

## SOME APPLICATIONS OF THE WEB AS AN INFORMATION TOOL IN THE TOURISM INDUSTRY (Unele aplicații ale Web-ului ca mijloc de informare în industria turismului)

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### Abstract

Tourism is extremely dependent on information and communication industries. This is true all the more in an environment where tourism is a global industry (with some part of the value chain in the country of origin of the tourist and the remaining in the countries that are destinations). According to Kierzkovski et al. (1996) travel is one of the products “natural fits” with interactive media, in which context the Internet may gain particular relevance. In fact, traveling is one of the most popular online activities (Kierzkovski et al., 1996; Jonkheer, 1999; Pröll and Retschitzegger, 2000), with online expenditures rounding 22% by 2007 (NEWSBYTES, 2002). This aspect modifies not only the tourism business models per se, but consumers’ behaviour as well. Using the Internet as a means to promote the tourism organizations reduces dramatically the costs of advertisement. Also the consumer becomes closer to information and asymmetries in accessing the information are reduced. Disintermediation is another phenomenon consequent from the use of the Internet as an information tool. This article gathers relevant applications from different studies regarding the use of the Internet as a powerful information tool both towards the organizations and the consumers.

**Keywords:** • Internet • Tourism  
• Information • Web applications

### Rezumat

Turismul este extrem de dependent de industria informației și comunicațiilor. Acest lucru este cu atât mai adevărat într-un mediu unde turismul este o industrie globală (cu o parte a lanțului valoric în țara de origine a turistului și restul în țările ce sunt destinații turistice). Conform lui Kierzkovski (1996) călătoriile sunt unul dintre produsele ce se potrivesc în mod natural cu media interactivă, în acest context Internetul câștigând o relevanță particulară. De fapt, turismul este una dintre cele mai populare activități online (Kierzkovski et al., 1996; Jonkheer, 1999; Pröll și Retschitzegger, 2000), cu cheltuieli făcute online de aproape 22% până în 2007 (NEWSBYTES, 2002). Acest aspect modifică nu numai modelele de afaceri turistice, dar și comportamentul consumatorilor. Folosirea Internetului ca mijloc de promovare a organizațiilor de turism reduce considerabil cheltuielile cu publicitatea. De asemenea, consumatorul vine mai aproape de informație și asimetriile în accesarea informației sunt reduse. Reducerea intermediarilor este un alt fenomen ce decurge din folosirea Internetului ca instrument de informare. Acest articol reunește aplicații relevante din diferite studii cu privire la folosirea Internetului ca un puternic instrument informațional atât pentru organizații cât și pentru consumatori.

**Cuvinte cheie:** • Internet • Turism  
• Informație • Aplicații web

## Introduction

Tourism product is an intangible one: selling trips is selling dreams. It means that when a consumer decides upon a product, his decision is exclusively made based on information, largely available through the Internet. In fact, according to Kierzkovski et al. (1996) travel is one of the products “natural fits” with interactive media, in which context the Internet may gain particular relevance. In fact, traveling is one of the most popular online activities (Kierzkovski et al., 1996; Jonkheer, 1999; Pröll and Retschitzegger, 2000), with online expenditures rounding 22% by 2007 (Newsbytes, 2002). The United Kingdom, United States, Japan and Singapore are the ones with the highest level of Internet usage for trip planning (Pegler, 2004).

However, even largely available, information about tourism products is very much inflated by the means that the Internet makes it available (Doolin et al., 2002). Having a Web site is an absolute no-brainer to embark on, but it also creates a hurdle: without relevant, understandable and up to date information, Web site data is like all the books in a library, dumped in one big pile on the floor. All the information is there – you just can’t find or use it. “The content of tourism destination Web sites is particularly important because it directly influences the perceived image of the destination and creates a virtual experience for the consumer.” (Doolin et al., 2002). Information systems need to be designed to reflect distributed information sources, and to support different data formats and different business functionalities (Werthner and Ricci, 2004). The consumer needs to look for the information he needs and access the products he needs on his own (Werthner and Ricci, 2004). Those are

the main advantages of using the Internet for travel research. Moreover, it must turn possible to detect the preferences of consumers and customize the tourism Web sites’ contents and products to meet those preferences (Law and Leung, 2000; Doolin et al., 2002). Although a tough task, the challenge for the managers is to make the information and communication services through the Web more usable for every citizen. According to (Shneiderman, 2000, p. 85) “designing for frequent experienced users is difficult enough, but designing for a broad audience of unskilled users is a far greater challenge”.

The goal of this paper is to explore some applications of the Web as an information tool through a perspective of tourism business improvement and consumers’ satisfaction worldwide.

## Some applications of the Web as an information tool in the tourism industry

In their study, Doolin et al., (2002) analyzed an Extended Model of Internet Commerce Adoption, eMICA, in New Zealand. The authors highlight that, as we move to the higher levels Internet commerce adoption of this model, distinguished with focus on interactivity, sites become dynamic instead of static and information management is used more frequently.

The interactivity level is determined by the existence of links to relevant information, web-forms for interacting with the customer, electronic postcards and guest books, search engines internal to the Web sites, search engines for databases, online bookings and secure Internet channels. According to this study, only one of the sites from New Zealand regional tourism organizations reached the highest level of interactivity.

Airlines companies, although using lots of information, are not aware of the potential of information and focus more on quantity than on quality, value and updating of the information (Law and Leung, 2000). For an airline Web site to be successful, it must have, among other items, the necessary product information, including prices and the possibility to order product information (Law and Leung 2000). E-mail is an easy to use and inexpensive technology. E-mail can be considered as the simpler Internet tool for customer service, as states Murphy and Tan (2003). "Odds of one in four of receiving a reply and a minuscule three chances in 100 of receiving a proper e-mail response" (Murphy and Tan, 2003). The staff needs to receive training to answer properly to e-mails. The consumers expect the answer to their e-mails to be personalized, fast and accurate. To accomplish this need, tourism organizations need to make use of e-mail templates.

Along with reducing the barriers of accessing the information, the Internet makes possible the direct communication with the final consumer, which gives birth to disintermediation. Buhalis and Main (1998) referred that disintermediation will affect tremendously the future of tourism. In his study, carried out to draw conclusions on North American travel consumers, Lang (2000) concludes that the Internet is a means for suppliers to enter in direct contact with consumers instead of using intermediaries for the purpose, like airlines and hotels. Consumers using the Internet stated that the most important reason for using the Internet for searching travel information was the "convenient and instant access for availability enquiries and bookings" with 66% of the answers, followed by accessibility of detailed and updated

information (32%). High speed of spreading information through the Internet and the low costs of direct sales are pointed to be the reasons making from the Internet an excellent platform for tourism products' distribution. However, consumers still "need for human interface and personal service". Greatest part of them (77%), although accessing the Internet for more than two years, admits to recur to travel agents in the future. Consequently, travel agents can take an advantage of this situation: they can confirm the information consumers have already searched via the Internet or make further suggestions and increase the speed of sales once the consumer is better informed to choose a product faster (Lang, 2000; Tan and Pearce, 2004). A big disadvantage of going to a travel agent for purchasing a travel product relies on time pressure to make a decision (Lang 2000). In cases like New Zealand, which is seen internationally as an expensive and complex product, consumers prefer to talk to a travel agent for secure advices and secure transactional methods (Tan and Pearce 2004).

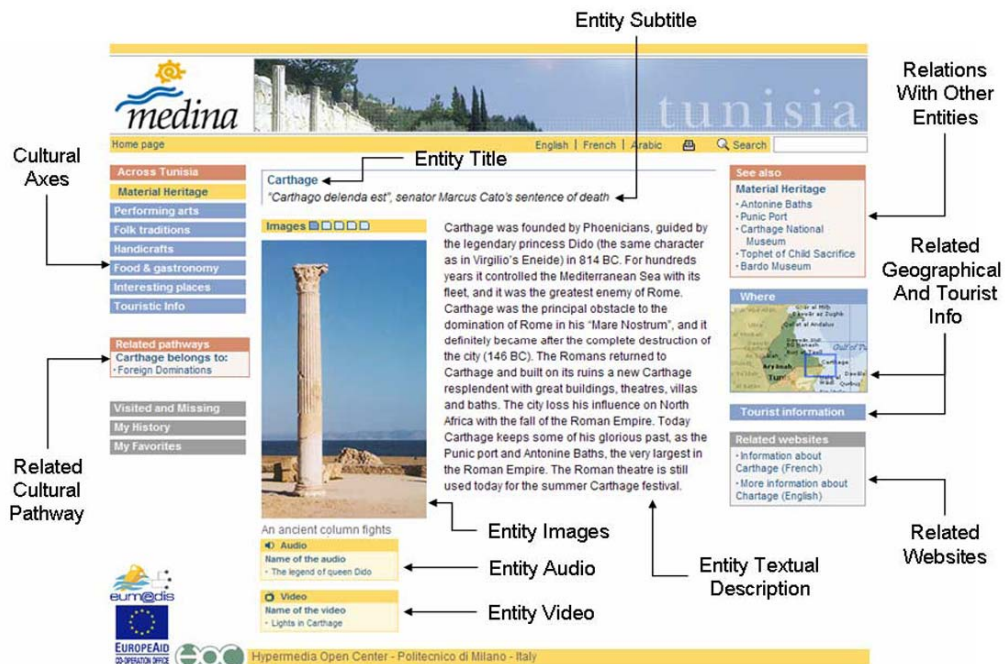
According to the conclusions of a study conducted in the Florida state, United States (Cai et al., 2004), the duration of a vacation stay and the level of expenditure depend on the graphic and verbal representations of the vacation destination. The more contents and channels used to provide the consumers with information on these destinations, the more the sales will increase (Cai et al, 2004). The author defines purchase involvement as "the level of concern for, or interest in, the purchase process triggered by the need to consider a particular purchase". The consumer must be affected and motivated with the tourism products advertisements, as well as interested in the product in order to purchase the product. A framework

relating tourist information search behaviors and purchase decision involvement is presented. The conclusions of the same study revealed that consumers decided their vacation based on the target of the information, the purpose of the information and, finally, layout design and medium selection.

Garzotto and Megale (2005) present a “data-intensive, web-based hypermedia in the domain of cultural tourism”. The aim of project MEDINA (Mediterranean by Internet Access) (figura 1) was to promote cultural tourism through Information and Communication Technologies in the less developed countries of the Mediterranean region. It consisted of a portal that hosts each of every country’s Web sites about their monuments, natural places, gastronomy and other aspects, as well as the

relationship between different countries and their cultures. In terms of costs and time, the portal is a way of reducing these issues because it would be much expensive and slower to implement the project for each country. The framework is reusable and the fact that all countries are integrated in a unique project under the same framework and coordination is cost-effective, an opportunity to focus on the quality of each national site and strengthening of each other’s cultural heritage is made easier. It is very important that the information in distributed systems is well structured in a data format once the information comes from very different sources (Werthner and Ricci, 2004). This was a concern in the MEDINA portal.

Another application is the Austrian tourism information system – TIScover. Initially developed for one



Source: From Garzotto and Megale (2005)

Figure 1 The MEDINA portal

Austrian region – Tyrol, soon was expanded to others and later adopted by countries like Thailand, Germany and Switzerland (Pröll and Retschitzegger, 2000). The system can be accessed in some different ways: via Web, via info kiosks at the destination or via cellular phones. Via Web and in info kiosks the consumer can access various types of tourism information in a geographical hierarchy. Via cellular phones the consumer can access weather forecasts, avalanche conditions and snow reports frequently updated. The potential of mobile technologies is on the possibility for tourism information providers to get more costumers and for costumers to move and still be accessible to the tourism information (Pröll and Retschitzegger, 2000), so reducing the barriers of information access.

## Conclusions

The importance of this article lies on the integrated analysis of some studies which contribute to understand the role of information for the tourism industry worldwide. Some concerns regarding the use of information via Web, the impact of disintermediation on consumers' behavior and the strategies for travel agents to deal with this phenomenon, as well as factors influencing consumers to make a decision on their travel purchases were examined.

Those concerns gain particular relevance in a society that is becoming more familiar with technology, in particular with the PCs and the Internet, leading the tourism industry to deploy the Web in a more accurate, agile and innovative way.

## References

- [1] Buhalis, D. and H. Main (1998). *Information technology in peripheral small and medium hospitality enterprises: Strategic analysis and critical factors*. International Journal of Contemporary Hospitality Management 10(5): 198-202.
- [2] Cai, L. A. et al. (2004). *Tourist purchase decision involvement and information preferences*. Journal of Vacation Marketing 10(2): 138-148.
- [3] Doolin, B. et al. (2002). *Evaluating the use of the Web for tourism marketing: A case study from New Zealand*. Tourism Management 23: 557-561.
- [4] Garzotto, F. and L. Megale (2005). *Towards enterprise frameworks for networked hypermedia: A case-study in cultural tourism*. HT'05, Salzburg, Austria.
- [5] Jonkheer, K. (1999). *Intelligent agents, markets and competition: Consumers' interests and functionality of destination sites*. First Monday 4 (6). Retrieved February 1, 2000, from [http://www.firstmonday.org/issues/issue4\\_6/jonkheer/index.html](http://www.firstmonday.org/issues/issue4_6/jonkheer/index.html)
- [6] Kierzkowski, A. et al. (1996). *Marketing to the digital consumer*. The McKinsey Quarterly 3: 5-21.
- [7] Lang, T. C. (2000). *The effect of the Internet on travel consumer purchasing behaviour and implications for travel agencies*. Journal of Vacation Marketing 6(4): 368-385.
- [8] Law, R. and R. Leung (2000). *A study of airlines' online reservation services on the Internet*. Journal of Travel Research 39: 202-211.

- [9] Murphy, J. and I. Tan (2003). *Journey to nowhere? E-mail customer service by travel agents in Singapore*. *Tourism Management* 24: 543-550.
- [10] NEWSBYTES. (2002). *Post-Sept. 11 online travel deals flourish*. Retrieved February 4, 2002, from <http://www.newsbytes.com/news/02/175480.html>.
- [11] Pegler, B. (2004). *Innovation in the field of market communication and marketing: The Australian initiative*. OECD.
- [12] Pröll, B. and W. Retschitzegger (2000). *Discovering next generation tourism information systems: A tour on TIScover*. *Journal of Travel Research* 39: 182-191.
- [13] Shneiderman, B. (2000). *Universal usability: Pushing human-computer interaction research to empower every citizen*. *Communications of the ACM* 43(5): 85-91.
- [14] Tan, R. and D. G. Pearce (2004). *Providers' and intermediaries' use of the Internet in tourism distribution*. New Zealand Tourism and Hospitality Research Conference 2004, Wellington.
- [15] Werthner, H. and F. Ricci (2004). *E-commerce and tourism*. *Communications of the ACM* 47(12): 101-105.