

A Framework to Promote and Develop a Sustainable Tourism by Using Social Media

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Abstract. The paper provides a framework which involves different Social Media (such as Social networks, Wiki, Podcasting, Blogs and Really Simple Syndication) able to promote and develop a sustainable tourism in a shared and participatory approach. More in detail, the paper starts from an analysis of the tools used in the old and the new economy, by highlighting the technological tourism trend. Then the paper illustrates how Social Media can develop a sustainable tourism involving both tourists and local communities. Finally, future scenarios of virtual tourism are given.

Keywords: Social Media, Virtual Tourism, Sustainable Tourism, Social Networks.

1 Introduction

Tourism is one of the world's largest economic fields, which continues to grow very rapidly. It represents an opportunity of development for many countries, but it can also have very negative impacts on social structures, socio-cultural authenticity of host communities and natural and cultural heritage.

Sustainable tourism, according to sustainable development, aims at minimising the cons of tourism and maximize the pros [1]. Sustainable development is "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987). It empathizes the use of environmental resources to minimise the ecological impacts. Moreover it allows respecting the socio-cultural authenticity of host communities and improving the economy of local communities reducing poverty [1].

In this context, the new tourism trends are represented by the tourists' search for sustainable tourism using the Internet and mobile technologies [2]

Every year, millions of tourists use the Internet to find tourism information about vacations, flights, guides, last minute proposals, cruises, destinations, routes etc. The Web affirms itself as a relevant reference and a necessary resource in all professional fields, also in the field of tourism for both customers and companies. It allows the speed for information exchange, the development of interaction among people that are located in different places, the sharing of information, knowledge and services among

all users, the competitiveness of prices and the possibility for companies to widely differentiate the offer and reach the market niches, real time services every time and everywhere [3]. But how can Internet and the new technologies develop sustainable tourism? A very important role in answering this question can be played by Social Media; in fact, they enable people to interact via communication media such as forums, blogs, virtual communities for exchanging information, experiences and sharing interests. People use Social Media to search new and unique contents, uncontaminated places, a kind of “discovering tourism”, not commercials and far from mass-tourism. However in order to develop a sustainable tourism, it is necessary to involve both tourists and local communities to build a useful communication and cooperation. People living in historic centers, near archaeological sites or close to natural protected areas can play a key role in the conservation and promotion of those resources, promoting a sustainable tourism by using Social Media.

Starting from these considerations, the aim of the paper is to provide a framework that involves different Social Media (such as Social networks, Wiki, Podcasting, Blogs and Really Simple Syndication) which will be able to promote and develop a sustainable tourism. The framework involves the needs of both the “consumers” (tourists) who search for information about nature and culture tourism and the “producers” (local communities), which promote the local territory, the cultural traditions and the environment, in accordance with sustainable development.

This paper is organized as follows: Section 2 introduces the technological tourism trends. Section 3 analyses Social Media in the field of tourism. Section 4 describes the Framework proposed to promote and develop sustainable tourism. Section 5 delineates future scenarios for a sustainable tourism. Section 6 concludes the paper.

2 Technological Tourism Trends

The trend of tourism in the last fifteen years has been represented by the transformation from “old economy tools” into “new economy tools”. “Old economy tools” such as travel agencies, paper guidebooks, television, promotions in external place and magazines present several limitations for tourism services in terms of: the type of the message they can deliver; the size and quality of audience that they can reach; the measurability of their impacts and costs involved. Moreover, contents in paper guidebooks could be outdated and many hotels and other tourist activities may no longer exist. The development of “new economy tools” represented by Social Media provides distinctive advantages that are more appropriate for tourism services such as the possibility for users and local communities to:

- create creative messages: thanks to the use of multimedia features (pictures, video, 3 dimensional worlds) tourists can test the tourism service before they buy it or travel to it.
- establish synchronous and asynchronous interactive communication to exchange travel information.
- reach international audience.

- easily track and monitor the impacts of tourism on-line services through the number of website visits, click thoughts, amount of time spent on the website, unique visitors, number etc to measure and improve the return of investment.
- create real time and multi-channel distribution of tourism services.
- create more effective marketing segmentation of travellers.
- provide a cost effective customer support 24 hours per day and 365 days per year.

Different studies analyse the evolution from “old economy” to “new economy” tools. In their research Schwabe and Prestipino [4] compare paper guidebooks to on line tourism communities to understand how the information quality and consequently the travel quality are improved.

A very good example of the transformation from paper guidebooks to Social Media is also provided by Stockdale and Borovicka [5]. The authors analysed how an historical brand for travel guidebook as Lonely Planet has also become an important reference site for online tourism community. Even if the site is active since 1994, it gained great consideration after the 2004 tsunami, when it became the principal reference site for missing people in the devastated countries. Now the concept of Lonely Planet as an information and community site for tourists is strong all over the world.

Many Social Media can be used to offer tourism services such as Social networks, Wiki, Podcasting, Blogs and Really Simple Syndication.

Social Networks have the great potential to serve ubiquitous information and communication needs. This applies especially to the tourism field where the need for information, communication and services is deeply felt.

Among worldwide travel social networks the most famous and visited ones are Tripadvisor, Virtualtourist, Gusto and TripIt. They enable tourism organizations and local communities to communicate with tourists to share travel experiences [6]. This can significantly inspire travel and boost one’s willingness to visit places. An example is the social networking of Sheraton’s website where users can upload their stories, experiences, videos, pictures, and comments and share them with other website visitors. Social networks can also support and enhance the promotion and adoption of sustainable tourism among all tourism stakeholders. An example is www.wayn.com a social network connecting and enabling interactions among local communities, travelers and tourism firms.

Wiki is a Web-based application that allows users to add content supporting collaborative writing, opening discussions, interaction and Web-authoring [7]. Thanks to wiki, anyone can write anything about a place, a city or a country, and can read everything, or improve what is already written. Wiki is the most important example of collaborative online community applied to tourism. It gives every traveler the chance to share their own experience with other members and collaboration, activeness and loyalty to the site is guaranteed. The most famous example is Wikitravel, a project to create a free, complete and updated worldwide guidebook (www.wikitravel.org). Many travel agencies take the opportunity to promote and create links to their websites through wikitravel.com to create and direct drive traffic to their own websites (an example is <http://wikitravel.org/en/London>).

Another important kind of Social Media, is represented by podcasting that refers to the uploading of video and audio files by users on websites. The most popular website for sharing audio and video contents is youtube.com. Many tourism organizations use podcasting as a customer communication tool. Some examples are the Jumeirah hotel that uploads podcasts on its website to update and deliver to its potential guests information about what is happening in its properties every day and the Orbitz.com a site that provides podcasting of many destinations that travelers can download and use as guides while visiting the destination.

Regarding blogs, they provide a forum for communication, collaboration, knowledge building, information gathering and publishing. In the blog every author talks about her/his own favorite topics, and it is easy to quote other's news or opinions in this way; for example, a list of travel blogs links each other to compose a thematic travel network. Blogs are becoming a useful tool for local communities to get more involved in destination marketing and to communicate with tourists. The participation of local communities can ensure a better blend between locals and travelers thus enable multi-stakeholder communication and understanding in tourism decision-making activities. Several examples of travel blogs exist in the tourism industry, such as travelblog.org, tripadvisor.com, hotelchatter.com, igougo.com.

The Really Simple Syndication (RSS) is a Web feed formats used by users to subscribe to a webpage to receive new content and to allow the creation of links and interactive communication among other Web 2.0 applications and users. Travel organizations use RSS to keep a communication with their consumers and to send them programs of cultural events organised in particular places. An example of RSS is visitdublin.com that include several specialised RSS feeds (for music events, last minute deals, etc.) to which any user can subscribe to receive automatic updates.

3 Social Media in the Tourism Field

Social media are deeply changing the way tourists search, find, use and collaboratively produce information about tourism. In Social Media, people can share reviews of hotels, restaurants and/or attractions and speak about good and bad experiences, provide or receive information and share knowledge and services. An example of Social Media that today are used by consumers are Virtual communities (VCs).

Rheingold (1994) [8] defines VCs as: "...a social aggregation that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form Webs of personal relationship in cyberspace. A VC is a group of people who may or may not meet one another face to face, and who exchange words and ideas through the mediation of computer bulletin boards and networks".

According to Preece [9] members are the first element of a VC and it is fundamental to understand their needs. In fact, the elements of a VC are: people who communicate with each other to satisfy their needs, shared interests and common purpose, rules of communication between the community itself, technological applications and protocols that allow this process.

VCs can represent also a good business opportunity, in particular in the field of tourism. Since 1997, VCs has been considered by Werry [10] as the centre of every business model of commercial Internet. Traditional business models are now turned

into community environment. Hagel and Armstrong also see in a business model VCs, because “What starts off as a group drawn together by common interests ends up as group with a critical mass of purchasing power, partly thanks to the fact that communities allow members to exchange information on such things as a product’s price and quality” [11].

Timmers considers VCs as a business model in which “the ultimate value ... [comes] from the members (customers or partners) who add their information ... ” [12].

Virtual Travel Communities (VTCs) are particularly relevance in the field of tourism.

According to Buhalis & Law [13] VTCs have become popular since they provide potential tourists with up to date, personalized and user-generated content, including trust-worthy reviews and recommendations.

Armstrong and Hagel [14] stated that VTCs provide four different benefits to its members: transaction, interest, fantasy, and relationship. Transaction refers to the action of purchasing airline tickets and making hotel reservations; while the community of interest refers to the opportunity for members to share information and experiences. On considering the community of fantasy this indicates the hedonic features, such as a game or an event, while community of relationship allows members to find their travel companions for a trip.

In their study about VTCs, Wang, Yu and Fesenmaier [15], show that since tourism is traditionally studied referring to geography, location and space, it is noticeable that tourism-marketing organizations are missing skills in how an online community can be used as a marketing tool. People can obtain a lot of benefits by joining the community depending on different nature of community and the various characteristics of community members. Many people want to make efficient business transactions and interact with other people. Many other people want to have fun, meet fellow traveler and express their own opinions. Each one wants to develop a sense of belonging, to express their cultural and economic interests and establish relationships.

Moreover, Wang, Yu and Fesenmaier [15] analysed the needs of VTCs related to tourism organization marketing. They individuated three main classes of needs: the functional, the social and the psychological one, that include transaction, information, entertainment, convenience, value, relationship, interactivity, trust, communication, escape among humans, identification, engagement, sense of belonging, relatedness and creativity.

Wang and Fesenmaier’s study [15] only considers the needs of the “consumers” (tourists) that search travel information. However, in order to develop a sustainable tourism it is also important to consider the needs of the “producers” (local communities) that want to promote tourism marketing.

The “producers” can give important information about a particular territory, not because they have visited it as tourists, but because they were born and still live there: many of them provide tourism services. They know the real community and its cultural, social, economic and services perspectives. In the field of tourism “the producers” can play a very important role for the members satisfaction.

In the next section, in order to improve the study of Wang and Fesenmaier’s [15], a framework that combines both the “consumers” and the “producers” needs which are important to consider to develop a sustainable tourism, is provided.

4 A Framework to Promote and Develop a Sustainable Tourism

Tourism can contribute to the socio-economic development of a country. People are more and more attracted by an high environmental quality. However, environmental resources are limited. That is why a lot of organizations, companies, administrators and citizens invest in a sustainable tourism. This kind of tourism is based on the safeguard and respect of the environment and local traditional culture. Currently, there is a great interest to promote the territory and safeguard the environment and the culture of the different countries; several websites promote this kind of tourism (e.g.: ecotourism.org, sustainable tourism.net, ecotourism.cc) but many of these websites only consider the needs of “consumers” without paying attention to sustainability; social media allow a more participative action also by involving the local communities living in particular places of interest, which can give important information for positive outcomes.

Brunt and Courtney [16] stated that the attitudes of community towards the impacts of tourism should be an important issue for planning and policy considerations for sustainable tourism projects. The communities’ involvement in the tourism process is fundamental to maximise socio-economic benefits of tourism for the community [17] and to improve the awareness of common shared behaviours in order to adopt behaviours in coherence with sustainability goals.

In order to achieve this aim, a framework based on different Social Media (such as Social networks, Wiki, Podcasting, Blogs and Really Simple Syndication) that “consumers” (tourists) and “producers” (local communities) can use to exchange information and knowledge is provided in Figure 1.

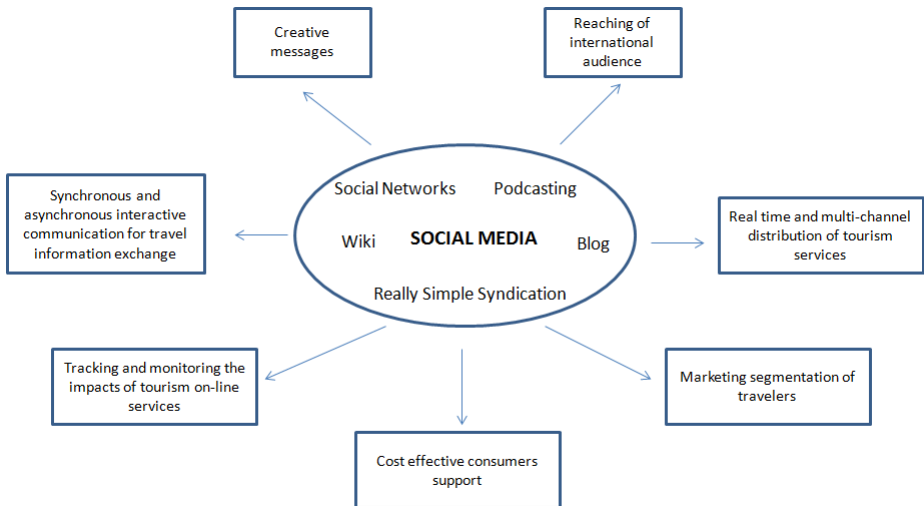


Fig. 1. A framework to promote and develop a sustainable tourism

The framework gives “consumers” the possibility to create creative messages and establish synchronous and asynchronous interactive communication for the exchange of travel information by satisfying their functional, psychological and social needs. As said before travelers are changing the way of doing tourism: while in the past there was a strong question about organized tourism, package deals (all included), today people are searching for a new kind of tourism linked to undiscovered places and cultures. Therefore, the framework represents a chance to create innovative contents that can be integrated and shared.

Moreover the framework involve the “producers” of information who have the opportunity to create creative messages by reaching an international audience. Moreover producers have also the possibility to easily track and monitor the impacts of tourism on-line services and create real time and multi-channel distribution of tourism services and also a more effective marketing segmentation of travelers. Finally they can also provide a cost effective customer support 24 hours per day and 365 days per year.

In the framework, each user can dynamically change her/his role and a producer can become a consumer (and vice-versa). That is, each user lives in a place that can have particular traditions that s/he is interested to promote and to share with other users of other places. The role of users can change so that, for example, a producer can be interested to search or to discover and visit new places, then in turn s/he becomes a consumer. Consumers can use information and promotion that other producers have given and they also in turn can become producers providing information about their own country. The users are interested to promote their culture, their local products and also to acquire culture and products of other people introducing a symmetry in the community.

Exchanging information and knowledge between consumers and producers represents an opportunity to improve the vitality and the economy of a country. According to [18] when people travel they have a chance to see real problems and electronic support may give them an occasion (even after return home) to participate in social help/support or projects developed in places already visited or in locations where the tourists plan to go. This concept applied in the case of sustainable tourism, can enable both tourists and local communities, by using social media, to:

- promote the territory and the sustainable tourism,
- share information aiming to build the wide awareness of sustainable behavior,
- improve the local economies,
- socialize with other distant people,
- reinforce the sense of belonging,
- produce added value to products of a place,
- characterize thematic itineraries, fairs that distinguish a country,
- create new job and new opportunities,
- create and share new services improving the quality of tourism,
- stimulate the development and innovation.

All these elements can remove the risk of cultural marginality or isolation because they represent an opportunity for cultural exchange and a possibility to integrate local knowledge into social, economic and cultural development.

5 Future Scenarios for a Sustainable Tourism

In the next years, a future scenario for tourism is evolving in a tourism which includes both systems to visualize data and information about travel social network and their dynamics considering location, time and classes of interests and virtual services and tours.

The visualization systems for travel social networks will provide a spatial representation of individuals or groups of individuals that share specific interests in order to support people during making travel. Moreover, they will allow exploring information about the changing of interests for typology of tourism of the travellers and the evolution of comparing the sequence of temporal layers, supporting also Tour Operator to plan better services and travels [6].

Another scenario is represented by virtual travel. It can also represent an opportunity, offering entertainment media with the travel experience without a physical journey to a remote destination. It is logistically and financially easier to visit virtual worlds than to make real trips.

Virtual travel can be a preparation to a real visit or an option if time, distance or money prevents people from physically travelling.

These forms of virtual tourism can help people who cannot move because they have problems of disability, or political or financial reasons.

In the future virtual trips may become a very important challenge for sustainable tourism. Virtual tours can help preserve environments that are in danger of losing their natural and cultural identity from an invasive and destructive tourism. In fact, "Virtual Stonehenge" or "virtual Tibet" projects are born with this objective.

There are numerous non-profit websites, such as "The Grand Canyon Explorer," which provides for example virtual tour guides, or educational sites that teach the history, the environment and the culture of a place through a virtual travel.

The digital images are accompanied by texts interpretations that conceptualise the natural environment; the texts also provide an essential characteristic movement of tourism.

The web-cam on the Internet provides digital images in real-time of the Grand Canyon National Park, accessible at anytime and anywhere, reaffirming the ubiquitous "eyes tourism" [19]. Travelers can also make purchase in various digital souvenir shops, to make their virtual experience more real.

Speaking of virtual environment Milgram et al. [20] have coined the term "mixed reality" (MR) environment, where real and virtual are mixed to any degree. Other features are the interactivity in real time and the existence of three dimensions [21]. An example of augmented reality is the virtual guide, for example in the virtual environment Bruges in Second Life, when the avatar looks at a building, real world information and pictures about the real world city are shown in the HUD (Heads-Up Display). Another example of augmented reality in real world are the guides in a real world museum, where visitors can hire a walkman with the description of the paintings or the sculptures when they walk [22].

In the future the development of these virtual technologies could change the tourist experience. Virtual worlds will become increasingly similar to real ones: the 3D dimensions, the smells, the sensations will improve the virtual tourism experience of disable people. Moreover, the virtual tourism experience increases the interest to

see the original places. In case the special original sites have to be protected, the virtual trip can be a substitute to see those places, sustaining the sustainable development.

6 Conclusion

This paper analyses the new frontiers of tourism and sustainable tourism using social media. In the first part of the paper the technological tourism trends have been discussed. In particular the paper analysed the transformation from “old economy tools” such as paper guidebooks and travel agencies, into “new economy tools” such as Social networks, Wiki, Podcasting, Blogs and Really Simple Syndication.

The paper then provided a framework that involves different Social Media which are able to promote and develop sustainable tourism. The framework considers the needs of both the “consumers” (tourists) that search information about nature and culture tourism, and the “producers” (local communities) that promote their local territory, cultural traditions and environment, in accordance with sustainable development. The framework, involving the different social media, aims at promoting the differences of the various places as well as their rich historic, environmental and cultural heritage. The framework also helps the sharing of information, knowledge and services, and to build a common feeling on sustainability, attracting tourists out of traditional tourism circuits to respect the environment. The opportunity of business is both for local administration because it can develop the economy of the territory and, local people who will participate to sustainable development of their country and will have many social and economic advantages. The participatory approach promoted by the use of social media according to the described framework allows to obtain an optimization between the needs of the travelers and the local communities in a sustainable development. Finally, future scenarios of virtual tourism have been discussed in the paper.

Future works will provide experiments to validate the proposed framework, according to social, cultural and economic users’ needs.

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