

# Chapter 1

## Information and Communication Technologies (ICTs) in Tourism: Concepts and Developments

**Abstract** Advancements of Information and Communication Technologies (ICTs) have generated deep changes in the tourism sector affecting customers as well as suppliers. Travelers are more demanding and look for differentiated and personalized services. ICTs, and especially Web 2.0, offer new opportunities and resources to improve tourism organizations and destinations, competitiveness, and profitability. The first chapter discusses the evolution from Web 1.0 to Web 3.0 through the analysis of main concepts and definitions about the topic. Moreover, on the basis of literature review, a classification of social media is proposed. The main features of each type of media are examined offering specific examples of applications in the tourism industry. Finally, main trends and streams of research about social media in tourism are discussed.

### 1.1 ICTs Developments in Tourism

The progress of Information and Communication Technologies (ICTs) from the 1970s has transformed the tourism sector from the point of view of industry structure as well as business strategies and practices (Buhalis and O'Connor 2005; Buhalis and Law 2008; Law et al. 2008). The development of Computer Reservation Systems (CRS) in the 1970s and that of Global Distribution Systems (GDS) in the 1980s changed the structure of tourism distribution as well as the Internet (1990s) that, with the recent developments of Web 2.0, influences also the relationships among customers and between customers and suppliers. More and more people are connected to the Internet for a longer amount of time through multiple forms of digital media: computers, tablets, smartphones, TVs, gaming platforms and emerging devices (Nielsen 2012b; comScore 2013; PhocusWright 2013b).

The development of ICTs affects many different sectors. However, recent research confirms a tight relationship between the service industries, especially tourism, and ICTs. Indeed, travel and leisure represent major business areas of online shopping (Nielsen 2012a) in which customers' decision-making is particularly influenced by social media (Nielsen 2012b).

ICTs offer new opportunities and resources to improve tourism organizations and destinations competitiveness and profitability in the future (Buhalis 1998, 2003; O'Connor 1999; Buhalis and O'Connor 2005). Emerging trends in eTourism are focused on the increasing opportunity for companies to adopt a customer-centric approach as well as on the benefits offered by the creation of a network of partnerships with other tourism organizations related to the services provided (Buhalis and O'Connor 2005).

An analysis of previous trends and opportunities shows that ICT developments, and especially Web 2.0, have generated a deep change in consumer habits and expectations. Travelers are more demanding and look for differentiated and personalized services. Therefore, tourism organizations should collect customer information at each stage of tourism service experience (before, during, and after the trip), thanks also to the user-generated content published online, in order to better understand customer needs, offer personalized services and, more generally, develop customer-centric strategies.

Emerging ICT tools can also help tourism organizations increase profitability. First, the opportunity of developing a direct relationship with customers can increase sales and reduce the amount of commissions to be paid to online travel agencies (OTAs) and other distribution channels. Second, the ability to manage web reputation could give organizations the possibility to enhance their corporate image and increase the effectiveness of revenue management activities in tourism services. This is true especially for all steps of the revenue management process: market segmentation and pricing guidelines, demand forecasting, inventory allocation and price optimization, booking and sales (Mauri 2012).

For what concerns the benefits of creating partnerships, we know that tourism products are heterogeneous by nature. Quality evaluation by customers is the result of an overall judgment related to a mix of services generally offered by different companies (Zeithaml et al. 1985; Grönroos 2000). Therefore, the ability to create a network of various operators, following an approach of cooptation (Brandenburger and Stuart 1996; Brandenburger and Nalebuff 1996), may stimulate cooperation among tourism companies with the aim to achieve and deliver higher value to customers (i.e., the collaboration among hotels or between hotel operators and other tourism service providers in a location).

## 1.2 From Web 1.0 to Web 3.0: Concepts and Definitions

Any description of the ICT development path must of necessity start from an analysis of the concepts of Web 1.0, Web 2.0 and the possibilities of future improvements currently grouped under the expression Web 3.0.

Web 1.0 refers to the first stage of the World Wide Web (WWW) characterized by a “read-only” and mainly unidirectional medium. It is based on a static and passive approach: companies create websites to publish information (as in a brochure) and users can only read it. The subsequent stage has been Web 2.0: not a

technical update of WWW,<sup>1</sup> but a new way of using that platform and its well-developed and popular tools, shifting the approach from a static and passive mode to an active and dynamic one (Antonioli Corigliano and Baggio 2004). Therefore, the static platform becomes dynamic and allows people to share knowledge and experiences. It is based on interactivity among users who generates a rapid creation and spread of online communities. Some scholars consider Web 2.0 as a “social movement” that leads to the democratization of technology, information and knowledge (Birdsall 2007; Leung et al. 2013). According to this view, Web 2.0 is an environment where several forms of social interactions of everyday life take place among users, generating content. Actually, this position takes for granted the ICT access and technological skills acquisition of users, establishing new forms of social segregation (inclusion and exclusion) in the tourism system (Munar et al. 2013).

The application of Web 2.0 to the tourism business is named Travel 2.0 and represents a change from Travel 1.0, which was essentially based on the shift from offline to online reservations (Wolf 2006).

Analyzing the definitions of Web 2.0, we still find an ongoing discussion in the literature about the topic. The multidimensionality and complexity of the concept, along with a coexistence of marketing, psychological and information technology elements, create some difficulties in formulating a shared definition (Constantinides and Fountain 2008). Moreover, sometimes the terms Web 2.0, social media and user-generated content (UGC) are used as synonyms. The definitions of Web 2.0 listed in Table 1.1 indicate how the distinction between these three concepts is not always clear.

O’Reilly (2005) defines Web 2.0 as “the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an ‘architecture of participation’, and going beyond the page metaphor of Web 1.0 to deliver rich user experiences.” In 2006, Musser and O’Reilly redefined the term Web 2.0 as “a set of economic, social, and technology trends that collectively form the basis for the next generation of the Internet—a more mature, distinctive medium characterized by user participation, openness, and network effects.”

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<sup>1</sup> Even if Web 2.0 does not represent a technical update of the WWW, some basic functionalities become very important and necessary for its operational effectiveness. Some of them are (Kaplan and Haenlein 2010): Adobe Flash, a multimedia and software platform used to add animation, interactivity and audio/video on web pages; Rich Site Summary/Really Simple Syndication (RSS), uses Web feeds to provide users frequently updated content (news headline, audio, video, etc.) in a customized way; Asynchronous Java Script (AJAX), a group of technologies and interrelated techniques that provide a method for exchanging data asynchronously between browser and server to avoid full page reloads.

**Table 1.1** Some literature Web 2.0 definitions

O'Reilly (2005)	<p>“the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform:</p> <ul style="list-style-type: none"> <li>- delivering software as a continually-updated service that gets better the more people use it;</li> <li>- consuming and remixing data from multiple sources;</li> <li>- including individual users, while providing their own data and services in a form that allows remixing by others;</li> <li>- creating network effects through an ‘architecture of participation’;</li> <li>- going beyond the page metaphor of Web 1.0 to deliver rich user experiences”.</li> </ul>
Musser and O'Reilly (2006)	<p>“a set of economic, social, and technology trends that collectively form the basis for the next generation of the Internet—a more mature, distinctive medium characterized by user participation, openness, and network effects”</p>
Constantinides and Fountain (2008)	<p>“a collection of open-source, interactive and user-controlled online applications expanding the experiences, knowledge and market power of the users as participants in business and social processes. Web 2.0 applications support the creation of informal users’ networks facilitating the flow of ideas and knowledge by allowing the efficient generation, dissemination, sharing and editing/refining of informational content”</p>
Mangold and Faulds (2009)	<p>“consumer-generated media”</p>
Kim et al. (2010)	<p>“websites that make it possible for people to form online communities and share user generated content”</p>
Kaplan and Haenlein (2010)	<p>“the platform for the evolution of Social Media”</p>

*Source* author’s elaboration

Constantinides and Fountain (2008) adopt a strategic and marketing perspective, namely considering the application types and the social effects of Web 2.0, and define Web 2.0 (or social media) as “a collection of interactive, open source and user controlled Internet applications enhancing the experiences, collaboration, knowledge and market power of the users as participants in business and social processes. Web 2.0 applications support the creation of informal users’ networks facilitating the flow of ideas, information, knowledge and promote innovation and creativity by allowing the efficient generation, dissemination, sharing and editing of content.”

The previous definitions combine the concepts of Web 2.0 and social media in the same definition. Even if the authors suggest the separated role of the platform and of Internet applications, specific definitions are not clearly identified. Kaplan and Haenlein (2010) as well as Xiang and Gretzel (2010) try to elaborate a different approach that considers the two concepts separately. As a consequence, Web 2.0 is defined as “the platform for the evolution of social media” and social media can be described 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 and Haenlein 2010). To complete the framework, user (consumer)-generated content is instead defined as “a variety of new and emerging sources of online information that are created, initiated, circulated and used by consumers intent on educating each other about products, brands, services, personalities and issues” (Blackshaw and Nazzaro 2006). According to the Organization for Economic Co-operation and Development (OECD 2007), user-generated content has three main features: it is publicly available in the Internet, it reflects the consumer’s creativity, and it is created outside professional practice.

Finally, Web 3.0 is the subsequent evolution of Web 2.0. Academics, professionals, and managers hold different opinions about the future evolution of the Web. A first position is focused on the relational and social aspects, looking at the development of semantic web technology and artificial intelligence. Another stream of thought concentrates on information technology features and trusts that Web 3.0 will mean an increase of speed of the Internet and of Web applications as well as graphics improvements (Eftekhari et al. 2011). However, many observers agree that the next step of development will be characterized by data interoperability<sup>2</sup> (Gasser and Palfrey 2007; Buhalis and Law 2008), three-dimensional experiences and co-creative web.

Despite the development from Web 1.0 to Web 3.0, some studies in the tourism sector point out a slow process of adoption of Web 2.0 by travel operators (Stankov et al. 2010; Leung et al. 2011).

### 1.3 Social Media Classification

As social media is a complex subject which includes numerous approaches, tools and techniques, it can be useful to try to identify the main categories. Based on the definitions given in the previous section and on recent classifications (Constantinides and Fountain 2008; Mangold and Faulds 2009; Kaplan and Haenlein 2010; Heinonen 2011; Wilson et al. 2012), the following types of social media can be identified:

- *collaborative projects* the user can add, remove, and change text-based content in these websites (i.e., Wikipedia);
- *virtual communities* on these platforms people can share information, content (text, audio, video) (Twitter), and opinions about a specific topic, writing also reviews (Tripadvisor, Virtual Tourist, etc.) or diaries (personal blogs containing travel diaries);

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<sup>2</sup> According to Gasser and Palfrey (2007) “ICT interoperability is what we might describe as the ability to transfer and render useful data and other information across systems (which may include organizations), applications, or components.” Although the more widespread definition focuses in particular on technological aspects, interoperability is a broad concept which can change according to the context in which it is applied.

- *content communities* in these websites users can share media contents like texts, videos, photos, etc., (i.e., BookCrossing, Youtube, Flickr, Pinterest, Instagram, etc.);
- *social network sites (SNSs)* websites which allow people to create profiles with personal information, sharing those contents with friends and colleagues. People involved in such activities communicate by means of e-mails and instant messaging (i.e., Facebook, LinkedIn, etc.);
- *virtual games/social worlds* platforms where users can appear in the form of an avatar and interact with other users as in real life (e.g., online games of Microsoft X-box or Sony Playstation and websites like Second Life).

Kaplan and Haenlein (2010) propose a matrix that visualizes the categories previously identified according to two dimensions on the base of the theories of media research and social processes: social presence/media richness (low, medium, high) and self-presentation/self-disclosure (low and high). The first dimension is a combination of social presence and media richness. Social presence refers to “the acoustic, visual and physical contact between two communicators,” while media richness is “the amount of information that they (media) allow to be transmitted in a given time interval.” The second dimension is a combination of the propensity to develop interactions with other people in order to control their impression (self-presentation) and the “conscious or unconscious revelation of personal information that is consistent with the image one would like to give” (self-disclosure).

Table 1.2 shows a matrix adaptation which underlines what, in our opinion, are some recent developments of social media classification due to improved technologies and advances in social interactions. These changes refer to an increase of social presence/media richness for virtual communities (especially blogs and micro-blogs) and an increase of self-presentation/self-disclosure for content communities.

**Table 1.2** Social media classification

Self-presentation/ Self-disclosure	high		Social networks (i.e. Facebook) Virtual communities (blogs, micro-blogs)	Virtual social world (i.e. Second Life)
	medium	Virtual communities (commercial review websites) (i.e. TripAdvisor)	Content communities (i.e. Youtube, Pinterest)	
	low	Collaborative projects (i.e. Wikipedia)		Virtual games (i.e. Xbox, Playstation)
		low	medium	high

Social presence/Media richness

Source author’s elaboration on the basis of Kaplan and Haenlein (2010). With kind permission from Elsevier

In fact, initially micro-blogs were simpler instruments devised for thoughts sharing using text, but now the social presence/media richness has increased and users can share photos and videos too.<sup>3</sup> In the case of content communities, for example, Youtube and Pinterest are becoming more and more social media where people often create and share personal content (video or photo diaries) causing an increase of the self-presentation dimension. Finally, the classification proposes a distinction between commercial review sites and blogs/microblogs for the dimension self-presentation/self-disclosure.

### *1.3.1 Collaborative Projects*

Collaborative projects are based on the Wiki<sup>4</sup> technology that is closely linked to open source software (i.e., Linux). Wiki websites allow all the users who visit the page to create, remove and modify content even without a subscription (Kaplan and Haenlein 2010). Wikipedia is the most popular example of this approach. It is a free online encyclopedia in which contents are provided voluntarily from all users (Wikipedians), whether peers contributors or experts. Since its foundation in 2001, Wikipedia has acquired a total of 923,879 users and the content is now available in more than 280 different languages.<sup>5</sup> A similar experience in the travel sector is that of “Wikitravel” whose aim is the creation of a free, up-to-date, and reliable travel guide with the contribution of travelers/users (Wiki-travelers) who can add, remove, and change the information offered in the website.

Over the years, the quality of information (accuracy, completeness, comprehensibility) of Wikipedia has generated serious concerns (Fallis 2008). Some studies state the accuracy of information in Wikipedia in comparison with other authoritative sources (i.e., Encyclopedia Britannica) (Giles 2005; Magnus 2006). Cho et al. (2008) demonstrate that there exists a closer relationship among peers rather than experts in the knowledge refinement process. However, other studies, holding the opposite view, demonstrate that Wikipedia is a less reliable source of information than other reference resources (Gorman 2007; Rector 2008). Nevertheless, Wikipedia, and in general similar websites based on Wiki technology, are more and more employed by Internet users as a source of information and, therefore, should be the object of serious consideration by companies (Kaplan and Haenlein 2010). In particular, a constant action of control of information published about companies, brands, and products is advisable to avoid and opposes the spread of unpleasant information. Moreover, Wiki technologies could be exploited to develop collaborative projects with employees and customers.

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<sup>3</sup> This topic will be dealt with in-depth in the next sections.

<sup>4</sup> The word “wiki” comes from the Hawaiian word “quick,” WikiWiki ([www.wikipedia.com](http://www.wikipedia.com)).

<sup>5</sup> See [www.wikipedia.com](http://www.wikipedia.com) consulted October 2013.

### 1.3.2 *Virtual Communities*

The expansion of social media applications has created various forms of virtual communities. This term is generally used today with a broad meaning including any group of people who communicates online about a common interest and with common purposes. A survey of literature points to an evolution from more general definitions, related mainly to the virtual setting where the relationship takes place, to more specific ones more connected with the emotional meaning of being part of a community. Wang et al. (2002) define the concept of virtual communities as “groups of people who interact with specific purposes, under the governance of certain policies, and with the facilitation of computer mediated communication (CMC).” According to Lee et al. (2003), a virtual community is “a cyberspace supported by computer-based information technology, centered upon communication and interaction of participants to generate member-driven contents, resulting in a relationship being built up.” Blanchard and Markus (2004) lay stress on the sense of community (SOC), which they see as the essential characteristic of virtual communities. SOC in offline studies is based on feelings of membership, feeling of influence, integration and fulfillment of needs, and shared emotional connections.<sup>6</sup> This implies a difference between virtual communities and other kinds of social media where relationships do not originate from common areas of interest (i.e., Facebook). Therefore, virtual communities can include blogs, micro-blogs, and commercial review sites.

The word “blog” derives from a combination of “web” and “log.” It is generally defined as a website usually managed by one person who provides information for other users, with journal style entries in reverse chronological order (OECD 2007; Kaplan and Haenlein 2010). Blogs have represented the first step in social media development. Due to their flexible nature, blogs can be used to provide general information about a specific topic, often accompanied by authentic personal life experience (i.e., personal diaries) (Pan et al. 2007), and to interact with other bloggers who can add comments and share their experience, hence building a virtual community.

A stream of research studies the blog concept applied to the travel sector in order to identify a classification. Thevenot (2007) classifies blogs in the travel and tourism business in four main categories: individual, collaborative, corporate, and traditional media. Schmallegger and Carson (2008) identify four types of travel blogs: consumer-to-consumer (C2C), business-to-business (B2B), business-to-consumer (B2C), and government-to-consumer (G2C). Sung et al. (2010) classified online brand communities into consumer-generated and marketer-generated. In relation to these categories, it is particularly interesting to examine the differences between individual (C2C) and corporate (B2C and G2C) blogs. Individual blogs (also called personal blogs) are websites where a person publishes personal thoughts about a topic (company, product, brand, destination, etc.) in different

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<sup>6</sup> For further insights on the conceptualization of SOC, see McMillan and Chavis (1986).

forms: text, pictures, video, etc. An example is the blog of Derek Earl Baron ([www.wanderingearl.com](http://www.wanderingearl.com)), a traveler who defines himself as a “permanent nomad” and who posts all his experiences on the blog giving advice and sharing information, pictures, etc. Another example is that reported by Lin and Huang (2006): a Taiwanese engineer came back from the Aegean Sea, created the blog “I left my heart in the Aegean Sea” and put inside 124 photos of his travel experience. It was a great success that, according to the study of Lin and Huang (2006), stimulated in 45 % of blog readers an intense desire to visit the destination.

The blog concept has been adopted by corporate organizations with the name of corporate blogs. They represent the intention and desire of a company or a brand to interact and engage in a conversation with customers and employees (intranet blogs)<sup>7</sup> sharing knowledge by means of a swift and low-cost medium. Corporate blogs are generally managed by staff members or sponsored bloggers in order to share with customers and prospects information about the brand and the latest news, offering the possibility to interact with the company (Schmallegger and Carson 2008) and stimulating trust (Leung et al. 2013). An example of corporate blogs is Marriott on the move ([www.blogs.marriott.com](http://www.blogs.marriott.com)) managed directly by Bill J.W. Marriott (Chairman and CEO of Marriott International). Here people can really engage with the brand because Bill Marriott regularly posts his comments and thoughts also related to his personal life (his relationship with his father, his family life, etc.) and replies to comments of bloggers.

Micro-blogs, such as Twitter or Friendfeed, can be considered half-way between traditional blogs and social networking sites on the continuum of social media classification. In fact, on the basis of the classification of social media described in the previous section (Kaplan and Haenlein 2010), micro-blogs have a relatively high level of social presence and media richness in comparison to traditional blogs (Kaplan and Haenlein 2011). The mechanism is similar to that of blogs but with limits in the content length (very short sentences). In the case of Twitter, the limit of messages is 140 characters. The short posts are distributed by instant messages, mobile phones, email, or the Web.

Commercial review sites (Wilson et al. 2012) are platforms where people can share information and opinions about a specific topic, and write reviews (TripAdvisor, Virtualtourist, etc.). The difference with a corporate blog is generally the consumer-to-consumer orientation and the focus on online ratings of travel destinations and operators. In fact, in commercial review sites, unlike in corporate blogs, the promoter of the blog who shares information interacting with others is neither a traveler, nor a company. On the contrary, the communication flow starts from a user who describes his experience, giving a score to each service according to the rules of the specific website. From the very first interaction, the content is generated by the traveler. For example, on TripAdvisor if a traveler writes a review about a hotel that is not present

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<sup>7</sup> A study of Nacht and Chaney (2007) found that intranet blogs can be very useful for training and, in general, for communication with staff members, especially when they are based in different locations.

on the website, his review automatically creates the page of that operator. After that, other people can interact giving their opinions or asking for recommendations.

### 1.3.2.1 Micro-Blogging: The Case of Twitter

Twitter was founded in 2006 by Jack Dorsey and has become one of the most popular social media (Nielsen 2012b). The number of active registered Twitter users is more than 500 million with 135,000 new users every day. The number of people following Twitter on mobile applications is increasing and represents today 43 % of users (Statisticbrain 2013). Even though 40 % of accounts are inactive, as they are used by people who do not tweet but watch other people tweet, the micro-blog has become very popular and is second after Facebook especially for mobile applications (Nielsen 2012b). Moreover, along with Facebook and the official company blog, it is the most widely used channel to access social care, that is to comment and ask information about the company's product or service (Nielsen 2012b).

Twitter is different from a social network concerning the relationship among users who requires no reciprocation. In fact, the user (in this case, the follower) can follow others without being necessarily followed by them. The follower receives the messages of followed users (tweet) and, if he decides that the tweet is very interesting and worth sharing with his network, he can decide to spread information to others (retweet). This represents a great potentiality for companies that, if able to engage customers with their tweets, could increase electronic word-of-mouth. In the area of hospitality for example, a hotel guest could "retweet" adding a comment. Here is an example of a tweet published by a hotel guest<sup>8</sup>:

Hi @\*\*\*\*\* you must promote @\*\*\*\* Hotel as they were fantastic with our kids!!! #travel #tt.

Due to the very short length of the messages (140 characters), micro-bloggers usually include links to websites or traditional blogs in their tweets in order to provide more information about the topic. In this case, the message acts as a promotional ad inviting people to click on a specific link. An interesting example is a tweet about a hotel that was linked to the corporate Instagram page<sup>9</sup>:

Mizzi Hotel@MizziHotels  
Looks like a perfect day for the pool! RT @\*\*\*\*\*  @ Spa at Mizzi Hotels  
[http://instagram.com/\\*\\*\\*\\*\\*](http://instagram.com/*****).

As a consequence of the previous assumptions, the combination "push-push-pull communication" can be identified as a specific feature of micro-blogging: from sender to followers, from followers to followers, and from receivers to an external source of information (Kaplan and Haenlein 2011).

<sup>8</sup> The names of the hotel and the guest were intentionally removed.

<sup>9</sup> The hotel name in this example is intentionally a fictional name.

### ***1.3.3 Content Communities***

Content communities are websites that allow users to share with a network of contacts media content of different types: texts (i.e., Bookcrossing), photos (i.e., Flickr, Pinterest, Instagram), videos (i.e., Youtube). The shared content can be private, visible only to the user's network, or public, when other people in the social community can look at the user's pictures and videos.

Online pinboard sites, led by Pinterest, is a relative recent online phenomenon in this category of social media. It is basically a way of sharing content (images, texts, videos) liked by the user with whoever follows him; this person in turn can comment on them if she/he has permission. The type of access to the community can differ according to the social media considered. For example, Pinterest has only recently opened up the possibility to create a profile for users because, at first, the account was obtainable only by invitation.

Pinterest is definitely the content community that is growing more rapidly in comparison with other social media of the same category. This growth is probably due also to its integration with Facebook and the possibility to create an account directly without an invitation by others.

#### **1.3.3.1 Online Pinboards: The Case of Pinterest**

Pinterest is a visual bookmarking site, a virtual pinboard, in which users collect, organize, and share what they love through images, videos, and comments. Since its launch in 2010, Pinterest has experienced an exponential growth from what concerns year-over-year audience increase and time spent across all devices (PC, mobile web, and apps) (Nielsen 2012b). Its audience reached 46 million visitors in July 2013 and is mainly composed by women aged 25–44 (comScore 2013). In comparison with other social media, Pinterest generates more referral traffic to other websites: this is probably due to the direct link from the picture/video to the website that includes additional information about it.

In practice, when a user finds something interesting he can “pin” his “interests” (from the combination of these two words comes the name Pinterest) on his “board,” that is the section of the page which collects different areas of interest. Users can have different categories of board depending on their needs, desires, and inspirations. Moreover, users can perform the action of “repining,” that means pinning in their board an image or a video that another user has already “pinned.”

As in the case of Facebook, thanks to its features a company can use a Pinterest page to promote a brand, a product, an event, etc. The increasing practice by users to get inspiration and find products to buy by interacting on Pinterest led recently to the creation of specific business-oriented pages. Regarding travel and tourism, more and more travelers use Pinterest in the planning stage, exploiting the visual impact and power of images, that is very involving, and the opportunity to share their tourism planning experience with other people. Business functions enable

companies to interact with users in a more professional and reliable way. Indeed, before starting a session on Pinterest, the business page is verified by the social media with a hidden line of code and, after the code has been recognized, businesses receive a verification badge on their Pinterest profile. From that moment, companies can start to create their boards, pinning content inside them. Moving from the assumption that the company's customers present features similar to that of Pinterest users, boards can be created to address different target markets of interest to the company. For example, in the case of hotels, boards can concern different topics according to specific target markets: wedding, conferences, events, etc., but they can also tell the story of the company and introduce staff and the location.

Right now, personal accounts and business accounts include the same features. The business account provides a dedicated area, "Analytics", which tracks the pinning activity of users on the website (pins, repins impressions, and click) and allows the company to examine data by date and by type of content. All the charts can be exported for further analysis. On the basis of analytics, the company can also screen users who are pinning on the websites by consulting their boards and their pins and repins about other products too.

### ***1.3.4 Social Network Sites***

Social Network Sites (SNSs) are websites that allow subscribers to connect and interact with other people. The starting point is the creation of a public or semi-public profile<sup>10</sup> followed by an invitation to other members to share profiles (becoming friends), thus being automatically added to the list of contacts. This creates a group of people who share information and content (text, photos, videos, etc.) (Boyd and Ellison 2010). Users can communicate by means of posts, instant messaging (chat), or e-mail. The first type (posts) is public and all the contacts of the list can see it. In the other cases (instant messaging and e-mails), the communication is directed only to a selected friend.

SNSs can connect people with friends for leisure purposes (i.e., Facebook) or for professional reasons (i.e., LinkedIn). Nevertheless, these boundaries have changed with the development of corporate Facebook pages that allow companies to create specific pages for the company itself, single brands and products to interact with customers who are trying to engage them.

One of the first social networking websites, launched in 1997, was SixDegrees.com. This site started the trend of enabling users to create personal profiles and

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<sup>10</sup> Many SNSs offer some form of privacy by allowing their users to choose a public, private or limited viewing profile. Privacy policies of SNSs differ depending on the social network. Chapter 6 offers a more in-depth analysis of privacy implications.

make lists of friends. Anyway, Facebook,<sup>11</sup> launched in 2004, remains the most popular social networking site in the world (75 % of users live outside the United States) with more than 1 billion accounts worldwide of which 50 % log on daily and more than 6 million are mobile users (Nielsen 2012b). Moreover, Facebook has proved one of the most widely used social media for access to social care, that is the action of customers interacting with a company, a brand or a product on the corporate Facebook page or on the personal Facebook page (Nielsen 2012b).

Many companies in various business areas are already using social networks to improve their communication strategies. In some cases, the intention is also that of transforming social networks into distribution channels trying to “call to action” customers. An example in the hospitality industry is the “book now” function in the Facebook page that is connected directly with the booking engine of the hotel.

#### 1.3.4.1 Facebook Corporate Pages

Along with the growing interest of companies in using Facebook to manage communication activities with customers and doing business, specific corporate accounts were created because commercial activities are prohibited in personal profiles. Personal profiles and business pages present some differences (Garibaldi and Peretta 2011). First of all, the purpose is obviously different because the company’s objective is not to socialize and find new friends, but to attempt to engage with customers, creating a long-term relationship and consequently improving sales. This difference implies a reduction in functionalities of the corporate page in actions toward personal profiles. In fact, the corporate Facebook page cannot send or receive friendship requests or see the profile of the page users. On the contrary, users receive updates on the company, the brand or products. This is allowed by Facebook policies because, by “liking” the corporate page, users have opted to receive this information.

The Facebook business page is structured as follows (accessed in September 2013):

- cover photo and the profile picture of the company/brand;
- “page title” and counting metrics visible by users (e.g. like, people talking about this and were here);
- “about” where the company can give general information (i.e., mission, brief description, etc.);
- “View and Apps” the area of the page that the company can customize (it is generally composed by the sections photos and events but other functions can be added);

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<sup>11</sup> The initial purpose of Mark Zuckerberg upon creating Facebook was to allow university students to create and maintain social relations.

- “composer” the area where companies can interact with users asking questions with text, pictures, etc.;
- “friend activity,” where users can see how their friends interact with the page;
- “Date Selector” allows users to navigate sections of the page timeline;
- “Admin Panel” is a specific service that allows the company to view notifications, replies to messages, view page insights and edit page content.

Facebook offers also specific services for developing the page and checking corporate performance. Starting from the Admin Panel it is possible to access the “Facebook Page Insight” which collects all the Key Performance Metrics of the page (e.g. total likes, friends of fans, people talking about this, and total reach), which can be consulted and also exported to Excel, selecting a specific period of time. Data give also demographic information about the users of the page, trying to understand how they respond to posts.

### ***1.3.5 Virtual Games/Social Worlds***

Virtual worlds are online 3D representations of real life in which people interact with others in the form of avatars. Two forms of virtual worlds can be identified (Kaplan and Haenlein 2010):

- virtual games world is a Massively Multiplayer Online Role-Playing Game (MMORPG) where users must behave according to specific strict rules;
- virtual social world is a freer environment in which users can behave as in real life.

The first kind of virtual world has recently become popular due to the development of Playstation (Sony) and X-box (Microsoft). These are consoles in which games are more and more similar to real life and players can interact by chatting or by real-time conversations all over the world. Online multiple means of communication facilitate also the transformation of virtual friendship in offline real relationships.

The most popular expression of the second kind of virtual world is Second Life, a three-dimensional environment that provides users with the possibility of constructing an avatar, that is an alternative identity. Users interacting in the platform decide whether to replicate their real life or create a new improved version of it. Residents of Second life can buy and sell their content exchanging virtual money (Linden Dollars). They can manage businesses, work in a shop, earn money, and then keep it in the Second life bank (Kaplan and Haenlein 2010).

The main difference between the two kinds of virtual worlds is that in virtual games users are characters<sup>12</sup> of a predetermined story with some specific rules to

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<sup>12</sup> In online virtual games players can create their avatars who can change in each game but derive inspiration from existing characters. New games are trying to multiply the possibility of free choices within this process.

follow and cannot decide freely what to do, as in the virtual social world. However, with the development of technology, firms that produce games are trying to offer a higher level of freedom to players regarding how to live their stories. This is the case of the game Grand Theft Auto (GTA) especially in its last edition.

Virtual worlds (games or social life) are interesting opportunities for companies especially related to communication activities like advertising, promotion, market research. Virtual product/location placement could, for example, increase the visibility of a new product launched on the market (a car in a race game or a flagship store in Second Life). Moreover, locations are the settings of these online worlds. Therefore, a tourist destination could be chosen as the setting of a new game or reproduced in Second Life where a hospitality brand could also open a new hotel. For example Aloft, a brand of Starwood Hotel and Resorts, opened a three-dimensional hotel in Second Life.

## 1.4 The Development of Social Media in Tourism

Social media have been transforming the way people communicate with each other and with companies. This is true especially in the tourism sector where customers more and more often interact with other people on social media during the different phases of their travel planning, especially during information search (Xiang and Gretzel 2010; Shao 2009). In fact, at this step of the consumer behavior process, social aspects like sharing, opinions and recommendations from friends play a central role. A study of PhocusWright (2013a) on the European travelers found that more than 50 % of interviewed individuals consider recommendations from friends and family influential and extremely influential in the decision process regarding whether to try or not a new brand.<sup>13</sup> In fact, the travel planning process is mostly influenced by travel review websites (69 %), followed by online travel agencies (57 %), travel provider sites (56 %), and friends and relatives (43 %) (TripAdvisor/TripBarometer 2013). A study by Google Think Insight (2013) confirms that both leisure and business travelers increasingly search online for reviews of other tourists (42 % leisure; 55 % business), find inspiration (42 % leisure; 48 % business), and look at travel content or reviews by friends or family (27 % leisure; 39 % business). The statistics presented here and in the previous sections demonstrate the increasing use of social media by travelers during the decision-making process. As a consequence, academic research on the topic mainly aimed at studying the impact of social media on both consumers and companies (Leung et al. 2013) has increased over recent years. A stream of research is particularly focused on impacts of social media on travelers. In various studies scholars observe the behavior of travelers interacting with

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<sup>13</sup> The study reports about the results for France (influential, 30 %; extremely influential, 19 %), Germany (influential, 37 %; extremely influential, 23 %), and UK (influential, 39 %; extremely influential, 22 %).

social media in different stages of the travel planning process: before leaving (pre-trip), during their stay (during-trip), and after having come back (post-trip).<sup>14</sup> In relation to these steps, the majority of researchers agree on the increasing role of social media especially for gathering information, evaluating alternatives, avoiding unpleasant places, and providing ideas before purchasing (Gretzel 2007; Anderson 2012). In fact, user-generated content such as customer reviews, travel diaries, etc. has become a key source of information for travelers (Pan et al. 2007). Electronic word-of-mouth (eWOM) offers noncommercial, authentic, and experiential detailed information about destinations and operators that are considered generally more and more reliable because they are not managed by the company (Buttle 1998). Therefore, travelers check feedbacks and read about the experiences of other people before choosing a destination, a hotel, etc., and then share their experience during the trip and after it when they get home. In particular, the interactions among travelers in the “during-trip” experience are increasing, thanks to the development of mobile technologies (Buhalis and Law 2008) that allow travelers to publish on Facebook images and videos of what they are doing, chatting real-time with friends about the experience they are enjoying by means of social networks or of other mobile apps (i.e., WhatsApp).<sup>15</sup> The change in travelers’ habits concerns also the relationship with travel companies. In fact, according to recent statistics, consumers prefer social media to interact with brands and service providers (learn more about products, compliment brands, complaining about a product/brand) (Nielsen 2012b).

All these trends could become opportunities for travel companies to develop marketing strategies toward various target markets (Inversini et al. 2010; Munar 2010; Xiang and Gretzel 2010). Moreover, in view of the effect on purchases of negative customers’ feedbacks published on the Net (Chatterjee 2001; Laczniak et al. 2001), companies may sometimes face some threats. In the light of this, a stream of academic research focuses on social media application from the supplier perspective. In particular, social media play a key role for promotion activities, product distribution, communication, management, and research (Leung et al. 2013). Even if until now practitioners have valued social media especially for promotion and communication rather than as independent distribution channels (Noone et al. 2011; PwC 2013), the future trend for social media marketing could move from the current brand marketing to conversions and sales. However, the use of social media as a communication tool, if properly managed, can engage customers with a possible effect on customer loyalty, electronic word-of-mouth, and consequently on corporate sales and revenues (Dellarocas 2003; Chevalier and Mayzlin 2006; Dellarocas and Zhang 2007). Despite the increasing attention of

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<sup>14</sup> The classification of the travel planning process in pre-trip, during-trip and post-trip was proposed by Engel, Blackwell and Miniard in 1990 and is one of the most widely used by scholars in research on social media influence on travel-decision making.

<sup>15</sup> The study TripAdvisor/TripBarometer (2013) found that travelers are more and more connected also during the trip and main activities are uploading photo (39 %) and news (34 %) on social networks and finding activities to do at the destination (33 %). The research was conducted on 15,595 TripAdvisor users in the period December 2012–January 2013.

practitioners and academic researchers on the topic, a few studies in the tourism sector demonstrate a slow process of adoption of social media by travel operators (Stankov et al. 2010; Leung et al. 2011). Some companies, eager to be present “on the Net,” forget that it is a special environment with specific rules needing a specific strategy, obviously integrated with other more traditional marketing strategies.

In the light of these first reflections, the following chapters will analyze in detail the effects of social media on the travel sector from the customer and the supplier perspectives. Possible future trends related to the development of ICTs in tourism (i. e., social mobile marketing) and specific aspects of ongoing discussions (i.e., social media metrics, SNSs privacy policies, social intelligence ethical and legal implications, etc.) will be also examined.

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