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## Handbook of Tourism Marketing

Book Chapter

### **Experience, Co-Creation and Technology: Issues, Challenges and Trends for Technology Enhanced Tourism Experiences**

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# **Experience, Co-Creation and Technology: Issues, Challenges and Trends for Technology Enhanced Tourism Experiences**

## **INTRODUCTION**

Consumers are increasingly striving for experiences. As products and services have become interchangeable and replicated, the search for unique, compelling and memorable experiences in the context of tourism consumption has become a key notion. In tourism marketing, the concept of the experience economy has long provided a valuable vehicle to design, stage and deliver experiences to consumers and gain competitive advantage. In the past years, the advent of two major shifts to the field of marketing has challenged the current understanding of tourism experiences. The concept of the experience economy has evolved, as consumers have become more active and empowered in playing a part in co-creating their own experiences in quest for personal growth (Prahalad and Ramaswamy 2004).

In addition to the development of the notion of co-creation, a second major change has taken place. With the advances in the field of technology, tourism experiences are not only co-created but more than ever technology-mediated (Tussyadiah and Fesenmaier 2009). The proliferation of recent information and communication technologies (ICTs) has had a great influence on society and people's everyday lives and has implied new challenges for the creation of experiences. With the dynamics of empowered consumers adopting emerging technologies for travel, traditional roles and processes of experiences creation have changed. These recent developments have led to the discussion of a new paradigm in the field of marketing, moving from Experience 1.0 (The Experience Economy) to the Experience 2.0 (Co-Creation Experiences), towards a new era of experiences, namely Experience 3.0 Technology Enhanced Tourism Experiences. A rethinking in marketing to reflect upon possible potentials, issues, challenges and future trends of tourism experiences is needed.

In this light, this chapter has the aim, by drawing upon experience, co-creation and technology literature, to provide a discussion of the issues, challenges and trends for the creation of Technology Enhanced Tourism Experiences. The chapter is divided into three main sections. The first part reviews the theoretical development of tourism experiences in the field of marketing, by briefly covering its definitional basis, historical evolution and emergence of latest concepts. The evolution in the experience economy, from the staging of experiences for the consumer to co-creating experiences with the consumer is discussed subsequently. The second part reviews the dynamic technological advances, with particular emphasis on the mobile sector, and provides new insights into their role in enhancing the co-creation of tourism experiences. The section highlights a paradigm shift in marketing and introduces the concept of Technology Enhanced Tourism Experiences. It outlines how tourism organisations can exploit the full potential of the plethora of ICTs to enhance the tourism experience co-creation process throughout all stages of the travel. The third and final part of this chapter discusses practical implications of this development for tourism marketing and provides an outlook on the future agenda for tourism marketing research.

## TOURISM EXPERIENCES: THEORETICAL DEVELOPMENTS

### Definitions of Tourism Experiences

What are Technology Enhanced Tourism Experiences? To answer this question for the purpose of this chapter, as the underlying concept, it is crucial to start with understanding the origins and the evolution of the notion of tourism experiences. Experience, firstly noted in the 1960s, has been defined as a vague and highly ambiguous term, which encompasses a specific occurrence that a person would have in everyday life. In the domain of marketing, the notion of experiences emerged with Holbrook and Hirschman (1982) seminal work postulating that consumer behaviour is not mere information processing but constitutes an active engagement in an emotional consumption experience. Succeeding this revolution, experiences have become a key concept in numerous fields including consumer behaviour, marketing and the experience economy. In the specific context of tourism, experiences have initially been portrayed as a quest for novelty and a reversal of everyday life (Cohen 1979). These early attempts were followed by a stream of literature focusing on capturing single elements, typologies, dimensions and chronological stages to develop a more holistic understanding of the tourism experience construct (Killian 1992, Otto and Ritchie 1996). Despite the numerous approaches having integrated perspectives from different social sciences, there is no consensus to date on a single definition of the tourism experience. Instead, it needs to be recognised in its full complexity with various influences, stages, elements, outcomes and types, all shaping and contributing to its current understanding (Jennings et al. 2009).

Experiences have always played a primary role in both tourism research and practice. The ongoing theoretical progress in the area underpins its importance and unabated relevance. In recent years, the study of experiences has received a revived interest, which is reflected in the amount of state-of-the-art literature discussing the concept (e.g. Cutler and Carmichael 2010, Morgan et al. 2010, Darmer and Sundbo 2008, Tung and Ritchie 2011, McCabe et al. 2012). With the tourism industry being subject to constant change, the nature of experiences is evolving alike, requiring new ways for understanding the design and the creation of successful experiences. For tourism marketing it is paramount to appraise the key developments forming the theoretical and practical understanding to date as well as to capture the latest changes, trends and challenges. For this purpose, the subsequent section provides a progress of *experience generations* that both encompasses a synthesis of the major theoretical milestones of the past and sheds light on some of the latest advances in the area.

### Experience 1.0: The Experience Economy

In the course of the past decades, society has undergone several fundamental shifts. People have abandoned the idea of buying simple products and services and started to seek experiences by consuming products and services instead (Morgan et al. 2010). In the 1990s, this growing trend led to the emergence of a number of different key concepts, including the dream society (Jensen 1999), the entertainment economy (Wolf 1999) and the experience economy (Pine and Gilmore 1999). Pine and Gilmore (1999), in coining the renowned term experience economy, provided one of the most seminal contributions marking a new era in marketing. Their core proposition is the consumers' pursuit of memorable experiences in the context of consumption and the progression of economic value. In a market characterised by globalisation, deregulation, advances in technologies and intensified competition, companies were forced to find new ways to differentiate their offers (Prahalad and Ramaswamy 2004).

The experience economy hit the zeitgeist of the time as a key instrument to yield differentiation, added value and competitive advantage. In practice, the principal idea for businesses was to no longer compete in terms of price but in terms of the distinctive value of the experience provided. For the years to follow, the experience economy has provided an unprecedented guide for strategic staging, managing and delivering experiences to consumers among a variety of contexts and industries. Particularly fostered by the adoption of emerging technologies, such as interactive games, online spaces and virtual reality, it was possible to meet the demand and create ever-more immersive consumer experiences (Pine and Gilmore 1998). Despite its perpetual popularity in both marketing theory and practice, the experience economy has however received critique due to its capitalist thinking (Boswijk et al. 2007) and the company's prominent role in initiating and producing experiences (Binkhorst et al. 2010).

### Experience 2.0: Co-Creation Experiences

With an evolution in society, characterised by consumers being active, powerful and connected, thanks to social information and communication technologies, there has been a transformation in the traditional company-consumer power relationship (Ramaswamy 2009). Subsequently, the orchestrated design of experiences has been considered no longer suitable to reflect the needs, wants and roles of contemporary consumers. With technologies allowing for multiple stakeholders to be connected more than ever before, the consumer has assumed a much bigger role as an active prosumer of the experience. In recognising this change, Prahalad and Ramaswamy (2004) propose a balance between companies and consumers as equal partners in co-creating the experience. This milestone has advanced the notion of the experience economy and introduced its successor generation. Co-creation represents a new paradigm for marketing. In widely replacing the pre-existing service-dominant views it has marked the beginning of a novel understanding of *how* and *by whom* services and experiences are created. The consumer has become the central element in both the experience production and consumption process, which implied that the first point of interaction is no longer to be found at the end of the value chain. Rather, it is framed as a collective and collaborative process of interactions between individuals and companies. Co-creation manifests itself as a convergence of production and consumption and represents an encounter in which consumer experiences are co-created and unique value is extracted (Prahalad and Ramaswamy, 2004).

The notion of value creation *with* the consumer rather than *for* the consumer has been particularly advanced by Vargo and Lusch (2004) by introducing the concept of value-in-use in service dominant logic (S-D logic). Whilst historically value has always been co-produced, it was viewed as a give and get dichotomy of benefits and sacrifices (Zeithaml et al. 1988), neglecting the role of the consumer in the co-creation of value (Sandström et al. 2008). Value however is not inherently existent, but for value to emerge, the experience needs to be co-created by the consumer. In ascribing the consumer the role of a collaborator, this perspective highlights two main arguments suggesting that it a) involves the consumer's participation in the creation of the core offering itself and b) 'value can only be created with and determined by the user in the 'consumption' process and through use' (Vargo and Lusch 2006: 284). Accordingly, this argument links back to the earlier raised criticism of the experience economy, i.e. that experiences cannot be simply designed and delivered. What can be created instead are the necessary prerequisites and a value proposition, as an intermediary connection of companies towards consumers generating their own value (Vargo et al. 2008). For marketing, the opportunities subsequently lie in recognising this fundamental shift and adapting the experience and value creation to these new assumptions. The locus of experience co-creation is to acknowledge the tourist as the central point embodying multiple roles as a) the

consumer of the service and experience, b) the co-creator of the experience and value, c) the co-creator of the experience space and d) the extractor and judge of the value at the same time.

The key principle therefore is to recognise the individual tourist as the dynamic hub, around which companies, stakeholders and other consumers orbit. In advancing the theoretical argument, recent literature suggests a myriad of possibilities of interactions, as consumers not only create with companies but also among each other (Baron and Harris 2010, Baron and Warnaby 2011, Huang and Hsu 2010). Organisations thus need to nurture an environment that facilitates not only its interactions *with* consumers (B2C), but allows for interactions *among* consumers and consumer communities (C2C). Accordingly, the tourism industry has unprecedented opportunities to facilitate co-created experiences and value on multiple levels of engagement and spaces. As consumers are in a constant search for experiences, co-creation represents a unique source of added value, innovation and competitive advantage (Shaw et al. 2011). While it is still fairly novel, Neuhofer et al. (2012) however urge that the tourism industry needs to strategically innovate and identify new sources to add value to co-creation experiences by means of instrumentalising technologies. With a plethora of ICTs available, consumers are always connected, which unfolds new possibilities for tourists to proactively co-create experiences and value in every step of the consumption. The co-creation environment must therefore embrace the potential brought by emerging ICTs (van Limburg 2012). This chapter, in having reviewed the developments until the point of co-creation, now turns to introducing technologies as a strategic means for the creation of Technology Enhanced Tourism Experiences, marking a novel era for tourism marketing.

### EXPERIENCE 3.0: TECHNOLOGY ENHANCED TOURISM EXPERIENCES – A NEW PARADIGM FOR TOURISM MARKETING

In recent years it has become evident that consumer empowerment and co-creation have been particularly fostered by one factor, namely technology. ICTs have caused a drastic impact by changing not only society and industries but by transforming the nature of service and experience provision. In light of this evolution, we need to understand how to exploit the full potential of ICTs, as an integral part for the creation of contemporary tourism experiences and value. The following section aims to shed light on this issue by conceptually integrating experience, co-creation and technology within the concept of Technology Enhanced Tourism Experiences. For this purpose, it assesses the most recent developments of ICTs within the tourism industry. While reviewing emerging technologies, such as the Web 2.0, social media and a range of social networking sites (*covered in Chapter XX of this book*), this chapter places particular emphasis on mobile technologies for the creation of tourism experiences.

It tackles the advancements of mobile services and the mobile tourist and its implications for tourism experiences, co-creation and value. In introducing the notion of Experiences 3.0: Technology Enhanced Tourism Experiences, the chapter discusses a paradigm shift in tourism marketing, the factors contributing towards this shift and offers a juxtaposition of the characteristics of Experiences 1.0/ 2.0/3.0 underlining this evolution. To allow for a better practical understanding, the chapter takes a closer look at novel experience creation processes with respect to the individuals involved (*who*) and the travel stages comprised (*where/when*). The discussion is underlined by a range of best-practice examples demonstrating its current realisation and highlighting its potential for future experience creation.

ICTs impact on the tourism industry

In the 21st century, society has been undergoing a number of fundamental changes. One of the most far-reaching shifts regards the adoption of technologies in people's everyday lives. The proliferation of ICTs, such as computers and the Internet gave rise to the knowledge-based economy, characterised by new ways in which information has become available. The importance of information and communication is not only prevalent in society but across various industries, including tourism. As a dynamically developing sector, the tourism industry has always been in the forefront of technology (Sheldon 1997). With information being the so-called lifeblood of the travel industry (Sheldon 1997), technologies have induced an information revolution that has caused entire tourism structures to change.

In allowing for better access and transparency of information (Hall 2005), ICTs have fostered an increasing consumer independence to access information online (Buhalis and Licata 2002) and at the same time induced a decreasing importance of traditional travel distributions. Due to the intangible, heterogeneous and perishable nature (Buhalis and Jun 2011), information and communication tools have become essential for presentation and description of information, prices, reviews and opinions online. Despite allowing for information, ICTs have become instrumental in interacting and engaging with consumers more effectively. In particular, the emergence of social consumer-oriented technologies have revolutionised tourism. The Internet and its successive advances in the Web 2.0 have represented one of the most critical technological developments over the past years (Dwivedi et al. 2012, Hays et al. 2012, Xiang and Gretzel 2010) by turning the Internet into an immense space of networking and collaboration (Sigala 2009). A wide range of social media, such as networking sites, blogs or wikis, have enabled consumers to interact, collaborate and share content, opinions and experiences to an unprecedented scale. In addition to the Web 2.0, a further development has implied one of the most significant changes to the tourism, namely mobile technologies.

### Mobile ICTs and mobile tourists

Mobility has been identified as one of the four mega trends next to globalisation, communication and virtuality, as identified by Egger and Buhalis (2008). The rapid technological development has led to a massive mobility in terms of the physical movement of products, services and people and at the same time encouraged the mobility and ubiquity of technological artifacts themselves (Gretzel and Jamal 2009). Society are characterised by a 'mobilities paradigm', reflected in the increasingly mobile nature of people, travel and tourism (Sheller and Urry 2006). People travel more often for work, study or leisure, rendering tourism a simple extension of the mobile everyday life. As a result, the advances in the mobile market are highly relevant to tourism, as one of the industries that can use the advantages of the mobile information medium most (Brown and Chalmer 2003).

Mobile devices function as 'transportable smart computers' that can be accessed almost unlimited (Wang et al. 2012) causing a transformation in travel. By being implemented on the move (Schmidt-Belz et al. 2002), stationary access has been widely replaced and information has become accessible anywhere and anytime (Balasubramanian et al. 2002). This resulted in a gradual revolution of tourist behaviour in shifting from a simple 'sit and search' to a dynamic 'roam and receive' behaviour (Pihlström 2008). Moreover, the integration of technological prerequisites, including GPS, compass and maps, gave rise to numerous services, such as location based services (LBS) context based services (CBS) and augmented reality (AR).

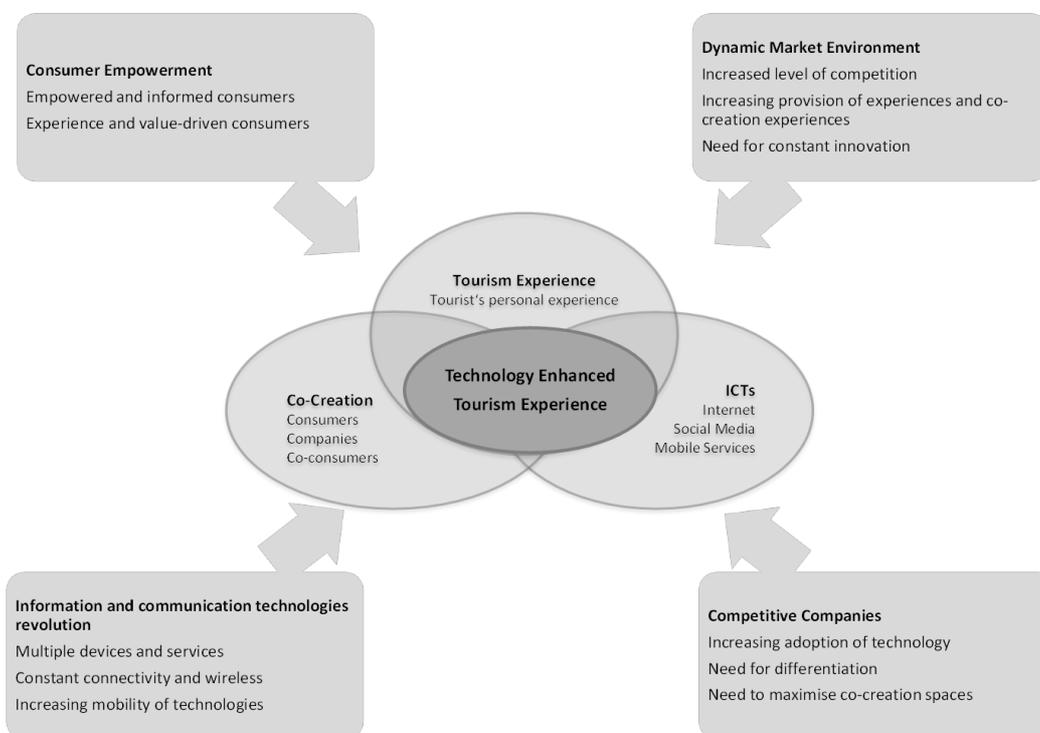
In allowing for geographical positioning and access to location and context relevant information, these services have become a key tool of the mobile 21st century and particularly the tourism industry (Egger and Jooss 2010). As tourists are connected to their mobile device,

traditional tourism services, such as information, entertainment, shopping or navigation have become amplified, as tourism providers and consumers are able to dynamically connect, exchange and engage through the mobile device online (Green 2002). Thus, with a plethora of mobile services at the tourist’s disposal which are accessible almost *anywhere* and *anytime*, it is now possible to connect with *anyone* at *any stage* of the travel, opening up new opportunities for multiplied levels of co-creation of experiences and value. Given the advancements of the Internet, the Web 2.0 and the mobile sector, ICTs represent the key instrument of change by transforming the way travel experiences are created. Due to their increasing mobility and ubiquitousness, ICTs are an essential part of the entire travel, as the mobile tourist is empowered to use ICTs to create participatory and personalised technology-enabled experiences. With these prospects in mind, this chapter now turns to introduce the latest experience generation, namely Technology Enhanced Tourism Experiences.

### Paradigm Shift towards Technology Enhanced Tourism Experiences

To understand this new generation of experiences for tourism marketing, it is crucial to capture the most fundamental changes, whereby it is not technology on functional terms but rather its implementation into experiences which is of relevance. Synthesising the developments within society, tourism and the field of technology, it appears that four main factors have contributed towards the paradigm shift of Technology-Enhanced Tourism Experiences. These include consumer empowerment, a dynamic market environment, information and communication technologies revolution and competitive companies. Figure 1 below highlights presents a graphical overview highlighting the key components and influences which have been touched upon in this chapter so far.

Figure 1. Paradigm Shift towards Technology Enhanced Tourism Experiences



In its core Figure 1 represents three major components conceptually framing Technology-Enhanced Tourism Experiences. First, it constitutes the tourist’s personal subjective *experience*

(Larsen 2007) at the moment of value creation (Andersson 2007) occurring before, during and after the travel (Aho 2001). The second component is *co-creation* describing the process that tourism experiences and value are conjointly created between the tourist, the provider and co-consumers involved in the particular context of consumption (Prahalad and Ramaswamy 2004). The third component represents *ICTs*, which in different manifestations, such as the Internet, social media or mobile services, facilitate the co-creation of enhanced tourism experiences and value (Neuhofer et al. 2012).

Surrounding the inner circle, four factors were critical in allowing for an emergence of Technology-Enhanced Tourism Experiences. *Consumer empowerment* is characterised by the shift from passive to active consumers driven by their search for more meaningful experiences. With a dynamic *market environment*, characterised by increased competition, need for constant innovation and creation of compelling experiences, businesses are faced with ever-more competitiveness. In a response to this market force, companies have become highly *competitive* in order to reduce commodification and differentiate themselves by creating more valuable experiences and maximising the potential of co-creation. In this respect, *ICTs* have been suggested as key instrument to facilitate and enrich this process. By exploiting its full, companies have taken advantage of the range of services available to engage with consumers, not only online in the pre/post stage of travel, but due to the mobility of devices, on the move along every step of the journey.

Having outlined the elements framing Technology-Enhanced Tourism Experiences, it is equally important to take a closer inspection at the differences that makes this type distinct from previous experience generations. Table 1 presents the theoretical development of tourism experiences and offers an overview in juxtapositioning the advancements from Experience 1.0 (The Experience Economy), Experience 2.0 (Co-creation Experiences) to the latest paradigm of Experience 3.0 (Technology Enhanced Experiences). While prior experiences were characterised by company-focused approaches, we have now moved towards an active, participatory approach of experience creation. Facilitated by *ICTs*, experience have become multiplied in terms of consumer participation, engagement and spaces, resulting in a connected, rich and more personalised experience and value extraction.

Table 1.  
Comparison Evolution of Experiences

<b>Experience 1.0</b>	<b>Experience 2.0</b>	<b>Experience 3.0</b>
Passive provision	Active co-creation	Holistic technology enhanced co-creation
Physical staging	Physical co-creation	Physical and virtual co-creation
Experience on-site	Experience on-site	Extended experience in the pre-travel, on-site and post-travel stage
Company staging	Company engaging and co-creating	Company co-creating and technology-enhancing
Standardised, mass produced experience	Customised co-creation experience	Rich, personalised, connected, co-constructed experience

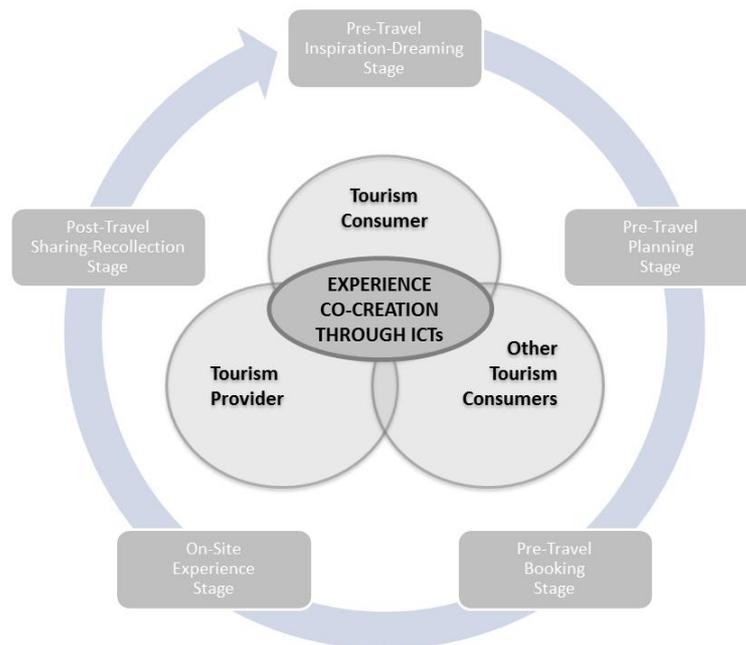
One-way delivery (company to consumer)	Two-way engagement (company and consumer)	Multi-level engagement (Company, consumer and surrounding connected network of providers, co-consumers, and social networks)
Innovation by transforming services into experiences	Innovation by transforming experiences into co-creation experiences	Innovation by transforming co-creation experiences into rich technology-enhanced experiences

Elaborating on the notion that ICTs constitute an integral part of tourism experiences, a change of perspective in marketing is needed. Co-creation needs to be open for the potential inherent in technology. To take the lead in creating more compelling experiences, it is therefore not sufficient for tourism marketing and organisations to only allow for co-creation but it is paramount that they uncover the potential of ICTs for experience creation (Neuhofer et al. 2012). Innovation is one of the biggest de-commoditisers to create something new, differentiated and valuable (Pine and Korn 2011). In this particular respect, this means to exploit one of most decisive resources of innovation, namely technology to generate Experience 3.0: Technology Enhanced Experiences offering a new point of departure for innovative experience creation. Only those making the shift to instrumentalise ICTs for enhanced co-creation will be able to increase their value proposition, reduce commodification and gain competitive advantage. The future success of companies will therefore lie with those who are able to realise technology-enhanced tourism experiences.

### Realising Technology Enhanced Tourism Experiences in Practice

To most effectively implement this concept in tourism practice, it is necessary to fully understand the processes involved in this endeavour on a practical level. For this purpose, this chapter continues by breaking down the experience creation process and taking a closer look at the single components involved. Figure 2 provides a graphical overview, representing the components involved in the dynamic multi-stage and multi-individual co-creation process of Technology Enhanced Tourism Experiences.

Figure 2.  
Co-Creation Process: Technology Enhanced Tourism Experiences



This chapter now seeks to assess the following elements in detail, namely:

- *Individuals*: who is involved in the co-creation of technology enhanced experiences
- *Stages*: where/when are technology enhanced experiences created

*Individuals: Tourists consumers, tourism providers and co-consumers*

Technology-enhanced experiences imply new ways of how consumers interact with companies and consumer communities. ICTs have fostered a transformation towards inter-connected and co-creating prosumers in a technology enabled experience environment. Recent literature confirms that the range of ICTs available support co-creation experiences in a number of different ways (Gretzel and Jamal 2009, Tussyadiah and Fesenmaier 2007, Tussyadiah and Fesenmaier 2009). The Internet, for instance, provides a valuable platform for the interaction of suppliers and consumers. It represents a multi-purpose medium that a) gives consumers more control, b) empowers them to establish closer relationships with the company and c) encourages them to actively co-create their experiences.

This active role of the tourist has been particularly fostered by the collective and collaborative space of Web 2.0 technologies. The Web 2.0 is one of the most relevant technological developments that reflect the paradigm shift towards Technology Enhanced Tourism Experiences. It enables consumers to become 'co-marketers, co-producers and co-designers of their service experiences by providing them a wide spectrum of value' (Sigala 2009: 1345). The plethora of social interaction tools in the Web 2.0, including blogs, videos, wikis, fora, chat rooms and podcasts, have encouraged individuals to generate content and share their experiences online at home or through mobile devices while being on the move and in turn co-create their experiences more than ever before (Ramaswamy 2009).

Due to the proliferation of the Internet, constant connectivity of mobile technologies, and engaging nature of social media tools, co-creation experiences between individuals are

maximised. In fact, there is evidence that interactions between individuals have ‘exploded on an unprecedented scale everywhere in the value creation system’ (Ramaswamy 2009: 17). This means that through ICTs, co-creation is no longer only occurring between companies and consumers (B2C) but increasingly among other consumers and the social network which enforces consumer-to-consumer (C2C) co-creation on all levels. As a result, with new forms of social technologies continuing to emerge over the next years, experience co-creation is expected to flourish even more. It will become crucial to tourism marketing to exploit the tools of the Web 2.0 to allow for more meaningful interrelations with tourists and among tourists by building platforms and spaces to interact, comment and share experiences.

#### *Stages: Multiple stages of the travel process*

By integrating ICTs, co-creation experiences are taken to a whole new level in terms of temporal and geographical dimensions of when/where experiences can be created. ICTs surround the tourist anywhere, at any time in any travel stage. This leads to unprecedented opportunities to co-create experiences everywhere along the value creation system, i.e., the whole customer journey. The tourism experience has been recognised as a multi-phase phenomenon in the past (Clawson and Ketch 1966, Craig-Smith and French 1994). However, ICTs enforce these dimensions by facilitating experience creation long before the actual service encounter, on-site and after the tourist’s return to his/her home environment (Fotis et al. 2011, Huang et al. 2010, Tussyadiah and Fesenmaier 2009). Thereby, ICTs are adopted for information search, comparison, decision making, travel planning, booking, communication, and sharing of experiences. Depending on the specific task, a wide range of tools is used to facilitate and enhance the experience (Buhalis and Law 2008, Gretzel et al. 2006), including the Internet, virtual communities or Second Life (Binkhorst and Den Dekker 2009), social networking platforms, blogs or microblogging, such as Twitter (Wang and Fesenmaier 2004), virtual worlds or social networking sites (Shaw et al. 2011), Facebook, YouTube or Wikipedia (Ramaswamy 2009). Businesses across all sectors of the travel and tourism industry therefore need to capture their own peculiarities and resources and assess where they can best implement technology to facilitate experience co-creation, not only on-site but in all stages of the travel.

*Pre-Travel Stage: Getting inspired, planning, decision-making, booking.* With the emergence of the Internet, social media, and virtual worlds, tourists are now empowered to experience tourism destinations before the physical travel. By using ICTs, the pre-travel phase has a high potential for enhancing co-creation distinctively. Tourists start dreaming, seek for inspiration and information and look for opinions and advice from others (Xiang 2011). The range of social media tools available, such as Facebook, Twitter, YouTube, TripAdvisor and more recently Pinterest, assist tourists to experience potential hotels, destinations and attractions prior travelling. In these online environments, some destinations, such as Sweden, Thailand and Puerto Rico have already successfully demonstrated co-creation by encouraging users to upload and share images, stories and videos with the travel community (Buhalis and Wagner 2013). This underlines the importance to not only to provide tourist consumers with information, but actively connect and engage to enhance their pre-holiday experience by co-creating with them in the available spaces online (Huang et al. 2010). Moreover, virtual realities, such as Second Life, by offering an immersive computer-generated tourism environment, have particularly fostered interaction and co-creation experiences through avatars online (Guttentag 2010, Kohler et al. 2011).

*On-Site Travel Stage: Experiencing the tourism destination.* The on-site travel phase is the most intensive phase with the highest potential for the co-creation of experience and value (Neuhofer et al. 2012). In this phase, different technologies can enhance the experience while moving through the physical space. Mobile technologies play a key role (Egger and Jooss 2010), by allowing for information retrieval anywhere and at any time (Wang et al. 2012).

Emerging mobile services, such as location based and context based services, gamification or augmented reality apps (Buhalis and Wagner 2013) all contribute to enhance the tourist’s place experience on-site (Tussyadiah and Zach 2011). It allows them to access information, media, booking sites and recommendations, which are relevant to the tourist’s current geographical location and context, including season, weather, time of the day, situation and preferences. Furthermore, the use of augmented reality applications enables tourists to overlay reality with virtual spatial information and points of interests to enhance the tourist’s entire travel experience in the physical world (Yovcheva et al. 2013).

The role of ICTs during the holiday is thus to support tourists in the physical environment and stay connected in the online space at the same time. By being interconnected to social networking sites, such as Facebook or Twitter, tourists can share, comment and co-create with friends, peers, tourism providers, and other consumers while being immersed in the tourism destination (Tussyadiah and Fesenmaier 2009). This means that tourists no longer only co-create with their physical surrounding, e.g. destination, hotels, attractions or other tourists but are now empowered to co-create with their entire network in a virtual co-creation space (Neuhofner et al. 2012). Thus, tourism providers need to make use of technologies in order to fully exploit co-creation with the tourist both in the physical and virtual space.

*Post-Travel Stage: Remembering, sharing, recollecting.* Besides their integration in the pre- and during travel stage, ICTs play an important role after the tourist’s return to the home environment. In the post-travel stage ICTs principally serve to engage, recollect, remember and share experiences with destinations, users worldwide and their social network alike (Fotis et al. 2011). For instance, tourists can post pictures on Facebook, share videos on YouTube or write reviews and recommendations on TripAdvisor, which provides major opportunities for destinations to engage, build trust and more long-lasting relationships (Buhalis and Wagner 2013).

It is evident that by integrating ICTs, tourism providers, tourists and other consumers are able to co-create experiences and value throughout all stages of travel, including the pre-travel inspiration, planning, booking stages, during the on-site destination stage and in the post-travel recollection stage. Mobile technologies particularly benefit tourists to be constantly connected and co-create experiences and value with a multiplicity of individuals and places. In this vein, Technology Enhanced Tourism Experiences can be considered a new paradigm for marketing that maximises levels of engagement and co-creation with multiple individuals in physical, online and virtual spaces throughout all stages of travel. In the field of tourism marketing, ICTs will be the decisive elements for differentiation, innovation and future competitiveness of experiences. In order for marketers to develop a better understanding of how to create this new type of experiences, insights can be gained by looking how these experiences are currently realised across the tourism industry. For this purpose, Table 2 provides an overview of a number of best-practice industry examples from which marketers could learn how to successfully create Technology Enhanced Tourism Experiences in practice.

Table 2.

Industry Examples Technology Enhanced Tourism Experiences

Industry Examples	Technology Enhanced Tourism Experience
<b>Hospitality Experiences</b>	
Inamo Restaurant London	Enhanced dining experience through eTable technology
Sol Melia Hotels	Enhanced guest experience through social media person-to-person interaction between staff and guests
<b>Destination Experiences</b>	

Visit Britain	Enhanced co-creation and engagement; mobile, user-generated application Love UK;
Thailand	Enhanced pre-destination experience through websites featuring videos, images and user-generated stories
New Zealand	Enhanced pre-travel experience through interactive trip planner with integrated maps, price range and activities
Hong Kong	Enhanced destination navigation through augmented reality applications for more space information
<b>Cruise Experience</b>	
Royal Caribbean	Enhanced on-board experience through digital signage to get directions, restaurant options, events, guest service etc.
Norwegian	Enhanced cruise experience through Norwegian iConcierge app to make reservations and check activities and communicate with other smart phone users
<b>Airline Experiences</b>	
British Airways	Enhanced in-flight customer experience through mobile technology use for cabin crew
KLM	Enhanced co-creation through social media engagement; facilitate pre-travel C2C co-creation through social seating programme

In outlining these diverse use scenarios of organisations from a variety of industries, including the tourism, hospitality, cruise or aviation sector, it becomes evident that not one single but a whole spectrum of Technology Enhanced Tourism Experiences can be created. Whether it is co-creation with consumers through social media engagement (Visit Britain), interactive travel planners and platforms (Thailand, New Zealand) or the facilitation of customer-to-customer co-creation (KLM), the potential use applications for ICTs are manifold. Whatever type of experience is created, the industry needs to follow the underlying principles, which are a) to put the tourist consumer and his/her needs first, b) allow for an active involvement in the co-creation process and c) understand, based on the particularities of the sector, how to implement ICTs to enhance this process best.

## CONCLUSIONS AND OUTLOOK ON THE FUTURE

The developments of experiences, consumer co-creation and technologies have caused a significant impact on tourism marketing in offering both unprecedented opportunities and at the same times rising challenges for experience creation in the future. This chapter had the aim to critically reflect upon the advances up to date and discuss a paradigm shift towards the creation of Technology Enhanced Tourism Experiences. It has first provided a review of the theoretical developments of experiences and discussed that the biggest challenge, and at the same time, opportunity is to abandon dated company-led experience creation approaches and keep up with the current movement towards consumer empowerment and emergences in the field of technology. To do so, tourism marketing will need to adapt to a) the changing nature of experiences, b) new implications for co-creation, and c) the need to exploit the potential of technologies for the enhancement of experiences. To put the changed paradigm into practice, it is necessary for marketers to consider collaboration with consumers and use of ICTs as the key to a successful creation of innovative experiences, added value and competitive advantage.

Being on the forefront of technology in a dynamic tourism environment thus means to capture cutting-edge technologies and pioneer in using them as tools for innovation and strategic competitive advantage in the marketing and management of experiences. As the understanding and implementation of co-creation in tourism (Binkhorst and Den Dekker 2009), let alone the realisation of Technology Enhanced Tourism Experiences is still in its infancy (Neuhofer et al. 2012), there will be great potential in this area in the near future. With emerging technologies and the dynamics of the tourism industry, tourism experiences are equally exposed to constant change, which renders the evolution of tourism experiences far from completed. It will be an ongoing and transformational process with new opportunities for experiences unfolding over the coming years. With continuous innovations in the IT sector, we can foresee opportunities in social media engagement and the role of real time service delivery, location and context based services, augmented reality applications and social gaming. Thus, research is never-ending and continuous efforts in exploring new and reappraising the existing understanding of tourism experiences are needed. Subsequently, this chapter concludes by setting out an agenda for tourism practice and research alike to highlight the need to conceptually and practically advance knowledge of innovating and creating competitive experiences.

For tourism marketing and management, numerous practical implications become evident. It is necessary to constantly monitor current trends and emerging technologies in order to explore the potential of their implementation for the enhancement of tourism experiences. In doing so, it is paramount for marketers to create strategic innovations by using the latest technologies available to maximise co-creation, create added value with consumers and generate competitive advantage. By using social technologies, such as social media, interactive platforms or mobile applications, there is great potential to intensify the levels of co-creation and value extraction and create fully enhanced experiences throughout multiple touch points and stages, including pre/during/post stage of travel. Future research on multiple levels is needed to advance our understanding of tourism experience creation. For instance, company-centric studies are required to investigate provider and stakeholder involvement in the facilitation and co-creation of successful technology enhanced experiences. To complement this perspective, studies focusing on the consumer are essential in better understanding the tourists' roles in, needs and perceptions regarding experiences. Research investigating value perspectives needs to be encouraged to understand how value propositions can be maximised through the use of ICTs. Moreover, research, in exploring these current issues and challenges, should exploit the potential of technology as a research instrument, by using online, virtual and mobile spaces and applying technology-led methods to develop a better understanding of Technology Enhanced Tourism Experiences. While these recommendations only provide a snapshot of the status-quo, many questions undoubtedly remain open and much more research is needed for understanding future developments in the creation of experiences in tourism marketing theory and practice.

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