Chapter 5
Mobile Social Media Marketing in Tourism

Abstract The combination of social media and mobile technologies has changed the way people communicate and influence all the steps of travel planning behavior. In particular, the convergence of social media, virtual reality, and physical space determines the development of a new perspective toward Mobile Social Media (MSM). This chapter will examine MSM concept and classifications, as well as possible applications in the tourism business. The last part of the chapter will discuss the actions travel organizations might undertake to exploit these mobile marketing applications.

5.1 Mobile Technology Influence on Travelers

In light of the influence of Information technology (IT) and social media on travelers' behavior examined in Chap. 3, this section will focus in particular on the impact of mobile technology on the travel business with particular reference to Mobile Social Media.

People are nowadays increasingly connected to the Web and employ an extensive range of technologies and devices (PC and mobile) during the travel planning process (Parra-Lòpez et al. 2012; Xiang et al. 2014; comScore 2013).

As examined in Chap. 3, the development of mobile technologies affects in different ways the travel planning behavior. In particular, the opportunity of having a mobile connection moves some of the planning operations from the pre-trip to the during-trip phase (Xiang et al. 2014), especially in the case of high experience customers or already known destinations (e.g., research of attractions, restaurants, maps, etc.) (Jun et al. 2007). Indeed, thanks to Global Positioning Systems (GPS) technologies (i.e., location-based mobile Apps), tourists can make easily real-time decisions about various services directly at the destination: travelers can manage unexpected situations and complete travel activities more efficiently and effectively (Wang et al. 2012). Among various mobile devices, smartphones provide a wide range of information services that can support both basic travel activities (such as

R. Minazzi, *Social Media Marketing in Tourism and Hospitality*,
DOI 10.1007/978-3-319-05182-6_5

planning, reservation, and navigation) and many "micro-moments" (Wang et al. 2012) (e.g., looking for a restaurant, a city guide, the location of the hotel, local transportation). Furthermore, during the trip travelers share also their experiences. A study of Wang et al. (2012) on customer reviews of smartphone applications reveals that the use of smartphones mediates the touristic experience by changing behavior and emotional states. People become "mobile storyteller" (Klastrup 2007): they can create context-related information (Buhalis and Foerste 2013) and share real-time experience (Qualman 2012; Litvin et al. 2008) by means of mobile devices.[1]

The cited trends are enhanced by the increased technical improvements in mobile phones (e.g., smartphones), more and more able to support a vast number of applications and characterized by advanced functionalities. Therefore, modern mobile devices such as smartphones and tablets, combined with the Internet connection, and improved with the opportunity to share user-generated content, represent powerful channel to communicate with travelers. For travel companies and destination management organizations this is a remarkable business opportunity, in order to undertake a subtler service differentiation, to improve travel experience, satisfying existing customers, and acquiring new ones.

5.2 From Virtual Reality to Augmented Reality

Before going on in the analysis, it is necessary to highlight the evolution of main theoretical interpretations and key technical improvements that have permitted the spread of mobile marketing.

One of the main research topics has concerned the relationship between "real environment" (Han et al. 2013) and digital technologies. In particular, during the last decades two different perspectives have emerged with reference to the relationship between virtual space and reality (Mandelli and Accoto 2012), leading to the conceptualizations of the concepts of "virtual reality" and "augmented reality" (Weiser 1991).

Virtual Reality (VR) is an environment similar to the real world in which the user is "totally immersed in, and able to interact with, a completely synthetic world" (Milgram and Kishino 1994). This concept implies the attempt to reproduce real life in a virtual space.

On the contrary, Augmented Reality (AR) has the purpose to enhance the surroundings of the user with virtual information that is registered in 3D space and seems to coexist with the real world (Azuma et al. 2001; Yovcheva et al. 2012). AR provides a medium of interaction where virtual objects are part of the real world (a mixture of reality and virtual reality). Milgram and Kishino (1994) conceptualized the so-called "virtuality continuum" from reality to virtual reality and in

[1] For major insights on the topic of Mobile storytelling see Chap. 3, Sect. 3.4.1.

between they positioned various level of Mixed Reality (MR). Augmented Reality (AR) is considered the most known form of Mixed Reality.[2]

Virtual reality and Augmented Reality share the features of interactivity and three-dimensional images but they also reveal some evident differences. First, they present a different level of immersion. As previously mentioned, in VR the user is totally immersed in a synthetic world while in AR the user does not lose a sense of presence in the real world because virtual factors are supplements of reality. Second, VR limits the user's physical movement while AR implies portability of the virtual system that can be also embodied in physical objects (Ma and Choi 2007).[3]

AR variety and widespread are increasing due to recent advancements of IT and improvements of Internet connectivity that have generated a growth of the quantity of both sensors embedded in physical products (e.g., automobiles, electrical appliances, tourist attractions) and of mobile devices able to read them (e.g., smartphones, tablets). Therefore, due to the intrinsic features of AR and to recent technological developments, the term Mobile Augmented Reality (MAR) was coined to describe the combination of mobile technologies and AR.

Among various devices, in particular smartphones combine in one small device all necessary technologies needed for AR (Wang and Xiang 2012). Therefore, in light also of their remarkable penetration index in almost all modern countries (Boston Consulting Group 2013), travel companies should consider the most appropriate ways of employing smartphones as a channel of communication with travelers.[4]

In practice, Mobile Augmented Reality (MAR) allows travelers (owners of a smartphone) to point the device toward a physical object in the surroundings and visualize different type of content and information according to the application (videos, images, text). An example is the use of smartphones as a QR code (Quick Response Code)[5] scanner in order to display on the screen basic and supplementary information (text, audio, video) about a product or, generally speaking, an object. In the tourism sector QR codes are employed by suppliers (hotels, restaurants, museums, etc.) and destinations to improve customer service and to provide additional information. For instance, most popular cities (e.g., New York, Paris, etc.) provide QR codes embedded in specific supports (sometimes in decorative ceramic panels) near main attractions that allow accessing to the city guide. The content provided could concern the description of a specific attraction or, more in general, the city history and culture, or a map with various itineraries (e.g., cultural,

[2] For an historical overview of Augmented Reality see Höllerer and Feiner (2004).

[3] This operation is called the "Internet of Things" and refers to the action of embedding in physical products sensors that connect them to a network of computers, producing data (Chui et al. 2010). For a Review of the concept see Baoyun (2009).

[4] For major insight on Augmented Reality applications to Urban heritage tourism see Han et al. (2013) and Jung and Han (2014).

[5] A QR code is a two-dimensional barcode readable by mobile phones after having downloaded a specific application. It allows to access additional information about the object/product where is located.

religious, wine, food, etc.). Sometimes, QR codes are also embedded in the pavement of the street in particular "point on interest".

Another example of Mobile Augmented Reality (MAR) is the opportunity offered by smartphones to point a mobile device toward a physical object in the surroundings and visualize different content also without a QR code. This technology is today often linked to mobile wearable devices. In this case, sensors are embedded also in accessories that people can wear. A very popular example is that of Google glasses. This device allows users to visualize additional information about an object they are watching at in the surroundings by means of specific gestures (i.e., opening and closing eyes). Other forms of wearable devices are bracelets (e.g., Samsung Galaxy Gear), watches (e.g. Apple Watch), rings, apparel, etc. If compared with smartphones, wearable devices are in the step of development, but recent statistics shows high growth potentiality of these devices.

5.3 Social Media and Mobile Media: Mobile Social Media

The development of mobile devices connected to the Web, along with the convergence of social media, virtual reality, and physical space, determines a change of paradigm toward the so-called Ubiquitous Social Media (USM) (Mandelli and Accoto 2012) or Mobile Social Media (MSM) (Kaplan 2012; Buhalis and Foerste 2013). In particular, the combination of social media and mobile technology changes the way people communicate. New forms of socialization based on proximity, mobile tracking and location-based services such as GPS are developing. According to Buhalis and Foerste (2013) the advantages of social media marketing combined with contextual marketing into social (So) context (Co) and mobile (Mo) marketing (SoCoMo marketing) represent a valuable opportunity for travel firms.[6]

As briefly summarized in Sect. 5.1, and more in-depth analyzed in Chap. 3, travelers' planning behavior and experience are heavily influenced by the opportunity to search information and share content provided by mobile technologies, especially during the trip. Moreover, the widespread of mobile applications, more and more characterized by a social inclination, contributes to further influence this impact.

Mobile Social Media (MSM) can be defined as "a group of mobile marketing applications that allows the creation and exchange of user-generated content" (Kaplan 2012). Mobile social media applications can be classified on the basis of two variables: location sensitivity considers whether the message takes account of the specific location of the user while time sensitivity reflects whether the message is received and processed by the user instantaneously or with a time. According to these variables Kaplan (2012) proposes a matrix that classifies four kinds of MSM (Table 5.1):

[6] According to the authors "SoCoMo marketing" has some advantages for both suppliers and consumers. For more insights about the "SoCoMo marketing" conceptual framework see Buhalis and Foerste (2013).

Table 5.1 Classification of MSM

Time sensitivity	*Location-sensitivity*	
	No	***Yes***
Yes	**Quick-timers** Social networks (e.g. Facebook) Virtual communities (Blogs, micro-blogs) (e.g. Twitter)	**Space-timers** (e.g. Foursquare, Facebook places)
No	**Slow-timers** Collaborative projects (e.g. Wikipedia, Wikitravel) Content communities (e.g. Youtube, Pinterest)	**Space-locators** Travel review websites (e.g. TripAdvisor, Yelp)

Source adapted from Kaplan (2012). With kind permission from Elsevier

- *Slow-timers* refer to applications that are neither location nor time sensitive. A mere transfer of traditional social media applications to mobile applications occurs. The only one new element is the use of a mobile device but no additional value is given due to the location or timing. For example, a user that read a Wikipedia entry;
- *Quick-timers* concern traditional social media applications that "go mobile" but in this case, in order to improve immediacy. For example Facebook, Twitter, or Linkedin have mobile applications with the intention to give their users the opportunity to interact real time with their networks of friends or colleagues;
- *Space-locators* refer to applications that consider the exchange of messages with particular reference to one specific location but the message can be read also by others in a subsequent moment. An example is TripAdvisor where travelers can publish their reviews about a specific place (a hotel, a restaurant, etc.) but they do not expect an immediate response to the message;
- *Space-timers* are the most sophisticated form of MSM applications because they take into account time and space simultaneously. In this case, one specific location and one specific point in time are relevant for the message exchange. Foursquare and Facebook Places are suitable examples for this category. Users who "check-in" in a certain place (i.e., a restaurant, a hotel, etc.) want to communicate with their friends their location at that time. Foursquare has 45 million users and counts all over the world 5 billion check-ins.[7] Recent statistics on social media in U.S. (Nielsen 2012) classifies Foursquare in third position after Facebook and Twitter. Obviously, even though the distance respect to

[7] Foursquare is a location-based social network for mobile devices (e.g., smartphones). Users can "check in" in a place nearby, on the basis of GPS software provided by the mobile device. Moreover users can post messages, photos, recommendations, etc. Each check-in awards the user points to obtain "badges" (e.g., adventurer, explorer, etc.), discounts and special offers. Foursquare provides specific business services for firms (e.g., advertising) and statistics. For more insights see http://www.foursquareitalia.org/2013/12/20/2013-fine-anno/.

these two other social media is yet remarkable, Foursquare has shown a growth respect to 2011 of 118 % of users. According to another report (PewResearchCenter 2013) Instagram seems to be the most engaging social media: 63 % of Facebook and 57 % of Instagram users log in daily.[8]

However, if we apply the proposed classification, we may notice difficulties of interpretation. Instagram and Flickr, for example, are applications that allow to take visual content (photos and videos), and immediately (if set as automatic) to share them on various social media (e.g., Facebook, Twitter, Foursquare, etc.). Users can customize the mix of social media where they want to publish their visual content and can opt for real-time sharing of the location with the network of friends. These new location-based services and real-time functionalities make Instagram and Flickr more similar to space-timers rather than to the category to which other content communities belong (slow-timers). Facebook Places itself it is none other than the improvement by Facebook of location-based services for users.

Due to the proliferation of new applications that offers location-based services, the "Foursquare model" is changing toward a more "social" direction. This is confirmed by the launch in May 2014 of the new application Swarm that has consolidated all the functions of sharing and check-ins.

We can notice an ongoing differentiation trend of new vertical applications that offer geo-localization. Many new operators are in some ways related to the travel business that is one of the most represented sectors.[9] Indeed, by now almost all main travel mobile applications ask for the users' location in order to provide location-based services such as find services and friends nearby, look at rankings and ratings, read recommendations and share user-generated content (e.g., TripAdvisor, Expedia, etc.). Moreover, also navigation services are moving from the basic service of "providing directions" to more "social" functions that allow users to find friends nearby (e.g., Waze). Therefore, we remark that kinds and scopes of mobile social media applications are rapidly changing. Further research will help to identify the future directions and classifications trends.

5.4 Mobile Social Media Marketing in Tourism

In a context where social media is driving the power toward consumers, the proliferation of mobile social media, especially of space-timers, might return some of that power back to companies (Kaplan 2012).

Travel companies are increasingly dealing with travelers who use more than one device at the same time (mobile and not mobile) for travel planning. It is called "three screens" because individual while having a mobile device on hand, watch TV,

[8] This report does not consider the mobile social media Foursquare.

[9] According to Foursquare: see http://www.foursquareitalia.org/2013/12/20/2013-fine-anno/.

use a tablet, and maybe also a laptop. This behavior has become an integral part of consumer routines, especially for the activity of social networking (Nielsen 2012).

Although the percentages can be slightly different on the basis of age (young travelers prefer to use smartphones while young adults and adults prefer tablets), the time spent planning and experiencing leisure travel in the mobile environment by tourists is increasing (PhocusWright 2013). Moreover, as examined in the previous section, location-based services are considered more and more important by travelers. Therefore, tourism organizations should take seriously into account which kinds of actions to develop in order to exploit this opportunity.

Even if smartphones and mobile devices allow connecting to the company website through the Web, the optimization of the website for screens of mobile devices and the creation of specific mobile applications turn out to be particularly important. In the first case, the company will develop a mobile version of the website that contains generally less content, but selected on the basis of the users' needs, and that allows consulting easily information on a mobile screen. In the second case, the travel operator will create a specific mobile application for Apple, Windows Mobile, and/or Android, that can be downloaded free or on payment. For example, many airlines have mobile websites studied to be easily accessed for basic operations such as booking and check-in for a flight. At the same time, airlines have also mobile applications with similar purposes. The main difference is that the application is downloaded into the device creating a direct connection between the firm, the brand, or the product and the traveler, without necessarily entering in a browser.

However, considering that tourism is a temporary activity, travelers may prefer to simply connect to the website instead of downloading all the applications of single services in the area. For example, people that travel a lot by train or loyal customers may prefer to download the application of the transportation company to easily access, find information on the schedule, and record transactions. On the other hand, a traveler that uses the train only during holidays might prefer to find information online (web/mobile) on the website, without creating an account.

Independently of the decision to develop or not a mobile application, travel suppliers can exploit specific features of mobile social media in order to improve market research, communication activities, sales promotions, and relationships (Kaplan 2012).

First, Mobile Social Media (MSM) provide additional information about customers that consent to share the location. Statistics related to the number of check-ins per day and per time of the day, and comments, combined with users' profile information and sophisticated data mining techniques, enable companies to further refine segmentation and service differentiation. For example, knowing the moment of the day the customer visits the restaurant, a firm could promote specific services on Foursquare in the sections about offers. A loyal customer who every Friday has dinner at the same restaurant might appreciate a notice about the special menu of the day.

Second, MSM represents a way to communicate with customers. Being able to identify people that are nearby, tourism organizations could decide to communicate

upcoming events of the day (e.g., a concert, a festival). A hotel could update their guests with a list of "the best things to do today" on the basis of their location. Moreover, customers could be informed about possible activities organized at the hotel. By means of these kinds of actions, MSM can represent an instrument to engage users and generate viral content.[10]

Third, mobile tracking and location-based services allow customizing promotions according to both the location and the time period. For example, in occasion of a special event, an airline in partnership with other tourism operators of the destination could employ MSM in order to incentive specific services through specific vouchers. Lufthansa, for instance, created a promotion on Foursquare for travelers participating to Oktoberfest. The Museum of Modern Art of New York (MoMA) during the exhibitions "Henri Labrouste e Le Corbusier" organized a treasure hunt about New York architecture. Some itineraries were organized and the 21 stopovers were registered as venues on Foursquare. MoMA gave clues by Facebook and Twitter and people who checked-in at the venue received a discount of 5 $ on the Museum ticket.

Fourth, travel operators could enhance long-term relationships with customers. A firm could award customers after a determined number of check-ins with the status of "mayor" of a place. This could be linked to special benefits like free services, discounts, etc. A company could also decide to link its loyalty program to Foursquare, in this case providing additional benefits, reward points, or specific badges. Starwood Preferred Guests was the first hotel fidelity program to be combined with Foursquare and guests who checked-in at a hotel of the group obtained various benefits (e.g., discounts, free stays, etc.).[11]

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[10] For more insights about viral marketing see Chap. 4.

[11] This is an example of the so-called "gamification" an emerging trend that implies "using game-thinking and game mechanics to engage an audience and to solve problems in a non-game context" (Xu et al. 2013).

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