The digital transformation of tourism in the city

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International arrivals grew by 7% in 2017, reaching more than 1.3 billion. In Europe, they increased by 8% and reached 672 million in 2017, of which 538.7 million were in the European Union – that is to say more than the population of the EU (511.8 million), (UNTWO, 2018). But while tourists are ever more numerous, especially in cities,[1] there is now huge competition between cities. In addition to conventional sources of touristic attractiveness (quality of infrastructures, accommodation capacities, service quality, quality of cultural and/or natural and/or historical resources, management of mobilities towards and inside the city, etc.), the digital revolution and the digital tools available on mobile devices have led to the provision of new services within destinations. By offering a set of innovative services – made possible and distributed both via dedicated applications (virtual reality, augmented reality, chatbots, etc.) and through more general platforms (interaction on social networks, etc.), private and public actors involved in tourism are seeking to renew their cities. Digital technologies offer many opportunities for innovation to build the urban destination of tomorrow – a smart destination (Gretzel et al., 2015), that is to say a destination in which the tourism experience will be central. These technologies will continue to change tourism practices (Buhalis and Law, 2008) and tourists' behaviours (Steinbauer and Werthner, 2007). There is a significant literature concerning these digital technologies and their impacts on tourism (Buhalis and Law, 2008), especially concerning changes in the modes of interaction between tourists and tourism organizations (Buhalis, 2003, quoted in Buhalis and Law, 2008).

One of the more important aspects of the digital economy in tourism is the expansion of the use of social networks. There is a growing literature on social networks and tourism concerning the interactions between businesses (Tran *et al.*, 2016, Sorensen, 2007), as well as between businesses and their clients. For example, social networks are the richest and most diversified sources of information online (Költringer & Dickinger, 2015 quoted by par Molinillo, 2017). Many tourism actors use social networks to improve their image (Molinillo *et al.*, 2017). Social networks have completely changed the market conditions for actors responsible for specific destinations, even though these actors are only just beginning to use social networks to promote their destinations (Hays *et al.*, 2013, p. 236). They typically have Twitter accounts to communicate about and promote their destination, with some creating hashtags for specific events.
But these social networks also allow tourists – and local residents – to share information, videos, pictures, experiences, and so forth (Munar and Jacobsen, 2014); they influence the behaviour of other tourists. For instance, Kim and Stepchenkova (2015) show that pictures posted online by visitors have a significant effect on perceptions of destinations by other users of social networks and their travel intentions.
Social networks also allow tourists to express their level of satisfaction in real time concerning their current destination, creating a major challenge in terms of reputation: "Content generated by tourists, travellers, professional travel bloggers and travel journalists who post, comment and share information on social media channels is arguably the greatest digital challenge of destination branding today" (Oliveira & Panyik, 2012). Indeed, these practices can very quickly affect a destination's reputation – and therefore, by extension, the reputation of the city, too.

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[1] Inducing a number of negative effects, leading to suggestions that certain destinations are affected by overtourism.

One other important issue linked to digital technologies is the fact that they upset borders. New actors from the tech sector have come on to the scene, along with actors from the sharing economy. The new participatory and collaborative tools that characterize them and are accessible to all blur the boundaries between the actors of supply and demand, and between residents and businesses. Consequently, these changes require new rules and new regulations, as issues relating to Airbnb and Uber have shown in many cities.

Lastly, digital technology provides new types of data, representing particularly rich resources for analysing the behaviour of tourists. However, the structure of these databases (big data) requires new methods of analysis if these data are to be useful in understanding the tourist phenomenon. While the data may be exhaustive, the sources must nevertheless be critically examined. Moreover, researchers face an ethical issue in relation to the confidentiality of personal data. This issue could hinder the use of this data on a fine scale. The analysis of digital data generated by tourists is a key challenge for researchers that presents both possibilities and constraints. In particular, it offers an incredible opportunity to gain a deeper understanding of how tourist destinations are being redefined.

Proposals for communications – which could focus on cities, but also on broader destinations – may relate to:
- new services provided in the city (applications for discovering a city's resources, virtual reality, augmented-reality applications, QR codes, chatbots, etc.) in order not only to facilitate but also to renew the experience of the city; new services concerning events and urban tourism.
- transformations affecting tourist behaviours and practices as a result of digital technologies. Do digital technologies and M-tourism (mobile tourism) modify mobilities within the city?
- the way in which actors in urban tourist destinations use social networks to communicate about their city. How do social networks affect tourism in, and the global reputation of, the city? How can bad reviews be countered?
- the way in which these uses of digital tools lead actors to reconsider the tourist destinations they are responsible for.
- who the new actors of tourist destinations are (digital booking platforms, online marketplaces and sharing platforms for organizing accommodation, transport, etc.) and what their role is in tourism in the city. What is the role of ordinary people (residents and tourists) within the framework of the sharing economy?
- lastly, the new role of data produced through the use of digital tools, which will be analysed in terms of the role they play in renewing a given destination.

References
Buhalis D. and Law R. (2008) Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of eTourism research, Tourism Management, Volume 29, Issue 4, p. 609-623
Gretzel U., Sigala M., Xiang Z. Koo S. (2015) Smart tourism: foundations and developments, *Electronic Markets*, September, Volume 25, Issue 3, pp 179–188
Hays, S., Page, S.J., Buhalis, D., Social media as a destination marketing tool: its use by national tourism organisations, Current Issues in Tourism, 16 (3), 2013, pp. 211-239, DOI: 10.1080/13683500.2012.662215
Kim H., Stepchenkova S. (2015), Effect of tourist photographs on attitudes towards destination: Manifest and latent content. Tourism Management, 49, 29–41

Molinillo S., Liébana-Cabanillas F. & Anaya-Sánchez R. (2017), Destination image on the DMO's platforms: official website and social media, Tourism & Management Studies, 13(3), 5-14

Munar AM & Jacobsen JKS (2014) Motivations for Sharing Tourism Experiences through Social Media *Tourism Management*, vol 43, p. 46-54.

Oliveira E., Panyik E. (2012), Context and co-creation: Digital challenges in destination branding with references to Portugal as a tourist destination, Journal of Vacation Marketing p. 1–22

Sørensen F. (2007) The Geographies of Social Networks and Innovation in Tourism, Tourism Geographies, 9:1, 22-48, DOI: 10.1080/14616680601092857

Steinbauer, A. and Werthner, H. (2007), "Consumer Behaviour in eTourism", in Information and communication technologies in tourism 2007 : proceedings of the international Conference in Ljubljana, Slovenia 2007 / Marianna Sigala, Luisa Mich, Jamie Murphy (eds.).

Tran M., Jeeva A., Pourabedin Zahra (2016) Social network analysis in tourism services distribution channels, Tourism Management Perspectives 18, 59–67UNWTO (2018) World Tourism Barometer