experience of ICTs by pilgrims. The case of the Santa Casa di Loreto

In this section, the investigation focuses on the role ICTs might play in the visit experience to a place of religious heritage: actual uses and perception of ICTs are observed, by directly asking a sample of visitors. Since a sanctuary of the Catholic Church is taken as case study, it is necessary first to briefly present what a sanctuary is.

What is a sanctuary?

The word ‘sanctuary’ comes from the Latin word sanctuàrium, which is made up of the word ‘sanctus’ meaning holy, and the suffix – àrium, which was added to any place where certain objects were collected and saved. Ancient believers used the word sanctuary to refer to the exterior space – for example, a courtyard or a house – of a sacred ground. Its semantic scope included all places of cult: the temples, the churches, the consecrated places and the places of pilgrimage. It is in this
understanding that the word is used for the shrine of Delphi (Ancient Greece), as well as for the Basildas of Lourdes (France) or Loreto (Italy). In ancient times, though, ‘sanctuary’ denoted, properly, the most sacred area in a temple (Dubost et al. 1992). Temple, in its turn, comes from the Latin word *templum*, which referred to an area that was demarcated and traced with a stick by the augur, to indicate a restricted area for the auspices (Gaffiot 1934). Such demarcation is rooted in the corresponding ancient Greek term ‘τέμνω’, meaning to cut, to separate a space for the cult. In the restricted sense, ‘sanctuary’ applies to the part of the temple reserved uniquely for the priest and called the Holy of Holies, and to the part around the altar, in a Roman Catholic Church, where the consecrated hosts are reserved. Based on the legacy of the Patriarchs of the Bible, contemporary believers understand the evolution of the word and attribute it to any place of the manifestation of God, to the tent of meeting and the place that housed the Ark of the Covenant. With the coming of Christ, the understanding of sanctuary and temple is raised also to a supernatural and spiritual level, referring to all believers as temple of the Holy Spirit. In the Catholic doctrine, sanctuary is any holy place, which manifests the presence of God and where He is believed to have His dwelling place. It is a place where the divine manifestation is made also through the wonders performed by the Virgin Mary or a Saint recognized by the Church (Andreatta 1992). For this reason, the Catholic Church recognizes the sanctuary as a place of a supernatural presence that has a triple mission: to regenerate and strengthen the faith, to strengthen and encourage believers to practice charity, and finally to rediscover and consolidate hope (Andreatta 1992).

This value of the shrine is seen clearly in the Code of Canon Law, in the third part dedicated to sacred times and places (Codex Iuris Canonici 1983, #1230-1234). It states, ‘At shrines the means of salvation are to be more abundantly made available to the faithful: by sedulous proclamation of the word of God, by suitable encouragement of liturgical life, especially by the celebration of the Eucharist and penance, and by the fostering of approved forms of popular devotion’ (Codex Iuris Canonici 1983, #1234 §1).

Considering today the number of people, who engage in religious tourism in the various pilgrimages which lead to the discovery of sanctuaries, the Church re-embraces her pilgrim vocation. Pilgrimages allow for three types of experience: being on the way, celebrating the rituals of the place and leaving the place to return to daily life.

The Holy House of Loreto is now briefly presented, since it was the sanctuary studied in this article.

**The Holy House of Loreto**

The Holy House of Loreto is located in the city of the same name in the Marche region, in central Italy, 5 km from the Adriatic Sea. The Italian history of such place starts with the displacement of this House brought from the Holy Land during the Crusades by angelic hands, according to a popular tradition; another version of the story states that the house was moved by Crusaders themselves after the expulsion of the Christians from Palestine, on 10 December 1294 (Di Pea 2014). The House is constituted of three walls, which are built with bricks of Palestinian origin. The walls are believed to be those of the house
where the Virgin Mary was born, the home where she was educated and received the Annunciation of Jesus Christ’s birth by the Angel Gabriel.

From Palestine, this House arrived first at Tersatto in Croatia and then at the hill on which it is now situated, between the city of Recanati and the seaside. The account of the transition speaks of the way of the angels, who carried the House, as can be seen in the iconographic works of Loreto. Today, archaeological and historical researchers tend to trace the placement of the Holy House to the intervention of the Germans Crusaders belonging to the people of the Angel, or to the noble Angeli family, who reigned on the Epiro region at that time. Historians attribute the displacement to the movement of the people who left the Holy Land after Palestine fell into the hands of Moslems (Giulietti and Serenelli 2015). Still, several elements are to be studied, which challenge every proposed reconstruction.

The walls of the House of Loreto are painted with graffiti: on the north wall the graffiti are quite high, on the southern wall they are at an accessible height and are faded because of the contact of the pilgrims and on the West wall graffiti surround the so-called ‘window of the Angel’ (Santarelli 2010). Archeological studies of Jewish symbols in Palestine have shown several similarities between elements in the House of Loreto and elements in the site of Jesus Christ’s incarnation in Nazareth. There are symbols referring to Jesus Christ as Son of God, to the archangels Gabriel, Raphael and Michael, to redemption (symbols that join heaven and earth through the cross), to Christ as beginning (alpha) and end (omega) of the world. However, the interpretation of those signs is difficult, because many of them are isolated or unreadable, or even spoiled, maybe because of the reconstruction of the House after its translation.

The Holy House of Loreto commands an incredible fascination and an irresistible attraction for those who want to live an experience that combines devotion, faith and culture. Many architectural works and works of art of various origins were added to the House along the years, as a sign of devotion.

**Goals and structure of the survey**

Goal of the survey was to investigate if and how ICTs were used in pilgrims’ visit experience to the Sanctuary of Loreto, and in particular if and how they were integrated within their spiritual experience. The survey was first conducted in person on site, but due to the many difficulties encountered by the investigator to get the availability of visitors, it was later on distributed online following a snowball sampling, until a quota of 100 people was reached; only people who visited the Sanctuary at least once were included.

The survey covered four dimensions:

a. respondent’s demographic data – age, gender, nationality, place of residence;
b. travel experience – travel company, activities performed, other destinations visited, other sanctuaries visited (previously);
c. experience at the sanctuary – number of visits, reasons for (the last) visit, information sources, personal significance of the place;
d. use and role of ICTs – to prepare the visit, during the visit, for the religious experience, Internet connection, perception of ICTs.
Results

The sample was very well balanced both in terms of gender and age: there were 51 male and 49 female respondents, most of them (83%) between 18 and 60 years old, with an equal distribution among three age groups (18–30, 31–45, 46–60), as shown in Figure 1. Only eight people did not come from Italy: that was expected since Loreto mostly receives domestic visitors and because the online survey was only distributed in Italian language.

Respondents traveled with family (38%) or friends (19%), but a good number also went with an organized pilgrimage group (27%). Only seven visitors went to Loreto with an organized non-religious tour group (see Figure 2), which suggests that devotion was the main motivation for visit.

This hypothesis is confirmed by the replies to the direct question about the motivations for visiting the sanctuary: 82 people declared they were driven by devotion or cult, while only 13 primarily by an artistic/cultural interest (see Figure 3). Pilgrimage was indeed the most frequent activity (46) performed during the visit to the area where the sanctuary of Loreto is placed, followed by visit to relatives/friends (22%) and tourism (14%) (see Figure 4). Moreover, three-quarters (72%) of respondents did not visit other destinations during their travel and most of them (92%) had visited other sanctuaries in the past.

Those who went because of devotion/cult reasons, performed – certainly – pilgrimage activities, but also visited relatives or friends and did some tourism; while those who were driven by artistic-cultural interest, mostly performed tourism activities (see Figure 5).

The ways visitors usually get to know about the sanctuary of Loreto are through religious organizations (44%) – that is in many cases the parish they belong to – or through word-of-mouth (35%) (see Figure 6).
More than half of respondents had already visited the sanctuary of Loreto in the past, and one-third of them had visited it many times or regularly (see Figure 7): these results highlight that Loreto, besides being worldwide known, is also a very important domestic devotional destination. This observation is reinforced by the fact that for most of visitors the sanctuary represents, first of all, a place of worship and a pilgrimage destination as well as a symbol of religious belonging (see Table 2).

Respondents were asked to give three words they considered the most representative ones for the Sanctuary of Loreto. Figure 8 is a wordcloud based on visitors’ answers.
The words used by visitors to describe the sanctuary of Loreto may be classified into four groups:

- **words related to the Virgin Mary and to the function of the place**: Maria (Mary), Madonna, Annunciazione (Annunciation), maternità (maternity), grazia (grace), casa (home), famiglia (family);
- **attributes of the sanctuary**: santo/sacro (holy), unico (unique), emozionante (exciting), mistico (mystic), accogliente (comfortable), affascinante (fascinating), imponente/maestoso (majestic), commovente (moving);

Figure 4. Activities performed during the visit to Loreto.

Figure 5. Relation between visit motivation and activity performed in Loreto.
Figure 6. Channels used to know about the sanctuary of Loreto.

Figure 7. Times in Loreto.

Table 2. Significance of Loreto sanctuary for respondents (more than one choice allowed).

|                          | Frequency first place | Frequency second place |
|--------------------------|-----------------------|------------------------|
| Valid                    |                       |                        |
| A place of worship and a pilgrimage destination | 67                    | 14                     |
| A symbol of religious belonging | 16                    | 45                     |
| A symbol of national identity | 4                     | 14                     |
| Part of the artistic and historic heritage | 2                     | 3                      |
| A leisure place          | 1                     | 3                      |
| Other                    | 4                     | 4                      |
| Total                    | 94                    | 83                     |
| Missing                  | 6                     | 17                     |
| Total                    | 100                   | 100                    |
atmosphere: pace (peace), raccoglimento (meditation), silenzio (silence);

the sanctuary as a symbol of: fede (faith), devozione (devotion), preghiera (prayer), bellezza (beauty), arte (art), religione (religion), storia (history), pellegrinaggio (pilgrimage), speranza (hope), carità (love), forza (fortitude), vocazione (vocation), miracoli (miracles).

The last part of the survey investigated the use of visitors to the Sanctuary of Loreto made of ICTs, in different phases of their visit and with different purposes. While only 30 people used ICTs – mostly the smartphone – to prepare their visit to Loreto, 46 used them while on place, mostly to localize the sanctuary thanks to GPS systems (27%), to search for information about it (16%) and to take pictures (12%) (see Figure 9).

A total of 23 people declared to make use of ICTs also to support/facilitate their religious experience (see Figure 10). Most of them for prayer activities like reading the Bible or the breviary (14%). Only a few shared on social media contents related to their religious experience (6%) or video/audio-taped recordings of liturgies or events (3%).

When asked about their perception of ICTs in relation to their religious experience, several respondents (37%) stated that they integrate ICTs very well in their religious experience, while some less (26%) consider that ICTs do not have an important impact, and a minority (16%) thinks they are a distraction and use them as little as possible.

When asked if they connected to the Internet while at Loreto, 38 people answered they did, while 58 did not (4 missing values). Almost all of those who connected used an (Italian) data contract, only five connected in roaming and five through a Wi-Fi network.
Even if the sample is not big enough to generalize the findings, several hypotheses might be formulated, to understand the interplay of different variables in the relation between ICTs and visit experiences at places of the religious heritage. In particular, three types of relations are worth to be considered:
• if the travel company influences the use of ICTs while at destination;
• if the travel reason and the type of activities performed during the visit influence the use and perception of ICTs;
• if demographic aspects (e.g. age) influence the use and perception of ICTs.

To analyze the interplay of such variables in the sample, cross-tabulations are employed as a statistical tool used to analyze categorical data – i.e. data or variables that are separated into different categories that are mutually exclusive of one another. In Tables 3 and 4, the crossing between travel company and activities performed during the stay at Loreto, respectively during the religious experience at the sanctuary are considered. A difference emerges between those who went to Loreto with the family, who mostly did not use ICTs (14% used vs. 22% did not use), and those who went with friends that mostly used them (13% used vs. 5% did not use). As far as the religious experience is concerned, only a few integrated ICTs, despite the travel company. In the case of people who traveled with an organized pilgrimage group, if half of them used ICTs during the visit to the sanctuary (13% who used vs. 14% who did not use), when it comes to the religious activity they also left their devices (7% who used vs. 20% who did not use).

Since they were not primarily driven by pilgrimage reasons, those who went to Loreto to visit relatives and friends might be added to those who were driven primarily by tourism reasons, as well as to those who went to attend cultural events. On their own, those who went to attend religious events might be added to those who went for pilgrimage. Table 5 reports the cross-tabulation between the perception of ICTs with reference to the religious experience and the type of activity performed in Loreto according to this groups’ reshuffle. Both those who performed tourism-related

Table 3. Cross-tabulation between travel company and use of ICTs during the visit at Loreto.

| Did you do any activity using ICTs during your stay at Loreto? | Alone | With the family | With friends | With an organized non-religious tour group | With an organized pilgrimage group | Total |
|---------------------------------------------------------------|-------|----------------|-------------|------------------------------------------|-------------------------------|-------|
| Yes                                                           | 3     | 14 (39%)       | 13 (72%)    | 3                                        | 13 (48%)                      | 46    |
| No                                                            | 6     | 22 (61%)       | 5 (28%)     | 4                                        | 14 (52%)                      | 51    |
| Total                                                         | 9     | 36 (100%)      | 18 (100%)   | 7                                        | 27 (100%)                     | 97    |

Table 4. Cross-tabulation between travel company and use of ICTs in the religious experience at Loreto sanctuary.

| Did you do any activity using ICTs during your religious experience at the sanctuary? | Alone | With the family | With friends | With an organized non-religious tour group | With an organized pilgrimage group | Total |
|------------------------------------------------------------------------------------|-------|----------------|-------------|------------------------------------------|-------------------------------|-------|
| Yes                                                                                | 4     | 4 (11%)        | 6 (32%)     | 2                                        | 7 (26%)                       | 23    |
| No                                                                                 | 5     | 33 (89%)       | 13 (68%)    | 5                                        | 20 (74%)                      | 76    |
| Total                                                                             | 9     | 37 (100%)      | 19 (100%)   | 7                                        | 27 (100%)                     | 99    |
activities (53.5% within group) and those who performed pilgrimage-related activities (42.5% within group) mainly declared that ICTs integrated very well with their religious experience, but a slightly bigger proportion of those who declared that ICTs are mainly a distraction or that they do not have an important impact belongs to the second group (23.5% + 34.5% = 58.0% within group).

Interestingly, as emerges from Table 6, even most of those who declared they integrated ICTs very well in their religious experience did not use them to support their visit to the sanctuary (38% who did not use ICTs vs 72% who did use ICTs). On the contrary, it is consistent to observe that the wide majority (72%) of those who used ICTs in the sanctuary also reported of a perfect integration.

As for the device, smartphones widely dominate the scene: a wide majority of those who integrate very well ICTs in their religious experience used a smartphone during their visit to the sanctuary (62%) (see Table 7).

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**Table 5. Cross-tabulation between type of activity performed during the visit to Loreto and perception of ICTs.**

| What type of activities did you do during your visit to the area where the sanctuary of Loreto is placed? | Tourism, visit to relatives and friends, attend cultural events | Pilgrimage, attend religious events | Other | Total |
|---|---|---|---|---|
| How do you perceive ICTs with reference to your religious experience? | They are mainly a distraction, I use them as little as possible | 5 (18%) | 11 (23.5%) | 0 | 16 |
| | They do not have an important impact (either positive or negative) in my religious experience | 8 (28.5%) | 16 (34%) | 1 | 25 |
| | I integrate them very well in my religious experience | 15 (53.5%) | 20 (42.5%) | 2 | 37 |
| Total | 28 (100%) | 47 (100%) | 3 | 78 |

**Table 6. Cross-tabulation between activities performed with ICTs in the religious experience at Loreto sanctuary and perception of ICTs.**

| Did you do any activity using ICTs during your religious experience at the sanctuary? | Yes | No | Total |
|---|---|---|---|
| How do you perceive ICTs with reference to your religious experience? | They are mainly a distraction, I use them as little as possible | 3 (14%) | 13 (24%) | 16 |
| | They do not have an important impact (either positive or negative) on my religious experience | 3 (14%) | 22 (38%) | 25 |
| | I integrate them very well in my religious experience (e.g. reading the breviary, keeping a spiritual diary) | 15 (72%) | 22 (38%) | 37 |
| Total | 21 (100%) | 57 (100%) | 78 |
As far as the relation between age and the integration of ICTs in the religious experience is concerned (see Table 8), respondents who declared that they integrated ICTs very well mostly belong either to the group comprised between 31 and 45 and to the one between 46 and 60 years old (15 + 9 = 24). Surprisingly, most of those in the age group that is commonly considered the highest ICTs performer – that is those between 18 and 30 years old – believe that ICTs do not have an important impact on the religious experience. This might be explained with reference to religious maturity, which usually comes with age. Tables 9 and 10 help to confirm this hypothesis: a higher portion of so-called digital natives (people up to 31 years old) than of those belonging to older age groups performed activities with ICTs during their stay in Loreto, even if such activities were not necessarily related to the religious experience (i.e. 25/36 that is 70% vs. 21/61 that is 35%). When it comes, in fact, to the religious experience, only a few digital natives integrated ICTs (6/36 that is 17% vs. 17/63 that is 30% of people in other age groups).

Table 7. Cross-tabulation between type of ICT used during the visit to Loreto and perception of ICTs.

| If yes, which of the following ones? | Smartphone | Tablet | Laptop | Digital camera | Total |
|-------------------------------------|------------|--------|--------|----------------|-------|
| They are mainly a distraction, I use them as little as possible | 4 (19%) | 0 | 2 | 0 | 6 |
| They do not have an important impact (either positive or negative) on my religious experience | 4 (19%) | 1 | 0 | 0 | 5 |
| I integrate them very well in my religious experience (e.g. reading the breviary, keeping a spiritual diary) | 13 (62%) | 1 | 0 | 2 | 16 |
| Total | 21 (100%) | 2 | 2 | 2 | 27 |

Table 8. Cross-tabulation between age and ICTs perception.

| Age | Younger than 18 | Between 18 and 30 | Between 31 and 45 | Between 46 and 60 | Over 60 | Total |
|-----|----------------|------------------|------------------|------------------|--------|-------|
| How do you perceive ICTs with reference to your religious experience? | They are mainly a distraction, I use them as little as possible | 0 | 4 (20%) | 5 (19%) | 5 (28%) | 2 | 16 |
| | They do not have an important impact (either positive or negative) on my religious experience | 4 | 9 (45%) | 7 (26%) | 4 (22%) | 2 | 26 |
| | I integrate them very well in my religious experience (e.g. reading the breviary, keeping a spiritual diary) | 2 | 7 (35%) | 15 (55%) | 9 (50%) | 4 | 37 |
| Total | 6 | 20 (100%) | 27 (100%) | 18 (100%) | 8 | 79 |
Conclusions

The market offers, today, an enormous range of possibilities in terms of ICTs, many of which are affordable to most people. The choice and the novelty, however, are not goods in themselves, since they do not alone facilitate or better communication and exchange. This article investigated the border between ICTs as obstacles and ICTs as facilitators of experiences, taking into consideration the dialectic between religious experience and tourism experience when it comes to visiting heritage sites of a religious nature. On the one side, in fact, tourism is probably one of the sectors where ICTs are playing the biggest role, with extreme cases of tourists who are not able to truly enjoy their time because of being affected by an ‘always connected addiction’. On the other side, the religious experience is the most intimate among the human experiences, where ICTs should work as external support. Looking at the use and perception of ICTs in visiting sites of religious nature, thus, allows investigating the burdens of these two very different types of experiences.

In this article, the results of a survey were presented, which was conceived to be the first one of a broader investigation on the use and role of ICTs at sanctuaries and pilgrimage sites of the Catholic faith, aiming also at unveiling the differences between a worship-oriented and a tourism-oriented use. The Holy House of Loreto, one of the most internationally known sanctuaries of the Catholic faith was taken as the first case study; it represents for visitors a place of worship, a pilgrimage destination as well as a symbol of religious belonging. Even if the sample was not big enough to generalize the findings, results shed light on the dynamics at play. ICTs were used mostly for tourism/visit-related activities, such locating the place, searching for information and taking pictures, rather than to support religious practices. Even the so-called digital natives, who reported they have performed different activities with ICTs

| Age                  | Younger than 18 | Between 18 and 30 | Between 31 and 45 | Between 46 and 60 | Over 60 | Total |
|----------------------|-----------------|-------------------|-------------------|-------------------|---------|-------|
| Did you do any activity using ICTs during your stay at Loreto? |                  |                   |                   |                   |         |       |
| Yes                  | 5               | 20 (70%)          | 12 (43%)          | 4 (18%)           | 5       | 46    |
| No                   | 2               | 9 (30%)           | 16 (57%)          | 19 (82%)          | 5       | 51    |
| Total                | 7               | 29 (100%)         | 28 (100%)         | 23 (100%)         | 10      | 97    |

| Age                  | Younger than 18 | Between 18 and 30 | Between 31 and 45 | Between 46 and 60 | Over 60 | Total |
|----------------------|-----------------|-------------------|-------------------|-------------------|---------|-------|
| Did you do any activity using ICTs during your religious experience at the sanctuary? |                  |                   |                   |                   |         |       |
| Yes                  | 3               | 3 (10%)           | 10 (36%)          | 5 (20%)           | 2       | 23    |
| No                   | 4               | 26 (90%)          | 18 (64%)          | 20 (80%)          | 8       | 76    |
| Total                | 7               | 29 (100%)         | 28 (100%)         | 25 (100%)         | 10      | 99    |
during their stay in Loreto, claimed that they do not have an important impact on the religious experience. The motivation driving the visit is, indeed, the variable that appears to impact the most the perception of ICTs: most of those who visited the Holy House with pilgrimage/religious goals, in fact, did not ascribe to ICTs an important role or considered them as a distraction. The fact that only a very small portion of respondents reported to have shared contents on social media once more proves that the religious/spiritual experience usually remains personal: religious/spiritual communication is reserved to God. Among the limitations of the research are the dimension of the sample, the combination of face-to-face and online surveys, and the use of just the local language (i.e. Italian) for the survey.

The article also presented a review of relevant literature in the field, which showed that it has been given scarce attention, considering that only a few studies are available.

Much still needs to be done, therefore, to understand if using ICTs makes a difference in the visit experience at religious sites and which role they might have. As for the authors of this article, the plan is to extend the survey conducted at the sanctuary of Loreto to other sanctuaries and different types of places of religious nature, considering the interplay between site-related characteristics and respondents’ characteristics.

**Disclosure statement**

No potential conflict of interest was reported by the authors.

**Notes on contributors**

**Silvia** is a researcher and lecturer at the Faculty of Communication Sciences at Università della Svizzera Italiana – USI, Lugano (Switzerland), where she also coordinates the activities of the UNESCO Chair in ICT to develop and promote sustainable tourism in World Heritage Sites. She obtained a PhD with a thesis on pragmatic and argumentative features of Online Travel Reviews. She was instructor of the first Massive Open Online Course (MOOC) in “eTourism” and collaborated to the realization of the MOOC “Tourism Management at WHS” in collaboration with the University of Paris 1 Panthéon-Sorbonne. She is member of IFITT – the International Federation for IT and Travel & Tourism. Her research activities cover topics mainly related to role and impact of Information and Communication Technologies (ICTs) in cultural and religious tourism, the use of ICTs to promote Heritage preservation, communicative features of online textual genres.

**Marc-Marie** is a Salesian priest, PhD candidate at the Faculty of Institutional Communication of the University of the Holy Cross in Rome. Born in Kipushi, DR Congo, after graduating in Philosophy he moved to Rome to study Theology. From 2010 to 2016 he worked in Lubumbashi (Congo) as Delegate for social communication Provincial Council of the Salesian of Don Bosco, then as Rector of the Salesian University School of Informatics of Salama (ESIS), and as coordinator of social communication of the Salesian region of Africa and Madagascar. He was the initiator of the Don Bosco radio in Lubumbashi.

**Lorenzo Cantoni** is professor and director of the Institute for Communication Technologies at Università della Svizzera Italiana, USI – Lugano (Switzerland), where he also directs the laboratories webatelier.net, New Media in Education Lab and eLearning Lab. He is chair-holder of the UNESCO chair in ICT to develop and promote sustainable tourism in World Heritage
Sites, established at USI. At USI he is also director of the Master in Digital Fashion Communication, realized in collaboration with the University of Paris 1 Panthéon-Sorbonne, and a member of the scientific committee of the Master in International Tourism. He was president of IFITT – International Federation for Information Technologies in Travel and Tourism from 2014 to 2018. His research interests are in the overlap of communication, education and new media, ranging from computer mediated communication to usability, from eLearning to eTourism, and from ICT4D to eGovernment.

**ORCID**
Silvia De Ascaniis [http://orcid.org/0000-0002-6675-2702](http://orcid.org/0000-0002-6675-2702)

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