m-Tourism 2.0: A Concept Where Mobile Tourism Meets Participatory Culture

Pedro Beça, and
Rui Raposo

Dep. Comunicação e Arte, University of Aveiro, Portugal
{pedrobeca, raposo}@ua.pt

Abstract

Technological convergence has contributed to the emergence of a great variety of research niches in academic and economic areas with an ever-evolving transdisciplinary essence. In this convergence context, which is not dissociable from concepts such as innovation, creativity, competitiveness, sustainability and participation, tourism has also come across multiple challenges and changes in its relation with Information and Communication Technologies (ICT) and has been able to embrace it and its use as critical key issues when looking into the near future. The shear concepts used to describe the integration between ICT and tourism, such as e-Tourism and m-Tourism, are at a point where it is questionable if they are suitable for including and describing, at a detailed level, the influential role played by social media and participatory culture in technological mediated scenarios. This paper proposes and describes the concept of m-Tourism 2.0, based on the above mentioned concepts, presents current trends in the use of mobile devices, social media services and inherent participatory culture issues, as well as ongoing research.

Keywords: m-Tourism 2.0; e-Tourism; m-Tourism; WEB 2.0; Social media; participatory culture;

1   Introduction

Activity in the tourism sector has, in recent years, kept a continuous growth and is currently the largest industry in the world (Yueh, Chiu, Leung, & Hung, 2007). According to the World Tourism Organization, it is predicted that, by the year 2020, international tourism trips will reach a 200% increase (UN World Tourism Organization, 2008), a rate somewhat farfetched for some of the more common economic sectors. It has become a world wide highly competitive business and, as in other economical sectors, the integration of Information and Communication Technologies (ICT) in its activities has become a major concern to be dealt with due to the competitive edge gained with its correct use (Yueh, et al., 2007). This integration has enabled a shift in the tourism industry, both on a service and on a product level, which is clearly noticeable in activities such as planning and buying vacation packages or even in the way products are promoted and sold. This context of direct ICT integration sets the baseline for the concept of e-Tourism, which was first presented as an initiative of the UNCTAD's with the goal of promoting the development and use of ICT thus enabling countries with the tools to promote their tourism related products (United Nations Conference on Trade and Development,

2002). Within the context of e-Tourism there has been an effort to resort to increasingly innovative technologies and, whenever possible, closer to the tourists' everyday habits. On this issue eyes have turned to the relevant use and, sometimes omnipresent existence of mobile devices which have gained an indisputable importance in our lives in part due to task-related reasons and their ever increasing portability and energy autonomy (Pinheiro, Meiguins, Meiguins, & Almeida, 2008) thus making them almost always available for information access and communication. Personalization is yet another important feature, and advantage as it allows the tourists to adapt the information provided and accessed to whatever they feel is more suitable for their case. The sum of these tourism related interactions based on mobile devices is what may be understood as the concept of m-Tourism (mobile tourism), well documented in work from Huijnen (2006), discussed from a evaluation and usability design point of view by other authors (Kimber, Georgievski, & Sharda, 2005) and illustrated in Fig. 1. It has found its application in various tasks such as: navigation support for journeys; and access to more detailed maps and additional information about points of interest (POI), the weather, shops, restaurants, etc.

2 Web 2.0 and Participatory Culture

Apart from these concepts, is also worth looking into the Web 2.0 phenomena, and with it the uncountable amount of social media applications and services constantly spawned, because it has altered the way the user acts, interacts and reacts with or towards content. Personalization is a key issue in the Web 2.0 and this means that the user is no longer passive but active, and he is no longer just a consumer but also a producer. The term prosumer (Bandulet & Morasch, 2005; Hao, Wei, & Wenjing, 2008; Toffler, 1981) has been widely used to define this type of user and, in the tourism context, user related activities have gained notoriety both in the commentating on information made available online, and in the creation of new content made available online in personal or community websites like Tripadvisor, blogs or online community profile pages such the ones on Facebook or MySpace. This change in tourist participation has also led to changes in the way tourism companies interact with their costumers and have led to client centred products (Hao, et al., 2008) developed with the collaboration of the final consumers. Currently, the Tourism 2.0 concept, illustrated in Fig. 1, is already widely used in defining these online prosumer related activities, which have, for instance, led to profound changes in the way people plan their trips. It is now perfectly common to look-up real tourist experience-based information about things like hotel accommodation, holiday packages and excursions before purchasing any of these products.
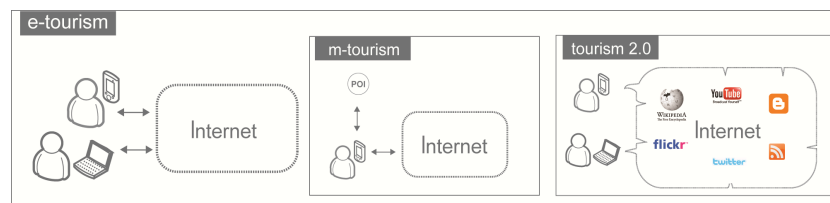

Fig. 1. e-Tourism, m-Tourism, e Tourism 2.0

However, this participatory behaviour has still fell short in the m-tourism context where the majority of services and content are completely closed to any external intervention. A research done by the European Media Laboratory in the "*Creation of User-friendly Mobile services Personalized for Tourism* (CRUMPET)" project (European Media Laboratory, 2003) assures that 78% of m-tourists believe that mobile services in tourism are an added value and 60% are even willing to pay for those services. Despite the fact that m-tourism services are becoming increasingly available and integrated in a cross-platform manner, many of them are still not tourist orientated (Tan, Goh, Theng, & Foo, 2007), which means that the users feel that the solutions provided to not meet their particular needs. These limitations include: limited access to POI related multimedia content; cross-platform related problems which do not allow the user to use the same mobile device for all the services provided (Fuschi, Bo, & Saadia, 2005); different communication system specifications according to indoor or outdoor contexts of use; limited, if not inexistent, thought concerning the creation and promotion of communities with access to content based on user participation (Economou, Gavalas, Kenteris, & Tsekouras, 2008).

3 m-Tourism 2.0

A quick scan of recent work done in this field suggests that, within the m-tourism context, until now the core issues researched are related with interaction design and its intrinsic concerns such as usability, accessibility and the search for the flawless ubiquitous system (Bortenschlager, Häusler, Schwaiger, Egger, & Jooss, 2010; Canadi, Höpken, & Fuchs, 2010; Kimber, et al., 2005). What is suggested in this paper is that, with the aid of what is known from the Web 2.0 experience, participatory culture should also become a core research issue thus granting the possibility of exploring what is beyond what is suggested by the tourism industry. The concept of m-Tourism 2.0, illustrated in Fig. 2, establishes as one of its cornerstones the need for solutions which allow the tourists to communicate their perspective of what they are feeling and experiencing in any given moment and being able to share that information with someone who, may or may not, use that information for their own benefit. In Fig. 2 the tourists, either with the use of their laptops or mobile phones, when trying to access multimedia content (text, photos, videos, audio) about a POI, will be presented with K, which is the content provided by the tourism authority responsible for that POI, plus C, which is the content provided by the tourists linked to the community and tailored according to the tourists profile preferences. The $(i)^n$ is basically the information provided by the community of users onto the system, which will be moderated, filtered and correlated before being added to K and shared with other users. With these contributions it is expected that the tourists will be able to: have access to additional information that may help enrich their experience; have access to new information in case they decide to repeat the experience in the future; provide their own opinions on matters which may at times seem gray, dull or too partial and insufficient from an information point of view; allow them to live a before, during and after experience and share it with others. It may also allow tourism professionals to learn from the interactions and content provided and, in some cases, rethink current strategies, projects, products and services.
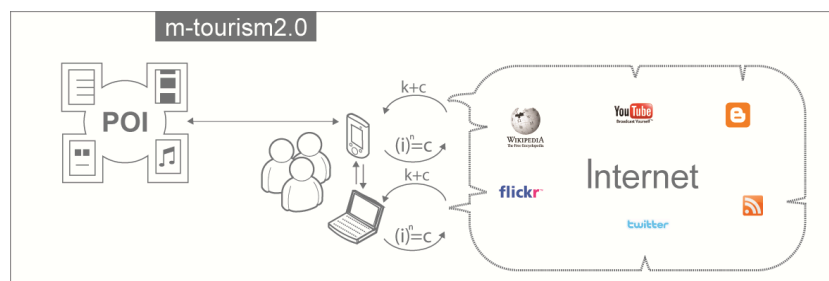
Fig. 2. m-Tourism 2.0

4 Final Considerations

The concept presented in this paper, although still in an initial discussion stage, is already being explored in ongoing research projects at the University of Aveiro. At its core, is believed to be able to drive and guide some of the needed thought about the current and future dynamics established within the tourism industry at a communication, technology and human level. In these areas, the role played by participatory culture must be placed in a foreground position by understanding the importance of the tourist, as a prosumer, both in proactive and reactive activities related with the services and products provided. However, it is believed that this will only be possible if this technological mediated scenario is understood as useful, not only from a tourist point of view, but also as a valid tool for analysing, evaluating and redesigning what is currently provided and what should make its way into new innovative and creative services and products. Further discussion on this concept will undoubtedly provide interesting contributions to the search for ubiquitous and pervasive relations with technology and how tourism may take advantage of the every growing digital literacy in present and future tourists.

References

Bandulet, M. & Morasch, K. (2005). Would You Like to be a Prosumer? Information Revelation, Personalization and Price Discrimination in Electronic Markets. *International Journal of the Economics of Business 12*(2): 251-271.

Bortenschlager, M., Häusler, E., Schwaiger, W., Egger, R. & Jooss, M. (2010). Evaluation of the Concept of Early Acceptance Tests for Touristic Mobile Applications. *Information and Communication Technologies in Tourism 2010*, 149-158.

Canadi, M., Höpken, W. & Fuchs, M. (2010). Application of QR Codes in Online Travel Distribution. *Information and Communication Technologies in Tourism 2010*, 137-148.

Economou, D., Gavalas, D., Kenteris, M. & Tsekouras, G. E. (2008). Cultural applications for mobile devices: Issues and requirements for authoring tools and development platforms. *SIGMOBILE Mob. Comput. Commun. Rev. 12*(3): 18-33.

European Media Laboratory. (2003). *CRUMPET (Creation of User-friendly Mobile services Personalized for Tourism)*. Retrieved 23-05-2009, 2009, from http://www.eml-development.de/english/research/crumpet/index.php

Fuschi, D. L., Bo, G. & Saadia, Y. (2005). Innovative Applications for Content Distribution & Consumption in Tourism & Education Using PDA or Mobiles. *Proceedings of the First International Conference on Automated Production of Cross Media Content for Multi-Channel Distribution (AXMEDIS'05) on Automated Production of Cross Media Content for Multi-Channel Distribution*.

Hao, Z., Wei, Z. & Wenjing, W. (2008). The Mass Customization of Tourism Products Based on WEB2.0: A Collaboration Model by Both Enterprises and Tourists. *Wireless Communications, Networking and Mobile Computing, 2008. WiCOM '08. 4th International Conference*, 1-5.

Huijnen, C. (2006). *Mobile tourism and mobile government - an inventory of European projects.* Retrieved Technical Report, from http://www.mgovworld.org/whitepapersandcasestudies/invenory-mobile-government.pdf

Kimber, J., Georgievski, M. & Sharda, N. (2005). Developing Usability Testing Systems and Procedures for Mobile Tourism Services. *Annual Conference on Information Technology in the Hospitality Industry, HITA 2005*, 12-23.

Pinheiro, S. C. V., Meiguins, B. S., Meiguins, A. S. G. & Almeida, L. H. (2008). A Tourism Information Analysis Tool for Mobile Devices. *Proceedings of the 2008 12th International Conference Information Visualisation*, 264-269.

Tan, E. M. Y., Goh, D. H. L., Theng, Y. L., & Foo, S. (2007). An analysis of services for the mobile tourist. *Proceedings of the 4th international conference on mobile technology, applications, and systems and the 1st international symposium on Computer human interaction in mobile technology*, 490-494.

Toffler, A. (1981). *The third wave*. New York: Bantam.

UN World Tourism Organization. (2008). Tourism Highlights. *Tourism Highlights* 2008, from http://www.world-tourism.org/facts/eng/pdf/highlights/UNWTO_Highlights08_en_HR.pdf

United Nations Conference on Trade and Development. (2002). *ICT and tourism: a natural partnership.* Retrieved 01/05/2009, 2009, from http://www.unctad.org/Templates/Page.asp?intItemID=3609

Yueh, Y. T. F., Chiu, D. K. W., Leung, H. F. & Hung, P. C. K. (2007). A Virtual Travel Agent System for M-Tourism with Semantic Web Service Based Design and Implementation. *Proceedings of the 21st International Conference on Advanced Networking and Applications*, 142-149