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eTOURISM CHALLENGES FOR URBAN TOURISM DESTINATIONS

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Introduction

The term eTourism refers to the use of information and communication technologies (ICTs) in tourism and reflects the digitalisation of all processes and the value chain in the tourism industry, as well as in strategic relationships with stakeholders (Buhalis and O’Connor 2005). In the last two decades the emergence and expansion of ICTs (Figure 25.1), such as the web, online booking systems, destination management systems, online marketing platforms, mobile devices and social networks, among other developments, have attracted the attention of many researchers in the tourism field (Gretzel et al. 2016, Uysal et al. 2016, Kim et al. 2018b). These technologies have brought new challenges, risks and dilemmas, in aspects as diverse as information processing (see Mariani et al. 2018), the adoption of knowledge management infrastructures (Ávila-Robinson and Wakabayashi 2018), the reinterpretation of destination brands (de Rosa and Dryjanska 2017) and the redefinition of the role of the tourist (Xiang 2018). As a consequence, despite the possibilities offered by ICTs, companies in the sector do not use them to their full potential, or even always appropriately (Whyte 2018).

ICTs play a critical role in the competitiveness of destinations (Buhalis and Law 2008, Boes et al. 2016, Gretzel et al. 2016). These new technologies help travellers save time, facilitate the personalisation of services, allow them to enjoy social experiences and transform the way that customers interact with brands and destinations (Bloomberg Media Group 2019, Powell 2019). For urban destinations the technological challenge is an important strategic element in value creation and differentiation in the global context of increasing competition (Mariani et al. 2018).

To better understand tourists and to adapt to their needs and preferences, it is important that technological advances are understood; these include procurement platforms, data analysis and relationship management systems (Bowen and Whalen 2017, Ávila-Robinson and Wakabayashi 2018, Sigala 2018). Interconnectivity, data capture and knowledge creation are fundamental for decision-making in this context (Sigala 2018).

On the one hand, technologies allow the replacement of human interactions (Bowen and Whalen 2017) while providing similar or even higher levels of satisfaction (Sheivachman 2017a). On the other, they encourage the establishment of more interactive relationships among companies, tourists and destinations, and among tourists themselves, affecting the processes of destination image and visit intention creation (Ávila-Robinson and Wakabayashi 2018, Mariani et al. 2018).
ICTs allow tourists to co-create their tourism experiences (Buhalis and Foerste 2015) through interaction with other tourists, residents, businesses, destinations and interconnected devices, affecting their satisfaction, well-being and future behaviours (Dickinson et al. 2016, Lin et al. 2017, Lund et al. 2018, Rihova et al. 2018). Technological advances re-engineer the whole process of development, management and marketing of destinations (Buhalis and Law 2008) and empower the actors in tourism (Sigala 2018) to the point that they build destination image through informal conversations outside the control of the destination (Lund et al. 2018).

Moreover, in the near future, one of the greatest challenges for destinations will be related to the opportunities generated by the constant growth in the availability of data and information (Xiang 2018). This phenomenon will require destinations to apply greater interdisciplinary understanding than hitherto to ensure they adapt their strategies to changes driven by technological advances (Sigala 2018). These developments mean that there has never been such an exciting time for the travel and tourism industry (Bowen and Whalen 2017).

The purpose of this chapter is to discuss critically, based on a review of recent literature on the topic, the challenges faced by urban tourism destinations with regards to eTourism and new technologies. Publications are grouped into categories and qualitative analysis is applied to identify the main topics and challenges for urban tourism destinations. Based on this analysis, the chapter discusses tourist experience, value co-creation, mobile technologies, sharing economies, social media, governance, information management and management of the destination offer. The theoretical contribution of this chapter, thus, revolves around a comprehensive literature review of eTourism and urban destinations. Practical implications are also discussed, with a particular emphasis on the potential implementation of technological developments.

**Technology developments in the tourism environment**

International tourism has experienced major continuous growth in the last decade, with an increase not only in the number of international tourist arrivals, but also in the number of destinations that have been opened up to tourism worldwide (UNWTO 2018). This growth...
calls attention to issues that affect cities and their stakeholders, such as sustainability, competitiveness, technological developments, financing, innovation, demand-led behaviour and development of the offer, among others. The expansion of ICTs is perhaps one of the most important issues because it has given rise to a new context for both tourists and businesses, destinations and local residents (Ávila-Robinson and Wakabayashi 2018, Kim et al. 2018a). Technologies have taken tourism management from a static position, where managers and tourists used them only as accessories, to a dynamic position where destinations and stakeholders interact in real time to co-create knowledge and tourist experiences (Sigala 2018, Xiang 2018, Buhalis and Sinarta 2019).

Among recent technological developments, researchers have highlighted three particular areas of interest for tourism: (1) the effect of tools such as smartphones, GPS and virtual reality on tourist behaviour and data collection (Thimm and Seepold 2016); (2) the creation of collaborative experiences with the tourist; and (3) destination management and governance (Gretzel et al. 2016, Ávila-Robinson and Wakabayashi 2018). Bowen and Whalen (2017) emphasised technology, with a focus on robotics and artificial intelligence, big data analytics, social media and the sharing economy, while Kim et al. (2018a) highlighted the advantages of information technology management. From an integrative approach, Sigala (2018) argued that ICTs have created a complex socio-technical smart-tourism ecosystem, characterised by the greater generation of intelligence, transformation of the user’s experience and the more efficient management of destinations’ marketing strategies and decision-making processes. According to Xiang (2018), in tourism in the last two decades, ICTs have evolved from marketing-driven tools to knowledge-creation tools – but great challenges will be faced in the immediate future “related to the interactions between human and data, networks and machine intelligence” (p. 149).

**Technological challenges for the management of urban destinations**

**Tourist experience**

In the tourism context, the tourist experience is defined as “a constant flow of thoughts and feelings during moments of consciousness which occur through highly complex psychological, sociological, and cognitive interaction processes” (Kang and Gretzel 2012, p. 442). Two of the most significant advances in the area of tourist experiences are the increase in the degree of co-creation and the integration of ICTs (Neuhofer et al. 2014).

As tourists now seek to “live” experiences rather than simply buy products (Seaton 2017), cities are being challenged to adapt to this environment and offer them new, memorable experiences (Park and Santos 2017) (Figure 25.2). Destination management organisations (DMOs) compete for travellers’ attention; technologies allow them to maintain communication with the travellers during their visits and send useful and timely information to improve their experiences (Sorrells 2019). These technologies combine with the interpersonal interactions that take place between tourists and private company/DMO employees to generate an interactive and unique experience. These interactions, whether face-to-face or through ICTs, are at the core of this industry (Powell 2019). Wearing and Foley (2017) emphasised that creative and interactive processes create a better understanding of current tourist urban experiences. Of the experiences that tourists have while planning and during their trips, those that are unique and unexpected are the most memorable. These experiences are shared during and after the journey through social media, especially when positive emotions and experiences have been generated (Kim and Fesenmaier 2017). In this context, service providers help to
generate memorable and authentic experiences (Zatori et al. 2018), knowing that the effect of positive experiences is very small compared to the effect of negative experiences (Jackson 2019). In this regard, perhaps destinations should pay special attention to their ability to react in real time. According to Buhalis and Sinarta (2019) and Boes et al. (2016), ICTs help destinations enhance the tourist experience through co-creation by engaging them through real-time service based on dynamic big data mining, artificial intelligence and contextualisation.

In conclusion, destinations must offer experiences tailored to the tourists’ needs. As Fromm (2019) commented,

the expectations of Icelandic tourists aged over 60 and those of Chinese Millennials, for example, are clearly going to be very different so it’s crucial for travel brands to invest in truly understanding a diverse range of expectations and motivations to be able to offer the most suitable and personalized tourism product.

To ensure that the experience is personalised, this adaptation to the consumer’s needs must involve the redesign of DMOs’ official websites. This is the case with the city of Miami and the island of Puerto Rico; their new websites offer hyper-personalised services using cookies and different types of content, adapted to each stage of the tourist experience.
Co-creation

Studies focusing on quality of life and well-being in tourism point out that their effects are mainly focused on the relationship between two groups, local residents and tourists. Tourist activities affect residents in their social life, leisure, cultural offerings, infrastructure saturation, pollution, etc. (Uysal et al. 2016). Rivera et al. (2016) analysed the evaluation that residents make about the well-being they derive from tourism (e.g. income, quality of life), and concluded that tourism development influences happiness, especially through aspects not directly related to income. For example, the quality of life of local residents is closely related to the sustainability of the destination (Mathew and Sreejesh 2017). It is also important to avoid conflicts between residents and tourists, because should these increase this can affect the environment (e.g. environmental degradation, reduction of local resources) and impact on local lifestyle, culture and saturation of common spaces and public services (Romão et al. 2018).

Woo et al. (2015) showed that the value that local residents attribute to tourism positively affects their satisfaction, both material and immaterial, which can lead them to support tourism development. When residents perceive economic and sociocultural benefits, they increase their collaboration in the co-creation of the value of the tourism offer. Tourists participate more when they feel welcome (Lin et al. 2017). The co-creation of experiences by tourists improves their evaluation of their journeys, makes them more loyal and increases their satisfaction (Mathis et al. 2016). ICTs encourage interrelationships between stakeholders and destinations and value co-creation (Buhalis and Amaranggana 2013, Gretzel et al. 2015). Therefore, destinations should create the structures necessary to support suppliers in the implementation of strategies to foster greater cooperation between residents and tourists, which will positively affect value co-creation. Participation increases social value and improves the relationship between hosts and guests and between tourists and receiving communities (Rihova et al. 2018).

Conversely, where residents feel hostile towards tourism, due to its negative effects on their communities (Pinke-Sziva et al. 2019), this can degenerate into value-destruction processes (Lin et al. 2017). Similarly, when negative emotions are generated in the tourist by incongruous or unsatisfactory practices, this, in turn, creates feelings of frustration or unhappiness which can cause value destruction (Malone et al. 2018).

Mobile technologies

Mobile technologies, in particular the smartphone, have changed and personalised the tourist experience (Neuhofer et al. 2015, Cacho et al. 2016, Wang et al. 2014, 2016). The use of the smartphone before, during and after a stay at a destination “is shaped by complex interactions between contextual factors, cognitive beliefs, previous experiences and everyday use” (Wang et al. 2014, p. 11). Not only can tourists use mobile devices to search for information and make reservations about services (e.g. hotels, planes, cars) at any time and place, they can also access services that provide micro-experiences, such as accessing flight-status information or estimating the waiting time for public transport (Wang and Wang 2010). The combination of applications that offer geolocation, ubiquity, access to information, social networks, entertainment and other useful tools for tourists, promote the use of smartphones in tourism (Vallespín et al. 2017). In addition, mobile devices encourage tourists to share their experiences with family and friends, other visitors and local residents and to interact with the destination and improve the tourist experience (Neuhofer et al. 2012, Cacho et al. 2016). For these reasons, destinations such as Japan, Singapore and India have begun to offer free Wi-Fi connections, or provide their visitors with SIM cards, so that they can remain connected; these can include free apps that allow access to multiple services.
The needs of tourists while actually on their travels increase the importance and effectiveness of mobile technology in supporting their real-time decision-making (Wang et al. 2012). Thus, to contribute to positive tourist experiences, destinations should create Internet access for mobile devices, particularly in places such as airports, railway stations, hotels and at tourist attractions (da Costa Liberato et al. 2018). In addition, destinations can use a growing number of mobile technologies to increase their attractiveness and satisfaction. For example, Buhalis and Foerste (2015) suggested that SoCoMo marketing can provide the tourist with dynamic and personalised recommendations for each destination, due to a combination of social media, context-aware marketing (location-based) and mobile devices. Other mobile technologies that can help DMOs improve the tourist experience are mobile apps (Gupta et al. 2018), gamification (Xu et al. 2017), augmented reality (Paulo et al. 2018) and virtual reality (Kim et al. 2018b), among others. For example, the Swiss city of Laax, focused on winter sports, has developed a gamification-based app for skiers that combines useful services, information and a loyalty programme (Sorrells 2019). The province of Malaga has developed an augmented reality app that provides data (including contact information) about tourist attractions and other important services, such as banks and petrol/gas stations. Similarly, Helsinki has developed a mobile platform for the benefit of its Chinese tourists. Specifically, they collaborated with Tencent and Idean, which have great penetration in this market, and integrated the services of Lonely Planet, Yelp, Google Translator, Uber and an e-wallet. In addition, tourist guides now use apps that go beyond the provision of simple descriptions, to include mini games, such as puzzles, riddles and hunts for virtual items in real-world locations (Constine 2017). Along similar lines, Oslo has developed an augmented reality app in which one of its most famous playwrights acts as a guide.

Therefore, mobile devices help to improve the tourist experience, even in an affective, emotional sense, although an obsessive dependency on the smartphone can generate negative feelings (Lalicic and Weismayer 2018). In fact, although digital dysconnectivity limits access to tourist services (Tanti and Buhalis 2017), a large percentage of tourists want to digitally disconnect when they are on vacation (Dickinson et al. 2016), which has given rise to tourist destinations that expressly advertise mobile phone dead zones (Gretzel 2014).

**Sharing economy**

The “sharing economy”, “peer to peer economy” or “collaborative consumption” are terms that refer to the practice of sharing (or exchanging) access to underutilised goods and services through digital platforms. Although the practice of sharing with others is nothing new in social relationships, the forms of sharing that have emerged in recent years are characterised by their ability to facilitate interactions between strangers, a strong reliance on digital technologies and the participation of high cultural capital consumers (Schor and Fitzmaurice 2015).

The collaborative economy has a wide field of action in the tourism world and has created a large number of marketplaces and businesses that have provided opportunities for professionals and small companies. In addition, it offers new ways to travel due to the possibility of sharing resources and experiences (Fundación Orange 2016). Thus, in the tourism field, the “sharing economy” creates challenges for individuals, businesses, destinations and tourism services. According to Cheng (2016, Cheng and Foley 2018), the main topics hitherto covered by the literature are related specifically to new business models in the accommodation sector (e.g. Airbnb, Domio) and their effects on duration and type of stay, the tourist experience and competition with the hotel sector. Airbnb is seen as a disruptive model that has radically modified the accommodation sector, allowed urban tourists access to informal accommodation, reduced travel costs and offer a
more authentic experience at the destination (Guttentag 2015). Its success has caused rapid expansion into large cities and rural, beach and mountain destinations (Adamiak 2018).

“Sharing economy” models have more recently emerged in other sectors. In urban transport, one can hire vehicles with drivers, for example Uber and Cabify, and car-share, for example, using BlaBlaCar, and share bicycles and skateboards using, for example Mobike, OFO and Wind. In the catering sector there are food delivery business models, for example Deliveroo and EatStreet, “ghost kitchens”, for example UberEats and DoorDash. In social eating and meal sharing, where one shares one’s table and home, there are EatWith and Meal Sharing.

The growth of the “sharing economy”, although it allows destinations to offer alternative services to those of the traditional economy (Juul 2015), raises dilemmas and challenges for the affected sectors in terms of regulation and taxation (Williams and Horodnic 2017) and for the coexistence and sustainability of destinations (McLaren and Agyeman 2015). These dilemmas should lead destinations to improve their coexistence and sustainability, which is being demanded by both residents and different tourist profiles (Fromm 2019). Some companies have already begun efforts to reduce their negative effect on destinations. Airbnb has launched a new fund in Europe, called the Community Tourism Programme, to finance projects to foster local customs and traditions.

Social media

The Internet, and especially social media, influences how tourists look for information, and create and share content on destinations. DMOs must adapt their marketing strategies to this channel, combining actions under their direct control (e.g. promotions, institutional campaigns) with others in which tourists actively participate. For example, some US destinations are, on the one hand, investing heavily in social media advertisements, sending out calls-to-action and offering tool-planning trips, and on the other they are seeking to generate interactions with, and between, users, and to take advantage of the content (images, reviews, etc.) that these generate. In this sense, Jansson (2018) suggested that when tourists view and share content through social media this affects the behaviour of other tourists, because this content, whether positive or negative, is used as an information source by these tourists.

Similarly, Lund et al. (2018) noted that content shared by tourists via social networks has greater impact than DMO strategies on destination brands, as tourists are more trusting of their peers than commercially motivated DMOs. Stojanovic et al. (2018) emphasised the importance of social networks in the relationship between destinations and tourists, as they create greater brand awareness and brand equity than traditional media. Thus, DMOs and local retailers should seek ways to encourage tourists to engage with social media, that is, to persuade them to generate and share content about the destination (e.g. Mariani et al. 2018). Therefore, destinations should analyse which mechanisms (e.g. website features, content, interactivity) lead the tourist to engage with the destination’s social media website, as these have been shown to have positive effects on loyalty and trust in the destination, among other outcomes. In particular, DMOs must adapt their messages to the channel, because destination image and visit intention are influenced differently based on content and the websites used (e.g. YouTube, Instagram, Facebook) (Molinillo et al. 2018).

In addition, social media have empowered the tourist in the creation of destination image. For some tourist profiles it is not enough to live the experience, they also want to share it with others through their social media, thereby projecting an image and lifestyle (Seaton 2017). DMOs have to understand the processes that lead tourists to influence destination image. So et al. (2018) noted that the social visibility of the consumption of the tourist product leads to
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cognitive, affective and evaluative identification with the destination, which prompts tourists to share their experiences on social media. Lund et al. (2018) argued that this poses a challenge for DMOs as they must cope with a reality where destination brands are formed mainly as a result of experiences shared by tourists. These authors suggested that DMOs must recognise that content generated by tourists is an ally in the creation of destination image and, through storytelling, break down the barriers between online and offline environments. In this regard, de Rosa et al. (2019) showed the difficulty destinations face in achieving convergence between the brand identity of a city (projected image) and its brand image (perceived image). Similarly, destinations face difficulties in eliminating or reducing stereotypical views and negative aspects of their image, for which they must select an appropriate audience, adjust their message and use trusted sources (Avraham 2018).

Governance

Governance refers to “the interactions among structures, processes and traditions that determine how power and responsibilities are exercised, how decisions are taken, and how citizens or other stakeholders have their say” (Graham et al. 2003, pp. 2–3). Tourist destinations embody complex systems due to the convergence of diverse interests of multiple stakeholders which are not always aligned. Governance is a means of resolving conflicts between parties (Laws et al. 2011) and to achieve sustainable development that minimises adverse impacts and maximises benefits for local communities (de Bruyn and Alonso 2012). Destinations have to be attractive for visitors and residents, as well as sustainable (economically, socially and environmentally), which involves coexistence among all stakeholders (Romão et al. 2018).

The changes in the sector brought about by ICTs and new players require destinations to modernise their governance procedures through the incorporation of decision-making, participation, transparency, creation and knowledge sharing (with stakeholders) systems, in line with what Buhalis and Amarangana (2013) called smart-tourism destinations. Using ICTs, DMOs can expand their influence on local governance beyond just serving tourist interests, by integrating local infrastructure and services to balance stakeholder interests, by promoting social innovation and building relationships of trust (Go and Trunfio 2011). However, the varying perceptions and interests of the different stakeholders can hinder the adoption of destination management systems (Sigala 2013). The introduction of networking capabilities that include all stakeholders will be positive and successful for destinations and give greater power and acceptance to the DMO within the destination (Volgger and Pechlaner 2014). Along with leadership, Boes et al. (2015) argued that innovation, social capital, human capital and entrepreneurs are the key elements in leveraging ICTs for the co-creation of value and tourist experiences and the competitiveness of destinations. Other authors have added different elements, such as the knowledge transfer process between all the organisations in a destination and even between destinations (Werner et al. 2015, Hardy et al. 2018) and, more recently, adaptive co-management, understood as a dynamic approach to governance that aims to create sustainable development in respect of natural resources, stakeholder participation in management and decision-making, and adaptive learning (i.e. learning-by-doing) (Islam et al. 2018). For example, to prepare for a massive growth in visitor numbers, the Omani government plans to implement an advanced visitor processing information system to connect data and services in different functional areas to make the entry process into the country efficient, flexible and safe.
Information management

ICTs have given destinations access to an unprecedented amount of aggregated data (big data), from very diverse sources; these can be grouped into three categories: (1) online user-generated content (UGC) (e.g. text, photos, videos); (2) device data from mobile technologies and the Internet of Things (IoT) (mobile roaming data, GPS data, Bluetooth data, Wi-Fi, RFID, sensors); and (3) transaction data by operations (e.g. web search data, webpage visiting data, online booking data) (Li et al. 2018).

DMOs should not be limited simply to collecting this data, but should also conduct analyses, identify key elements and prepare/obtain and publish reports that can assist decision-making processes (UNWTO 2019). UGC has transformed the tourist’s decision-making processes, experience and relationship with the destination (Law et al. 2014, Navío-Marco et al. 2018). The analysis of UGC can help destinations in their decision-making, based on a better knowledge of the tourist, and to design marketing strategies with more personalised messages, transparency and trust in their stakeholder relationships, and to improve the tourist experience and value co-creation (Del Vecchio et al. 2018). Similarly, it can help reduce the negative effects of over-tourism on local communities by exposing the causes of problems and proposing solutions (Sheivachman 2017b).

Through the IoT, using sensors, computational cores and telecommunication systems, destinations can gather real-time information on issues as diverse as traffic congestion, pollution, energy consumption and waste management, among others; in addition, through mobile devices (e.g. smartphones, tablets, smartwatches) they can identify and geolocate their targets, understand their spatial behaviour, make recommendations based on the environment and provide IoT-linked services (Zanella et al. 2014). Some hotel companies, such as Marriott and Hilton, already use the IoT to improve their clients’ experiences (Powell 2019). Finally, the destination can use transaction data to learn more about tourist behaviour, design marketing strategies, make predictions and ensure search engine optimisation (SEO) (Li et al. 2018). In this sense, brands and destinations should ensure tourists receive increased value in exchange for the information they provide (Fromm 2019). They must also understand that their role is not simply to attract tourists to destinations, but to create better experiences for them to enjoy during their stays (Sorrells 2019). For example, Amsterdam processes large volumes of data to analyse waiting times at major attractions, then sends mobile notifications to advise tourists about queues and suggest alternative venues, thus allowing them to better manage their time.

Big data poses destinations a real challenge, not for data collection, but for their real-time, efficient analysis and interpretation. All data types provide different information, which require various analytical techniques to solve probably dissimilar problems. To achieve this, some authors have suggested implementing technologies such as machine-learning tools and artificial intelligence (Del Vecchio et al. 2018, Allam and Dhunny 2019).

Integrated destination management systems

Developments in ICTs, the different online business models, the collaborative economy, content co-creation and data analysis tools, among others, raise questions about DMOs’ marketing management. Tourists employ these tools to access services and plan trips in an integrated way, using multiple devices (Sheivachman 2017a). At present, many DMOs promote their regions in traditional ways, attending fairs, making fam trips, advertising in traditional and online media, promoting their websites on social media and creating mobile applications. These actions provide destination information to residents, tourists and companies, but do not constitute proper knowledge management.
On the contrary, tourism distribution and social media companies have been much faster than DMOs in collecting, processing and managing the information that exists on the Internet about tourists and destinations. These companies have developed participatory processes to create multiple-information channels and to promote, distribute and market tourism products and services, outside the knowledge of the destination management entities.

Online search engines have today great ability to redirect user requests to the following types of intermediary:

- **Aggregator sites**, also known as metasearch engines. These enable comparisons of different tourist services and products. They usually belong to the largest distribution companies (e.g. Expedia, Priceline). These platforms redirect customers to the actual service provider, online travel agencies or product consolidators. They also allow price comparisons of products/services of companies in their own or other distribution groups. These systems, depending on product type, carry out a specific marketing function.

- **Online travel agencies (OTAs)**. Most of these depend on technology suppliers to produce their catalogue of services; therefore, their offer is led by the objectives of the big distribution companies, because they need to be part of a larger distribution group, or use the services of one of them, to make direct sales. This category can also include **Internet Distribution Systems (IDS)**, which allow group marketing of particular types of products, such as rural houses, hotels, etc. (e.g. booking.com); this business model is based on the customer making a direct payment to the hotel, instead of the agency.

- **Global distribution systems (GDSs)**. These use highly integrated technologies and hold large product inventories; the aforementioned groups hire their services for their marketing. These three categories (i.e. aggregators, OTAs and GDSs) represent super-intermediation in the distribution sector.

- **Sharing economy**. Technologies have facilitated the proliferation of platforms that promote experiences, rental of tourist accommodation, etc., which not only impact on destinations in ways previously discussed, but even prevent DMOs from knowing how many tourists will be in their destination on any given date, which, in some cases, could cause infrastructure overload, overcrowding of services and damage to the destination’s global image. This category of intermediary is problematic for destination management, because ever more services are being integrated into specific areas (e.g. accommodation, catering, transport) without consultation with DMOs.

Faced with this system of distribution and tourism hybridisation, DMOs are gradually beginning to attempt to use ICTs to improve, among other things, their knowledge of visitors, tourist flows, destination load capacity, return on advertising, etc. DMOs, therefore, need to implement integrated destination management systems (IDMS) to serve at both technical and operational levels (Figure 25.3). The current problem for most destinations lies in the lack of plans to introduce appropriate technological systems. If DMOs continue to use systems which are not fit for purpose, they will not be able to coordinate their actions. Thus, while they will be able to gather some information, they will have to continue to pay technology companies for data acquisition and processing.

An IDMS must have a technological architecture based on different subsystems that allow internal and external interoperability. The main subsystems of the IDMS will be information, marketing, decision-making support and integration (Guevara Plaza 2014). Each of these should be understood as a set of discrete modules that participate in different subsystems at the same time. IDMSs will enable efficient destination management, analysis of the traceability and
management of tourist flows, identification of demand profile (Leiva et al. 2013) and, above all, provide knowledge to guide tourism policy. To implement IDMSs, DMOs must top-down and bottom-up standardise their governance processes; there must be public–private and public–public alignment and collaboration, as only thus will it be possible to obtain the knowledge needed to manage the destination efficiently.

Conclusions

This chapter reviews recent literature in the field of eTourism to identify the main trends and challenges facing urban destinations. ICTs allow DMOs to generate knowledge through the collection and analysis of large amounts of data, and support their decision-making, governance, destination marketing, interaction with stakeholders and their real-time adaptation to their needs. In turn, tourists use technologies to improve their experiences, participate in the process of destination-image creation and interact socially. Thus, DMOs are faced with the great challenge of adopting and implementing technologies in a way that positively contributes to the creation of value for all destination stakeholders, in the context of today’s continuous technological innovation.

In addition, DMOs also face a great challenge related not only to the direct use they make of technologies, but also in terms of how stakeholders use them. The new sharing economy business models pose just some of the many challenges that destinations will most probably have to address in the near future. Ensuring that disruptive business models are compatible with sustainable development, and that the needs and rights of all stakeholders are respected, will be one of the future policy cornerstones of urban destinations.

This chapter, which does not purport to be a thorough review of the new technologies available to destinations, outlines the technological context and some of the main challenges facing
DMOs. It contributes by providing information that can help researchers and practitioners to establish research agendas and guide sectoral policies and design action plans to improve the competitiveness and development of urban destinations.

References


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