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The notion of creating rich and memorable experiences for consumers constitutes a prevalent concept in the tourism industry. With the proliferation of destination choices and increasing competition, it has become critical for destinations to find innovative ways to differentiate their products and create experiences that provide distinct value for the tourist. However, currently two major paradigm shifts are drastically changing the nature of experiences, the understanding of which is crucial for destinations to create successful experiences in the future. Experiences are transforming as (a) consumers now play an active part in co-creating their own experiences and (b) technology is increasingly mediating experiences. Despite the amount of literature recognising the impact of technology on experiences, a holistic conceptualisation of this change is missing. This paper thus raises the need to conflate the two-fold paradigm shift and calls for new reflections on the creation of experiences. The aim is to explore technology as a source of innovation to co-create enhanced destination experiences. The paper contributes on three levels: by introducing and conceptualising a new experience creation paradigm entitled Technology Enhanced Destination Experiences, by proposing an extended destination experience co-creation space in the pre/during/post phases of travel and by discussing managerial implications of this development for the future creation and management of experiences in a destination context.

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Conceptualising
Technology Enhanced Destination Experiences

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ABSTRACT

The notion of creating rich and memorable experiences for consumers constitutes a prevalent concept in the tourism industry. With the proliferation of destination choices and increasing competition, it has become critical for destinations to find innovative ways to differentiate their products and create experiences that provide distinct value for the tourist. However, currently two major paradigm shifts are drastically changing the nature of experiences, the understanding of which is crucial for destinations to create successful experiences in the future. Experiences are transforming as a) consumers now play an active part in co-creating their own experiences and b) technology is increasingly mediating experiences. Despite the amount of literature recognising the impact of technology on experiences, there is evidence for a major lack of a holistic conceptualisation of this change. This paper thus raises the need to conflate the two-fold paradigm shift and calls for new reflections on creation of experiences. The aim is to explore technology as a source of innovation to co-create enhanced destination experiences. The paper contributes on three levels; by introducing and conceptualising a new experience creation paradigm entitled Technology Enhanced Destination Experiences, by proposing an extended destination experience co-creation space in the pre/during/post phases of travel and by discussing managerial implications of this development for the future creation and management of experiences in a destination context.

Key Words: Destination; marketing; experience; co-creation; information and communication technologies;
1. INTRODUCTION

Destinations are considered as the core of the travel and tourism industry (Fyall & Leask, 2007). A destination constitutes an amalgam of tourism products and services, which conjointly provide an integrated experience to tourist consumers and form an entity under the umbrella of a destination (Buhalis, 2000). They are also portrayed as a unit of action (Saraniemi & Kylänen, 2011) in which different individuals, stakeholders, and parties involved collaboratively deliver the destination product (Fyall, Garrod & Tosun, 2006). Due to their complexity and multi-elemental structure, destination marketing and management constitute a challenging endeavour (Buhalis, 2000), as destinations are one of the most difficult products to manage and market (Fyall & Leask, 2007). As the tourism industry is becoming increasingly competitive, destinations seek ways to advance their market position and sustainability (Ritchie & Crouch, 2003), as even more challenges for destination marketing and management will appear in the coming decade. Destination marketing organisations (DMOs) play a key role in the marketing of a tourism destination (Blain, Levy & Ritchie, 2005). With a magnitude of tourism locations and attractions on offer, all organised to target tourist consumers, DMOs are faced with intensified competition (Stamboulis & Skayannis, 2003). Therefore, Hudson and Ritchie (2009) suggest that differentiation is key, as the tangible and intangible attributes of a destination, such as scenery, attractions, heritage and local people are no longer sufficient to distinguish from destinations competing with similar assets. Hence, with the proliferation of destination choices (Buhalis, 2000), DMOs need to find means to differentiate themselves, attract consumers and offer distinct value.

In this regard, Morgan, Elbe and de Esteban Curiel (2009) emphasise the importance of the experience economy concept within the marketing and management of destinations. Experiences have been utilised as a popular construct in destination positioning (Oh, Fiore & Jeoung, 2007). In a market where global competition has turned products and services into commodities, competitive advantage could only be gained by reducing the substitutability of offers (Hudson & Ritchie, 2009) and providing consumers with unique and memorable experiences (Morgan, Lugosi & Ritchie, 2010). However, with the growth of the experience economy, Pine and Gilmore (1999) emphasise that only those providing compelling and rich experiences will be able to remain in the market. Destinations have to find innovative ways to create desirable experiences for the tourist (Morgan et al., 2009). One critical way for destinations of doing so is to understand the latest developments and changes in the area of experience creation.

Two major paradigm shifts have been challenging the current understanding of the tourism experience. First, the traditional experience economy has been increasingly replaced by the notion of experience co-creation, which recognises active consumers co-creating their experiences in a quest for personal growth and value (Prahalad & Ramaswamy, 2004a). Second, more recently, there has been evidence that tourism experiences are not only co-created but increasingly technology-mediated (Tussyadiah & Fesenmaier, 2009), which enables tourists to create richer experiences (Gretzel & Jamal, 2009) and empowers them to co-create their own experiences (Prahalad & Ramaswamy, 2004a). With the dynamics of empowered consumers and proliferating technologies, traditional roles, structures and processes of destinations creating experiences have changed. Nevertheless, existing literature seems to have insufficiently addressed these changes and scholars testify a major gap in the understanding of the role of technology inherent in the tourism experience (Beeton, Bowen & Santos, 2006; Tussyadiah & Fesenmaier, 2007). This paper thus raises the need to combine this two-fold paradigm shift and calls for new reflections on the creation and management of experiences in a destination context, which are determined by:

1. A shift from passively consuming to actively engaged tourists co-creating their own experiences
2. A shift towards using technology to co-create enhanced experiences with tourist consumers

To that end, this paper aims to contribute by exploring the transformational impact of technology on experience co-creation and developing a holistic conceptualisation of a new destination experience concept entitled Technology Enhanced Destination Experiences. The paper first discusses the evolution in the experience economy, from the staging of experiences for the consumer to co-creating experiences with the consumer. Second, a review of the dynamic advances of technology in the tourism experience will provide new insights into understanding the role information and communication technologies play in the co-creation of experiences. The paper concludes by presenting the integrated concept of Technology Enhanced Destination Experiences and discussing managerial implications of this development for the future creation and management of experiences in a destination context.
2. THEORETICAL BACKGROUND

2.1. Tourism Experience Economy

Experiences have always constituted an important notion in both research and practice (Uriely, 2005). This has been reflected in the great body of literature (MacCannell, 1973; Csikszentmihalyi, 1975; Cohen, 1979; Mannell & Iso-Ahola, 1987; Ryan, 1997), which established the theoretical context of the experience concept. The term experience, originally noted in the 1960s, covers a multiplicity of definitions (Moscardo, 2009). Traditionally, experience has been defined as a personal occurrence with highly emotional significance obtained from the consumption of products and services (Holbrook & Hirschman, 1982). In the specific context of tourism, early conceptual delimitations of tourism experiences postulated the need for differentiation due to their distinctiveness from mundane, everyday life experiences (MacCannell, 1973; Turner & Ash, 1975; Cohen, 1979). Drawing from an abundance of definitional attempts, the tourism experience can be defined, for instance, as a sensation resulting from interaction (Gupta & Vajic, 2000), as an outcome of participation within a social context (Lewis & Chambers, 2000), or the moment of value creation when tourism production and consumption meet (Andersson, 2007). Thereby, the individual’ emotional, physical, intellectual and spiritual engagement in the experience (Mossberg, 2007) is significant enough to be translated into long-term memory (Larsen, 2007).

Despite the fact that there exists a plethora of definitions in numerous scientific fields (Walls, Okumus, Wang & Kwan, 2011), a general consensus in literature is lacking and the exact definition of an experience remains elusive (Jennings et al., 2009). Nonetheless, common agreement exists that the experience concept is key to understanding consumer behaviour (Addis & Holbrook, 2001) and represents a fundamental concept in marketing (Holbrook & Hirschman, 1982) and the experience economy (Pine & Gilmore, 1999). At the beginning of the 21st century, tourism experiences have received renewed attention which is manifested in state-of-the-art literature (Cutler & Carmichael, 2010; Gouthro, 2010; Morgan et al., 2010; Sharpley & Stone, 2010; Kim, Ritchie & McCormick, 2011; Tung & Ritchie, 2011), attesting the perpetual interest in and unabated relevance of the tourism experience concept (Quan & Wang, 2004; Morgan et al., 2010).

Society has undergone a profound shift over the past decades, as people have abandoned the idea of buying products and services but rather seek to buy experiences gained from the consumption of products and services (Morgan et al., 2010). At the turn of the 21st century, this shift has led to the contemporaneous emergence of various notions, labelled as the dream society (Jensen, 1999), the entertainment economy (Wolf, 1999), the experience economy (Pine & Gilmore, 1999), and creative tourism (Richards & Raymond, 2000). Pine and Gilmore (1999) with their seminal contribution shaped the prevailing term “experience economy”, determining the underlying idea of experiences obtained by the consumption of products and services. The managerial interest in the experience economy was particularly triggered by the importance of delivering experiences, as conventional products and services have become replicated, interchangeable, and commoditised (Morgan et al., 2010). In the present market, characterised by increasing globalisation, deregulation and convergence of industries and technologies, companies have been attempting to differentiate their offers (Binkhorst & Den Dekker, 2009). The idea of providing consumers with unique and memorable experiences (Pine & Gilmore, 1999) and thereby creating added value for them (Grönoo & Kristensson, 2000), was proposed as the key to competitive advantage and success.

Pine and Gilmore (1999) conceptualised the progression of economic value, depicting the transformation from the production of commodities and goods, provision of services to the staging of experiences. Experiences represent the ultimate objective in the ladder; while commodities are fungible, goods tangible and services intangible, experiences are memorable. The progression of value is to stage experiences, whereby ‘staging experiences is not about entertaining customers; it’s about engaging them’ (Pine & Gilmore, 1999, p.30). Therefore, marketers need to create staged events that engage individuals in a personal and memorable way (Arnould, Price & Zinkhan, 2002). As a result, Pine and Gilmore (1999) emphasise that companies do not compete in terms of market price but rather in terms of the distinctive value of an experience provided. With consumers striving for high value and their willingness to pay a high price for obtaining great value, the strategic production of experiences has become a worthwhile concept for businesses (Darmer & Sundbo, 2008).

2.2. Shift towards Experience Co-Creation

Binkhorst and Den Dekker (2009) point out that despite its popularity, the experience economy theory has received a considerable amount of criticism since its proposition in the late 1990s. The creation of experiences has traditionally been treated as a one-directed approach, meaning that experiences are created by the company...
for the consumer. The company has thereby been regarded as the focal point of the experience production with the economic interest of how to increase the turnover by selling experiences as de-materialised commodities (Stamboulis & Skayannis, 2003; Darmer & Sundbo, 2008). This merely business-oriented idea of staging experiences is however strongly inspired by the industrialisation and determined by economic values and capitalist thinking (Boswijk, Thijssen & Peelen, 2007). With a radical shift in the company-consumer relationship taking place, these traditional views have been increasingly challenged (Prahalad & Ramaswamy, 2004a). The staging of experiences is now considered to be too commercial and superficial, and thus not appropriate to reflect the needs and wants of contemporary consumers (Boswijk et al., 2007).

In recent years, society has undergone a transformation towards the centrivity of individuals and their human experiences (Prahalad & Ramaswamy, 2004a). Consumers have become increasingly informed, active and powerful which has induced a major change in the industrial system (Ramaswamy, 2009a). This has led to the emergence of a “prosumer society”, reflecting the notion of consumers being actively involved in both the process of consumption and production (Ritzer & Jurgenson, 2010). While the concept of prosupersion has existed for many years, it has particularly flourished through the social changes brought by the Internet and Web 2.0 (Ritzer & Jurgenson, 2010). With the empowerment of the Internet, consumers are no longer static market targets but now dictate the way they want to receive and respond to information (King, 2002). Hence, prosumers are encouraged more than ever before to play an active part in shaping the nature of their consumption through engaging in the production. Co-creation builds on this very principle and puts the focus back on consumers, their respective needs and wants and the question of how companies can meet these (Ramaswamy & Gouillart, 2008). This novel mindset has especially been brought forward by Prahalad and Ramaswamy (2004a), who ascribe a much bigger role to individuals as prosumers and co-creators of the experience. Instead of consuming staged experiences, consumers now strive for more authenticity and expect a balance between the experience stager and the freedom to co-create their own experiences (Binkhorst, 2006; Ramaswamy & Gouillart, 2008).

This has transformed the company-consumer relationship and has changed the understanding of how experiences are now created and consumed (Boswijk et al., 2007). In the experience co-creation mindset, the individual human being, rather than the company, is regarded as the starting point of the experience (Binkhorst & Den Dekker, 2009). In the traditional relation, the roles of companies and consumers in the production and consumption were distinct (Ramaswamy, 2011). As consumers have transformed into prosumers and co-creators of their experience, this simplistic consumption exchange process is challenged. The new market constitutes a collective, collaborative and dynamic forum of interaction between individuals, companies and consumer communities. In this space, the roles of consumers and companies converge as they engage in a mutual interaction in which the individual becomes the central element (Ramaswamy, 2011). Companies therefore need create a forum to enter into a dialogue with their consumers to co-create experiences and value (Binkhorst & Den Dekker, 2009). At the same time, it is crucial for companies to allow for an environment that facilitates not only its interactions with consumers, but also allows for interactions among consumers. A growing body of literature highlights that customer-to-customer interactions become an integral part of co-creating experiences and generating value (Gruen, Osnombekov & Czaplewski, 2007; Baron & Harris, 2010; Huang & Hsu, 2010).

These advances in the way how experiences are created and by whom underline the paradigm shift that has transformed the traditional understanding of experiences. With increasing dissatisfaction of researchers with existing, predominantly goods-centric and transaction-based models, co-creation provides an invaluable paradigm in the field of marketing which is reflected in the amount of literature discussing this novel idea (Prahalad & Ramaswamy, 2004a; Vargo & Lusch, 2004; Edvardsson, Enquist & Johnston, 2005; Payne, Storbacka & Frow, 2008; Ramaswamy & Gouillart, 2008; Binkhorst & Den Dekker, 2009; Ramaswamy, 2009a, 2009b; Huang & Hsu, 2010; Ramaswamy, 2011). In addition to co-creation determining the nature of contemporary experiences, currently, a second major factor appears to impact upon experiences, namely technology (Prahalad & Ramaswamy, 2004a).

**2.3. Impact of ICTs on the Experience**

One of the most far-reaching changes to society in the 21st century is the proliferation of information and communication technologies (ICTs). The technological advancements of the past years have not only had a great impact on society and people’s everyday lives (Crouch & Desforges, 2003), but have also determined the way various sectors, including the tourism industry, operate (Buhalis, 2003; Middleton, Fyall, Morgan & Ranchhod, 2009). As one of the fastest growing industries in the world, travel and tourism has always been at the forefront of technology adoption (Sheldon, 1997) and has taken advantage of the synergies between technology and tourism (Buhalis & Law, 2008). The role of ICTs in the tourism industry is multifarious. For instance, technology has been ascribed a key role in the operation, structure and strategies of tourism.
organisations (Buhalıs, 2003; Buhalıs & Law, 2008), a central element in the innovation of products, processes and management (Hjalager, 2010), and an enabler of opportunities for tourism organisations to attract and retain visitors (Werthner & Klein, 1999).

Considering this impact, it is unquestioned that the technological developments imply numerous challenges (Benckendorff, Moscardo & Murphy, 2005; Gretzel, Fesenmaier, Formica & O’Leary, 2006) and at the same time, offer great potential for its implementation in the present and future (Wang, Fesenmaier, Werthner & Wöber, 2010). The advent of technology has not only caused radical changes (Cetinkaya, 2009) but has revolutionised the very nature of the tourism industry. Its pervasive adoption throughout the industry has brought fundamental implications for the way travel is planned (Buhalıs & Law, 2008) and the tourism product is created and consumed (Prahalad & Ramaswamy, 2003; Stamboulis & Skayannis, 2003). This is particularly true for the case of tourism experiences. As early as 1998, Pine and Gilmore remarked that emerging technologies would generate new types of experiences via tools such as interactive games, chat rooms or virtual realities. Indeed, since their work in the 1990s, experiences have been profoundly affected by the plethora of ICTs.

As in many other industries, the arrival of the Internet with its multiple purposes inherent as source of information, user generated content and platform for interaction, has played a particularly critical role in changing the tourism industry (Buhalıs & Law, 2008; Schmallegger & Carson, 2008). It has fostered the new prosuming tourist, who is more knowledgeable and empowered in the search for experiences and extraordinary value (Buhalıs & Law, 2008). The subsequent emergence of the Web 2.0 and social media has implied even more drastic changes for the tourism industry by turning the Internet into an immense space of social networking and collaboration of users (Sigala, 2009). The Web 2.0 has been portrayed as ‘a set of economic, social, and technological trends that collectively form the basis for the next generation of the Internet – a more mature, distinctive medium characterised by user participation, openness, and network efforts’ (O'Reilly, 2006, p.4).

In this context, social media have gained immediate popularity, as ‘a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content’ (Kaplan & Haenlein, 2010, p.61). Recent studies describe the adoption and potential of social media in the tourism industry as enormous (Miguens, Baggio & Costa, 2008; Schmallegger & Carson, 2008; Fotis, Buhalıs & Rossides, 2011; Dwivedi, Yadav & Venkatesh, 2012; Hays, Page & Buhalıs, 2012). Besides the impact of the Web 2.0, the development of mobile technologies has caused one of the most significant changes to tourists experiencing travel. The advances of 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 & Chalmer, 2003; Umlauf, Pospischil, Niklfeld & Michlmayr, 2003). Due to their ubiquity, constant connectivity and access to information anywhere and anytime (Green, 2002), mobile technologies have led to a behavioural transformation of tourists from “sit and search” to “roam and receive” (Pihlström, 2008). Hence, Bouwman et al. (2012) claim that mobile services bring the Web even closer to consumers by enabling information retrieval anywhere at any time. Considering these developments, it is evident that ICTs have a major impact on consumer experiences (Kim & Ham, 2007; Law, Leung & Buhalıs, 2009) and particularly on tourism experiences, as confirmed by multiple studies in the past (Crouch & Desforges, 2003; Stamboulis & Skayannis, 2003; Tussyadiah & Fesenmaier, 2007; Tussyadiah & Fesenmaier, 2009).

Yet, it appears that most of them have only touched upon technology by recognising the impact and importance of technology or by exemplifying single scenarios of use in the context of the tourism experience (e.g. Prahalad & Ramaswamy, 2004a; Binkhorst & Den Dekker, 2009; Ramaswamy, 2009a). Darmer and Sundbo (2008) and Gretzel and Jamal (2009) however claim that ICTs will support new types of activities which will transform existing and lead to new types of tourism experiences. With the dynamics of ICTs changing creation and consumption of the tourism experience, destinations are thus facing a major paradigm shift (Buhalıs & Law, 2008). Therefore, Huang and Hsu (2010) argue that it is crucial to capture these changes, whereby it is not the technological development on functional terms per se but rather the integration of technology into the experiences which is of interest (Darmer & Sundbo, 2008). With technology in use, tourists have transformed from passive recipients to connected prosumers co-creating their experiences in a technology enabled destination environment (Prahalad & Ramaswamy, 2004a; Gretzel, Fesenmaier & O’Leary, 2006; Andersson, 2007). Therefore, it is the purpose of this paper to understand these dynamics, implied changes and underlying potential to introduce a new concept for the creation, marketing, and management of destinations experiences.
3. CONCEPTUALISING TECHNOLOGY ENHANCED DESTINATION EXPERIENCES

3.1. Co-creating Destination Experiences

In the context of destinations, marketing and management have mainly focused on targeting the products and services a destination has to offer to a mass market (King, 2002). Hitherto, DMOs have predominantly been operating in traditional processes, driven by political, governmental and regional interests to balance the needs of stakeholders (Buhais, 2000), while ignoring the needs and wants of consumers. Nevertheless, due to the proclaimed shift in the relationship between providers and consumers (Prahalad & Ramaswamy, 2004a), the dynamics of the market have changed. It is critical to overcome conventional strategies, avoid serial production of experiences and allow for more freedom and meaningful experiences in an equal relation between tourists and the destination (Richards & Raymond, 2000). With tourists being able to choose from a wide range of destinations competing worldwide, destination need new strategies to accommodate these changed conditions to create contemporary, compelling experiences.

Yet, King (2002) argues that despite common claims that more consumer-centric approaches have been adopted, most DMOs are still slow to adapt to these changed conditions. Until recently, tourism was dominated by a company-centric view in which tourists were allocated a passive role and neglected in the design and creation of experiences (Ek, Larsen, Hornskov & Mansfeldt, 2008). However, with consumers taking over the process of co-creation (Boswijk et al., 2007), destinations need to realise that conventional experience creation processes have become obsolete. As a result, the rules of the game have changed and new realities for destination marketing have emerged, which create a completely new point of departure upon which DMOs now need to act (King, 2002). Thus, for destinations to succeed it is critical to fully understand a) who is how involved in the co-creation of experiences and value, and b) where and how experiences can be co-created in the context of a destination.

The starting point for DMOs is to acknowledge the individual tourist as key to adding value to the experience (Binkhorst & Den Dekker, 2009). Tourism organisations need to abandon their outdated approaches of targeting a mass market, abdicate their role as the experience producer, and manage to involve tourists in co-creating the destination experiences instead (King, 2002). Destinations need to realise the creative potential of making tourists active participants in the destination setting. This implies that not only tourists are actively, dynamically and creatively involved in the experience but the destination itself needs to find creative ways to allow for such experiences to occur (Richards & Raymond, 2000). To fully embrace this dynamic, tourists therefore need to be recognised in multiple roles as co-producers of the experience (Prahalad & Ramaswamy, 2004a), co-creators of value (Ek et al., 2008; Payne et al., 2008), and co-constructors of the experience space (Mossberg, 2007). For the specific context of destinations, this implies that tourists do not only create their own experiences but become central in the creation of the overall tourist space, i.e. the destination, they are immersed in.

Tourists do not experience the destination space in isolation but rather interact with tourism suppliers, their friends and families and other co-consumers in a dynamic experience co-creation space. Thereby, co-creation of the destination space occurs when tourists are co-creating on a collective level through tourist practices, performances, events, activities or learning experiences they are participating in. Examples of co-creation practice include geocaching, an interactive co-creation experience in a destination space performed by co-consumers; or culinary trails and events across a destination which allow tourists to play an active part in the event and thereby become co-creators of the experience and the overall experience space themselves. In light of this development, Tung and Ritchie (2011, p.1369) underline that DMOs should ‘facilitate the development of an environment (i.e., the destination) that enhances the likelihood that tourists can create their own memorable tourism experiences’. As destinations can only create prerequisites for an experience, they need to facilitate a space that is attractive and compelling and allows for valuable experiences to be created (Prahalad & Ramaswamy, 2003). This space should constitute an interactive forum for multiple players, with the tourism consumer as the focal point of the experience, who co-creates with tourism suppliers and co-consumers the experience, value and space in the specific context of the destination, see Figure 1.
Facilitating the experience co-creation space is paramount for destinations to allow tourists to create experiences and in turn value, which is key to fostering growth and innovation, and unravel sources of competitive advantage (Shaw, Bailey & Williams, 2011). This is of particular importance to destinations, which by their very nature operate in a highly competitive market (Hudson & Ritchie, 2009). With the proliferation of destination choices (Buhalis, 2000), it is more important than ever before for DMOs to innovate by providing compelling experience and value propositions. For this reason, experience co-creation has been proposed as indispensable to developing a zone of differentiation and value creation (Ramaswamy & Gouillart, 2008).

Regardless, Pine and Gilmore (1999) warn that with experience propositions becoming multiplied, only those continuously creating innovative experiences will be able to remain in the market. As the concept of experience co-creation is gaining popularity in the tourism industry (Binkhorst & Den Dekker, 2009), it can be argued that co-creation represents the new benchmark of experience creation. Although still novel in thought and application, tourism businesses need to find more innovative ways to add value to co-creation in order to stand out from the competition. This is particularly essential for destinations which, due to the dynamic and fast changing nature of the tourism industry, must innovate at an accelerated pace (Zach, Gretzel & Xiang, 2010).

Beyond traditional co-creation, this paper posits that technology needs to be considered as the key instrument to innovate and enhance co-creation and thereby create richer experiences and add value for the consumer. Buhalis and Law (2008) state that technology is an integral element for the competitiveness of businesses in the tourism industry, which is supported by Cetinkaya (2009) and Zach et al. (2010) who affirm that the adoption of emerging ICTs provides a main source of competitive advantage. In line with van Limburg (2012), the co-creation space must be open for the opportunities brought by emerging technologies through which competitiveness by better co-creation of value can be achieved (Shaw et al., 2011). To take the lead in experience creation, DMOs need to not master co-creation, and additionally, realise the potential of technology as a strategic instrument to co-create enhanced destination experiences and distinct value.

### 3.2. Technology Enhanced Destination Experiences

ICTs become increasingly implemented in the co-creation of tourism experiences. As previously indicated, technology has drastically affected DMOs in the ways in which business is conducted and above all, how consumers interact with the organisation (Buhalis, 2003). The Internet in particular holds great potential as a vehicle for co-creation, as a facilitator that allows tourists to better communicate and interact (Buhalis & Law, 2008) and destinations to establish closer relationships with their consumers (Buhalis & Licata, 2002). Numerous studies (e.g. Tussyadiah & Fesenmaier, 2007; Binkhorst & Den Dekker, 2009; Gretzel & Jamal, 2009; Tussyadiah & Fesenmaier, 2009) attest that ICTs support experience co-creation in a number of different ways.

For instance, websites, portable city guides, travel guides, virtual life or hotel room enhancement (Binkhorst & Den Dekker, 2009) are all cutting-edge examples of technology enhancing the experience. From the variety of ICTs available, the Web 2.0 can be considered as one of the most relevant technological developments in relation to co-creation, as according to Sigala (2009, p.1345), it ‘enables online consumers to become co-
marketers, co-producers, and co-designers of their service experiences by providing them a wide spectrum of value’. The plethora of social interaction tools available on Web 2.0, including blogs, videos, wikis, fora, chat rooms or podcasts, encourage individuals to co-create their experiences with others more than ever before (Ramaswamy, 2009a). Dwivedi et al. (2012) highlight that particularly social media sites, such as Facebook, YouTube, Twitter or Flickr, enable DMOs and tourists to build a platform to interact, comment and share their experiences, and build a sense of experience community (Hays et al., 2012).

With new forms of ICTs emerging over the coming years, co-creation is expected to flourish even more (Etgar, 2008). Thus, the question is not whether technology impacts on the experience (Buhalis & Law, 2008; Law et al., 2009), but rather, how technology changes the destination experience and how to use its full potential to enhance the co-creation of destination experiences, generate added value and in turn competitive advantage. In order to act upon this change, DMOs need to understand the use of ICTs in experience co-creation. For this purpose, this paper suggests to compartmentalise the experience creation process to develop a detailed understanding of a) where and b) how to use technology alongside the different stages of travel to enhance the experience co-creation.

**Technology Enhanced Experience Co-Creation Space**

By integrating technology, this paper posits that experience co-creation is taken to a whole new dimension. Due to the increasing force of the Internet, ubiquitous connectivity of mobile technologies, and engaging nature of social media, there is now evidence that interactions between companies and individuals have ‘exploded on an unprecedented scale everywhere in the value creation system’ (Ramaswamy, 2009a, p.17). This means that ICTs, by accompanying the tourist with any device, anywhere, anytime, are dispersing interactions by introducing new possibilities to co-create experiences everywhere along the value creation system, i.e., the whole customer journey. The tourism experience has been widely represented as a multi-phase phenomenon in terms of its chronological or temporal nature (Clawson & Ketch, 1966; Arnould & Price, 1993; Craig-Smith & French, 1994). Hence, the experience is not restricted to a single service encounter on-site but consists of a pre, during and post travel stage (Stickdorn & Zehrer, 2009). For destinations this implies that the experience begins long before the actual encounter in the experience space, i.e. destination, and continues long after the return of the tourist to the home environment (Green, 2002; Gretzel, Fesenmaier, Formica, et al., 2006; Gretzel, Fesenmaier & O’Leary, 2006; Gretzel & Jamal, 2009; Tussyadiah & Fesenmaier, 2009; Huang, Backman & Backman, 2010; Fotis et al., 2011).

Technologies are central to the whole journey, as they accompany the tourist from the anticipatory stage, through the destination on-site, to the recollection phase (Gretzel & Jamal, 2009; Tussyadiah & Fesenmaier, 2009). In this process, ICTs support tourists throughout various activities, such as preliminary information search, comparison, decision making, travel planning, communication, retrieval of information and post-sharing of experiences. Depending on their respective needs, tourists employ a wide range of tools, such as websites, travel blogs, recommendation systems, virtual communities or mobile technologies to facilitate and enhance these actions (Gretzel, Fesenmaier & O’Leary, 2006; Buhalis & Law, 2008). With technology being present in all stages, the traditional experience co-creation space, as postulated by Prahalad and Ramaswamy (2004a), hence undergoes a significant change. Beyond the co-creation space on-site, ICTs unclose a new space in the pre- and post-travel stages, where the destination, tourism suppliers, tourists and networks of consumer communities interact, not only in a physical but also in a virtual experience co-creation space.

1. **Pre Travel: Virtual Experience Co-Creation**

According to Gretzel and Jamal (2009), the pre-phase is characterised as an actively involved and socially intense phase. Due to the emergence of the Internet, social media, and virtual worlds tourists are able to experience and assess a destination before their physical travel. Social media, such as Facebook, YouTube or TripAdvisor, allow individuals to experience the destination and live experiences of other consumers, using both their own social circles and unknown co-consumers. Moreover, virtual environments, among the most popular, Second Life, have become attractive platforms for destinations to represent products and services in a three-dimensional online world (Huang et al., 2010). The embodiment through avatars enables tourists to experience the destination in the pre- or post-phases of their holiday (Gretzel & Jamal, 2009). The pre-travel phase is crucial as tourists explore, seek inspiration and interact with the destination. Huang et al. (2010) thus emphasise the opportunities for destinations to use technology to facilitate immersive virtual environments in which they can co-create with consumers and thereby enhance their experiences already before their journey commences.

2. **On-site Destination: Physical and Virtual Experience Co-Creation**
The actual travel phase, often referred to as the on-site phase in the physical tourism destination, is determined by the tourist being on the move. Different technologies come into use while the tourist is on the move, in transit or at the destination. The increased mobility and availability of ICTs have particularly rendered mobile technologies key tools (Egger & Jooss, 2010), as these enable information retrieval anywhere and anytime (Balasubramanian, Peterson & Jarvenpaa, 2002). Mobile technologies, such as location based services, offer instant access to information, videos or recommendation sites relevant to the current location, which are crucial for destinations to connect, assist, and engage with the tourist in the online environment on-site (Green, 2002).

The connection to social media sites such as Twitter allows tourists to engage with the wider public in real time, share current conditions in the destination and raise particular demands, which destinations can address by co-creating with them virtually. Moreover, mobile devices such as smart phones allow tourists not only to take a photo for themselves but immediately share their experiences with others while experiencing them (Green, 2002). Destination experiences hence reach new levels of interaction. While being immersed in the physical destination setting, tourists not only co-create their experiences with their immediate surrounding but also engage with physically distant environments in which they share and interact with friends, peers, tourism providers, locals and other consumers. The on-site phase can thus be considered to be the most intriguing phase for DMOs, with multiple levels of engagement that allow destinations to co-create experiences with the tourist in the physical and virtual setting at the same time.

3. Post-Travel: Virtual Experience Co-Creation

In the post-travel stage, technologies help tourists enhance the experience through recollection and remembering previously undergone travel. Social media such as blogs or social networking sites play a critical part in encouraging tourists to interact and share their experiences online (Gretzel & Jamal, 2009). Tussyadiah and Fesenmaier (2009) argue that technologies that allow for sharing multimedia content such as photographs and videos, with others are of great importance. Likewise, travel review websites, such as TripAdvisor, play an important part for tourists by post-sharing their experiences, views, recommendations and suggestions with likeminded individuals (Gretzel, Yoo & Purifoy, 2007). The post-travel stage is therefore critical for destinations to engage with former tourists in order to co-create their lived experiences (Gretzel & Jamal, 2009). While reconstructing past experiences, this stage simultaneously demarcates the beginning of the dreaming stage of the next travel, where ideas and inspiration for future holiday destinations are gathered (Fotis et al., 2011).

**Conceptual Model: Technology Enhanced Destination Experiences**

ICTs have drastically changed the nature of the tourism experience by empowering co-creation and extending the space in which experiences can be co-created. Elaborating on the foregone discussion this paper proposes a novel and holistic conceptualisation of *Technology Enhanced Destination Experiences*, in Figure 2. The key contribution of this model lies in a) the recognition of an extended destination experience co-creation space (pre, during, post travel), b) the distinction of two levels of co-creation (physical and virtual co-creation) and c) multiple levels of engagement, i.e. the destination with the tourism consumer, tourism suppliers, the social network, and co-consumers.

![Fig. 2. Conceptual model technology enhanced destination experiences](image-url)
a) Extended Experience Co-Creation Space
This paper goes beyond the traditional understanding of co-creation, conceptualised as taking place on a marketplace within the physical destination space (Prahalad & Ramaswamy, 2004a). An extended experience co-creation space is proposed that also includes co-creation processes in the pre-travel and post-travel stages. Inversini and Buhalas (2009) affirm that with the advent of the Internet, geographical and cultural boundaries have continuously dissolved and have enabled human beings to experience tourism products and destinations without actually being in the place (Buhalas & Law, 2008). By using technology, experiences are no longer only created in the tourist space, but also in the context of everyday life, reflecting both the anticipatory and recollection stage of the tourist experience in the mundane environment (Tussyadiah & Fesenmaier, 2009). This has caused a major compression of space and time (Tussyadiah & Fesenmaier, 2009) and a blurring of boundaries between home and away (Uriely, 2005; Gretzel & Jamal, 2009). This de-differentiation leads to the recognition of an overall experience co-creation space by considering the pre- and post-travel stages as an extension of the on-site destination experience. As more dynamic views of time and space are needed in the tourist experience (Ek et al., 2008), this paper suggests that by using ICTs as a facilitator, DMOs now operate in an extended physical and virtual experience co-creation space.

b) Physical and Virtual Co-Creation
This conceptualisation suggests that there exists a virtual space not only in the pre-travel and post-travel stages but also in the on-site stage. With the adoption of mobile services, tourists are connected to virtual channels, which add a virtual layer to their physical movement in the destination. The on-site destination experience is hence no longer limited to engagement with the immediate physical surrounding. Rather, it involves an interaction with the virtual environment of the tourist, including a network of friends, tourism suppliers and co-consumers, who are all inter-connected and co-create the destination experience together. This implies great opportunities for DMOs to enhance on-site experiences in two ways. First, by engaging with tourists through virtual platforms, DMOs can identify potential tourists’ needs and co-create by virtually providing real-time and personalised information or recommendations to enhance tourists’ physical destination experience. As tourists are less willing to wait or accept delays (Buhalas & Law, 2008), providing them with information at the right time in the right place thus constitutes an invaluable enhancement of the experience. Second, DMOs can gather information in the virtual space and use it for enhancing experiences in the physical space. For instance, by connecting with Foursquare, DMOs can use tourists’ check-ins to create surprise and incentives in the physical destination experience. Considering these differences in the use of co-creation spaces, this paper conceptually distinguishes between a physical and a virtual co-creation space.

c) Multiple Levels of Engagement
As technology unfolds new spaces of co-creation, multiple individuals become connected. The use of Web 2.0 technologies has particularly facilitated a collective virtual space in which the tourist consumer is connected with a whole network of people, including friends, family and peers. In addition to familiar individuals, the tourist consumer is also connected to a wider social network of followers, visitors, tourists and fans, who enjoy engaging, interacting and sharing experiences about a particular destination. With ICTs in place, this paper puts forward multiple levels of engagement which go beyond the dual business-to-consumer (BC2) or consumer-to-consumer (C2C) terminology. This is in line with Prahalad and Ramaswamy (2004b) who argue that with increasing levels of interaction, I2N2I, a flow from individuals to the nodal firm and its network and back to the individual, needs to be realised. In this vein, DMOs need to exploit the potential of multiple levels of engagement by bringing the network of individuals associated with the destination together and encouraging them in the co-creation of their destination experiences.

4. IMPLICATIONS FOR DMOs
The new conceptualisation aims to provide DMOs with a better understanding of how two recent paradigm changes give rise to a new concept, namely Technology Enhanced Destination Experiences, for the marketing and management of destinations. It illuminates how these developments have affected the conditions of destination experience creation and suggests how DMOs can use the full potential of co-creation and technology to become leaders in the facilitation of successful destination experiences. Having stressed the necessity to move from tourism products to services and to providing experiences (Experience Economy), onwards to the recognition of the consumer who actively co-creates experiences with the destination (Experience Co-Creation), the next crucial step is to innovate by facilitating and enhancing experience co-creation through technology (Technology Enhanced Experience). This leads to new perspectives for the practice of marketing and management of destination experiences. As a core element of the tourism industry, destinations need to embrace the opportunities offered by emerging ICTs and start facilitating an extended destination experience space on both physical and virtual levels. In contrast to conventional, i.e., non-technology-enabled experiences, the
integration of ICTs will help tourists co-create better experiences (Prahalad & Ramaswamy, 2004a), generate richer experiences (Tussyadiah & Fesenmaier, 2007) and have more personalised experiences (Niininen, Buhalts & March, 2007; Sandström, Edvardsson, Kristensson & Magnusson, 2008), which will lead to added value for the tourist and in turn competitive advantage for the destination.

Technology hence needs to be regarded as the key instrument for strategic innovation of co-creation and competitive positioning. It is crucial that DMOs still focus on their core competencies, products and experiences, but in addition to that, utilise ICTs in order to maximise and enhance the co-created experience. The role of the destination as the facilitator of the physical co-creation space remains the same. What has changed significantly, however, are the multiple spaces, levels of engagement and networks of interaction that can now be exploited by DMOs.

To further strengthen the understanding and implications of Technology Enhanced Destination Experiences for destination practice, this paper wants to draw attention to a number of current best practice examples in the industry. Thailand can be considered as a best practice example of a technology enhanced destination experience in the virtual co-creation space, both pre- and post-travel. The Thailand DMO’s website features tools such as videos, images and user-generated stories that particularly enhance the virtual pre-travel experience by inspiring, pre-living experiences and encouraging individuals to come to Thailand. Additionally, Thailand focuses on consumer-to-consumer co-creation by means of storytelling to engage tourists in their post-travel phase to remember and share their experiences and at the same time allow prospective tourists in their pre-travel stage to get inspired by real-life stories. Montreal can be named as a second best practice example, as it features an interactive video on the website which takes tourists through different destination experiences. As tourists actively guide and interact with the video, a high level of consumer involvement and co-creation with the destination is achieved. The integration of interactivity not only enables the users to find better information but makes them more engaged and inspired while increasing the likelihood of the destination visit.

Besides these examples, a number of further destinations need to be mentioned. For instance, Las Vegas provides creative personal itineraries and idea generators, New Zealand provides an interactive Trip planner with integrated maps, price ranges, and types of activities to choose from. Co-creation on a consumer-to-consumer level is specifically encouraged by destinations such as Vancouver, which exemplifies the value of customer engagement by integrating Tripadvisor in their website. Similarly, the Canadian DMO website focuses on facilitating customer-to-consumer engagement with a feature called “Explore Canada like a local” which allows tourists to gather advice from locals and travellers who know Canada. In this regard, Visit Sweden can be named as leader in co-creation among consumers by developing a platform called “Community of Sweden”, which is entirely consumer-led and allows them to interact and share experiences about their destination online.

While the majority of DMOs using ICTs focus on virtual pre-travel and post-travel elements, there is also increasing evidence of destinations embracing the virtual co-creation space on-site. Prominent examples include VisitEngland offering the “Enjoy England” travel application, which allows tourists to gather ideas and personalise their search according to indoor/outdoor activities, must-see places and budget available. By allowing direct connection to Facebook and Twitter, the live experience in the destination can be shared with the social network of friends, families and followers. In a similar vein, Hong Kong provides a mobile application named “DiscoverHongKong Mobile App Series”, which was one of the first travel applications worldwide to integrate augmented reality technology. Moreover, VisitBritain offers “LoveUK”, a mobile application which is completely consumer generated by listing the top 100 locations of the UK ranked by tourist’s Facebook check-ins. Hence, VisitBritain places travel suggestions in the hands of tourism consumers who co-create by determining the must-see places of a destination through their collective behaviour and preferences.

The ways in which the above DMO’s realise Technology Enhanced Destination Experiences demonstrates the importance of implementing ICTs to engage, co-create and enhance the overall destination experience throughout all stages, before, during and after travel. As leading destinations adopt ICTs, it is increasingly important for all other destinations to keep up with the dynamics of the market and innovate to remain competitive. Therefore, destinations not yet embracing ICTs in the creation of their experiences need to act as the future of the innovative destination lies in the creation of technology enhanced experiences.

5. CONCLUSION

The notion of creating experiences has become paramount for successful destination marketing and management. Considering that the competitiveness of destinations heavily relies on minimising the interchangeability and replicability of tourism products and services and on maximising the creation of rich experiences (Pine & Gilmore, 1999), it is crucial for DMOs to gain an in-depth understanding of the paradigm shifts changing the conditions they are operating in. To that end, the present paper set out to introduce and conceptualise Technology Enhanced Destination Experiences. In reviewing the theoretical background of the
experience economy, experience co-creation and ICTs, the paper has recognised two major shifts are profoundly changing the nature of experiences and transforming how destinations will create experiences: a) tourists are co-creating their own experiences, and, b) technology can be used to co-create enhanced experiences. This paper aimed to address questions that are critical for destinations wanting to understand this new phenomenon on multiple levels, by answering who is co-creating, where co-creation occurs and where and how technology comes into play in the co-creation of enhanced destination experiences.

Whilst most literature to date has focused on the creation of experiences on-site, this paper goes further to suggest that through technology experience co-creation can reach a new level. By introducing the novel concept of Technology Enhanced Destination Experiences it is argued that the plethora of ICTs, particularly those enabled by mobile technologies and social media platforms, allow DMOs to not only co-create experiences in the physical destination space on-site but to extend experience co-creation into a virtual space. This leads destinations to operate in a new multi-phase experience co-creation space of a physical and virtual nature in the pre-/during-/post- stages of travel. The paper concludes that technology thus needs to be understood as the main source of innovation, strategic differentiation and competitive advantage for the successful co-creation of experiences in the future. Technology is the key instrument for destinations to foster co-creation in multiple experience spaces, multiple levels of engagement and networks of interaction enabling richer, more personalised experiences and distinct value for the tourist. The successful destination of the future will therefore be the one that strategically and effectively integrates ICTs in all structures, communications and interactions to dynamically co-create technology enhanced destination experiences with tourists in all travel stages.

To conclude, as Binkhorst and Den Dekker (2009) state, we are only at the beginning of experience co-creation research in tourism. This paper argued that this is even more the case in research that focuses on using ICTs to co-create enhanced experiences. This paper has contributed by providing an initial conceptualisation of Technology Enhanced Destination Experiences. Although by no means a final and complete conceptualisation, it introduces novel thoughts on destination experience creation that might serve as the first step in a new approach to experience creation in theory and in practice. This study undoubtedly leaves open many questions that are to be addressed in the future. Building on the conceptual propositions of this paper, an agenda for future research on technology enhanced experiences needs to be set out to both strengthen the theoretical basis and extend the implications for destination marketing and management. To develop further this new experience concept, empirical consumer-centric studies are needed to uncover how to specifically use different types of technologies to facilitate experience co-creation within destinations, and how to exploit the virtual co-creation network of tourism providers and consumers to maximise the co-creation potential for enhanced destination experiences in the future.
REFERENCES


