TOURISM EDUCATION IN FRANCE AND CANADA: ARE UNIVERSITIES INCORPORATING ICT?

The field of tourism was noted at the 2005 Organization for Economic Cooperation and Development (OECD) conference to be global and growing (Keler, 2005). That growth has continued today, with no signs of abatement (Todd, 2008). Globally, international tourists numbered 900 million in 2007 (UNWTO, 2008). This figure is estimated to grow to 1.6 billion by 2020 (World Tourism Organization, 2005) and 1.9 billion by 2030 (Yeoman, 2008). In the two countries (Canada and France) examined in this paper, the tourism industry is important within the economy. Tourism contributes $28.6 billion (CDN) or 9.7 percent of Canada's gross domestic product in 2007 (Hernandez, 2008) and 36.9 million euros or 6.3 percent to France's gross domestic product in 2007 (Ministère de l'Economie des Finances et de l'Emploi, 2008).

The tourism industry in Canada provided over 1.8 million jobs in 2006 or 11 percent of the national economy (Tourism Satellite Account, 2008). Despite France being the number one tourist destination in the world, it represents only six percent of its national income (Tourisme Infos Stat, 2008) and two million jobs (French-Property.com, 2008). It must be noted that these figures are based on different components and therefore may not be comparable.

In both of these countries, as well as globally, the growth in the tourism industry is facilitated by information and communication technologies (ICT), including the Internet (Bloch and Segev, 1996). It is estimated that half the global B2C e-commerce turnover is in the travel and tourism sector (Fodor and Werthner, 2004-2005). With increasing time and economic pressures, ICT is an increasingly important component of tourism today. ICT facilitates travellers who do not have time to visit travel agencies or are looking to save money and travellers who are looking to design their own travel itinerary.

Further, ICT provides an equalizing platform for increasing numbers of tourist destinations, many in developing countries (About UNWTO, n.d.) broadening the competition internationally. This inclusivity is incorporated into the practical environment (Cunliffe, 2008) as discussed by the World Tourism Organization (Tourism 2020 Vision, n.d.).

Given that both private and pubic post-secondary educational institutions are the training ground that readies the graduate for the field of practice; these institutions have the opportunity to connect anticipated actions within society (Gherardi, 2009). In using mock real-life situations, it is found that student professionals are capable of learning at a new level with enhanced understanding (Gold et al 2007). With the emergence of ICT and virtual learning communities (Allan, 2007), the question of the inclusion of ICT in the curriculum of tourism programs is raised.

Education performs two functions. One is the provision of specific, structured skill development that is based on behavioural modification such that the graduate 'fits' into the workplace. Although beginning in technical and apprentice programs, many university programs, specifically those training individuals for the professional workplace, have answered industry's call to make higher education relevant to the workplace. The other function is the traditional purview of universities: training students to think independently, analyze, conceptualize, and innovate. Today, the traditional function to prepare them for the evolution occurring in practice has become blurred with institutions of higher education focusing on the established employment needs of their graduates (Gunn, 1991) and the industry (Bount, Castleman, and Swatman, 2005).

Recognizing the dichotomy of training for an industry that is becoming more reliant on ICT while individual operators often do not recognize the need for ICT, we examine the educational training in e-tourism and ICT of graduates from public and private institutions of higher education in France and Canada. We find that the training provided reflects the status of the industry that has few standards. Thus different institutions interpret the industries needs uniquely. Following this discussion, we present recommendations for the industry and the trainers to establish a minimum standard for employability. We begin with a review of the literature that examines the training available for e-tourism.

Literature review

This paper examines the educational training in e-tourism in France and Canada. Both France and Canada are highly developed nations that attract a significant number of tourists. Travel and Tourism Competitiveness Report 2008 indicates that Canada ranks as 9 and France ranks as 10 in competitiveness

(World Economic Forum, 2009). However in the United Nations World Tourism Organization 2007 ranking, France ranks as number one in the number of visitors, with Canada ranking as 14 (World Tourism Rankings, 2008).

The linkage between the countries comes from the historical migration and ownership of part of Canada by France as well as by the many bilateral relations in trade, arts and the media, science and technology, justice and homeland security, defence, regional cooperation, and institutional cooperation (France in Canada, 2009). Migration continues between the two countries as do friendly and institutional ties. Although there are a number of similarities, there are a number of differences between the countries. The educational system in much of Canada differs considerably from the educational system in France. Global differences are noted in Hofstede's typologies: Canada ranks far lower on Power distance (35) than France (68) and uncertainty avoidance (20 to France 80); scorings on masculinity are higher in Canada (almost 50) compared to France (40) and individuality (80 to France 65) (ITIM International, 2009).

Some differences between the countries directly pertain to the tourism industry. Canada is a much larger country than France, necessitating the use of private vehicles for much of the travel in the destination area. France has a well developed railway system that facilitates tourist travel. France is a much older country than Canada, creating very different tourist attractions. Canada has a more diverse population than France, but France's population is approximately double that of Canada. Thus, these two countries, although sharing much, are very different. Their competition in the tourism industry, although not necessarily direct, still exists because of the physical distance between them. It is not likely that a tourist would choose to visit Canada and France on one holiday. Instead, if visiting France, a tourist might choose to visit neighbouring European countries. If visiting Canada, they may choose to visit the United States if the sheer size of Canada is insufficient.

Despite their differences, the tourism industry in both countries is well developed and global in reach. Part of this global reach is through the e-environment. Although e-commerce is defined as a process entailing the purchase and sale or exchange of goods, services, and/or information using computer networks (Turban et al, 2000), e-tourism does not have an agreed upon definition, except for its use of the

Internet (Kim, 2004). It is generally agreed, however, that e-tourism bridges the e-commerce and tourism environments. However, small and medium enterprises, which comprise the bulk of the tourism industry, have been slow to either adopt or utilize this tool (Braun, 2002; Buhalis, 2003; Main, 2002) despite the demonstrable strength of ICT on tourism (Kuom and Oertel, 1999; Lashley and Rowson, 2005). The reasons for this may lie in the failure of core preparation of its employees (Colins, Buhalis, and Peters, 2003) to work in an electronic environment (Braun 2004; Buhalis, 2003; Evans, Bohrer, and Richards, 2001). This is compounded by the employers' perception that training is a cost, not an investment (Colins, Buhalis, and Peters, 2003), resulting in employers either not providing adequate or any time for training. In true "trickle down" fashion, this results in few websites and ones that are not optimally designed to attract or satisfy consumers' needs and wants. Other tools within the e-environment are similarly neglected, including poor website upkeep and inadequate positioning with search engines. Because many of the operations in this industry are small businesses, these costs are not calculated in the decision of whether or not to train the staff. The result is little demand for ICT training, and a continuing cycle of inadequate ICT usage.

To facilitate training outside educational institutions, Canada has a number of organizations that offer a broad range of training for the tourism industry including Ontario Tourism Education Corporation (http://www.otec.org/site/hosp/index.asp), International Holistic Tourism Education Center (http://www.ihtec.org), and a number of specific college, university, and college programs. France has the French Tourist Office (http://www.francetourism.com/practicalinfo/travelfrancebyboat.htm), a number of rural tourism associations (http://en.toprural.com/asoc.cfm), a national association of tourism offices (http://www.tourisme.fr/), Fédération Nationale des Comités Départementaux du Tourisme (http://www.fncdt.net/), La Fédéeration Nationale des Comités Régionaux de Tourisme (http://www.fncrt.com/index.php?op=edito), Maison de la France (http://us.franceguide.com/), and a number of private and public universities and grande écoles.

Education within the field of tourism has produced relatively few articles (Hyland, 2001; Tribe, 2003) and fewer theories. These include a call for higher education to provide students with sufficient

flexibility for them to accept, encourage, and explore new areas of study, including collaborative trans-disciplinary subjects, that move marginal or unexplored areas to the focus of discovery (Airey and Tribe, 2000; Beardsworth and Keil, 1997; Lashley, 2004). But despite these calls, tourism remains an immature subject area with few applicable or comprehensive educational theories (Holden and Wickens, 2007; Morrison and O'Gorman, 2008). Many of the topics within the tourism literature are similar; simply revising and rehashing these topics (Stergio, Airey, and Riley, 2002). The focus of this literature rarely includes the extensive education literature (Airey, 2001), making any analysis incomplete. Thus, when exploring the topic of general tourism education, it is not surprising to find no core curriculum and no uniform body of knowledge (Scott, Puleo, and Crotts, 2007). Thus, with no recognized core of knowledge, ICT may not be included.

Information and Communication Technology (ICT) and Tourism

Relationships and traditional knowledge are insufficient in and by themselves. An Australian study indicated that without external planning and intervention, specifically regarding ICT, the tourism industry is incapable of capacity building (Holick, 2003). Capacity building is developed in online environments wherein the development of e-commerce opportunities and skills can be developed and enriched (Mitchel, 2003). Thus, ICT education in tourism enhances the development and building of the practice (Colins, Buhalis, and Peters, 2003). Although not generally recognized, the failure of tourism operators to have good web presence and e-commerce capabilities creates a cost (United Nations, 2001).

Unfortunately, this cost is not recognized by many of the small and medium sized businesses in the tourism and hospitality industry. In a recent study, many small tourism businesses continued to rely on manual processes despite the rise of ICT (Lourvieris and Lockwood, 2002) despite the growing body of evidence that e-commerce decreases costs by improving cost-effectiveness (World Tourism Organization, 2001), improving communication, and broadening the customer base if appropriately used (Organization for Economic Cooperation and Development, 2000).

Despite the reluctance to embrace ICT, the field of tourism is not immune from the growth of the e-environment, and, in fact, is being revolutionized both in Internet sales and distribution (Kim, 2004).

This endorses the global communication capabilities of Internet (Lehu, 2000) enabling and facilitating immediate and easy accessibility (Desmet, 2000). This builds on the research finding that the majority of consumers access e-commerce to lower costs in terns of both cash and energy (Bakos, 1991). The increasing Internet familiarity of consumers facilitates price comparisons and purchasing of tickets airplanes, hotel rooms, vacation packages, destination tickets, among other activities. The Internet offers consumers many benefits, including: the easy and simple transactions that are immediate and quickly completed; as well as a wide range of destination and activity options and the ability to compare prices and services. With the increasing competition of tourism organizations, the e-environment is a major marketplace.

To achieve the ease of access, the lowering of costs for the consumer, the immediacy of the results, and the global reach of the Internet (Quelch and Klein, 1996), companies in the tourism sector are advised to construct easy to use and attractive web sites. These web sites ease the distribution of many of products in tourism such as travel tickets, hotel and activity reservations, among others. This e-distribution via the Internet reduces the costs of physical distribution by 50 to 90 percent (Geyskens, Gielens, and Dekimpe, 2003). The websites also facilitate the collection of information and consumer data, communications, and transactions (Raffour, 2002) if appropriately structured. Academics could facilitate by researching into the needs and desires of the public to reveal the effectiveness of tourism web pages and advertising continues to lag on the Internet (Fang and Lie, 2006).

Online access is utilized by a number of larger tourism operators in Europe and North America (Müller-Lankenau, Wehmeyer, and Klein, 2006). Other studies indicate the use of ICT in the tourism industry, particularly the hotel industry, is inevitable (MacVicar and Rodger, 1995). Overall, ICT can perform multiple tasks that are not currently done or that are time consuming. These include, linking the reservation system with management system for more complete and comprehensive data reports (Gamble, 1990); linking the communication system with services (such as room service, ground shuttles, wake-up calls, among others); facilitating the ordering of operational supplies with electronic inventory systems; and, scheduling staff according to the usage rate. In looking specifically at the global hospitality industry,

ICT is noted as crucial to individual hotel's success as witnessed in the growing consumer demands for technology supported services (Lee, Barker, and Kandampuly, 2003) such as Internet connection, access to information, and automated services. But the benefits of ICT extend to the staff's perception of the hotel's employee support system (Lee, Barker, and Kandampuly, 2003). ICT also interacts with staff to improve efficiencies, which then produces competitive advantages leading to increased profitability (Lee, Barker, Kandampuly, 2003). Other areas that are within the scope of ICT include the cross-industry communication and cooperation that is necessary for effective operation throughout the interdependent tourism industry (Palmer and McCole, 2000; Yilmaz and Bititici, 2006). Thus, the use of ICT is extensive within tourism, leading to the question of what is happening in the educational arena.

Information and Communication Technology and Tourism Education

Both the European Union and Canada has recognized the e-environment as important within tourism, a new subject in higher education (Hsu, 2006). Because of this newness, the social constructionist will find the absence of ICT in tourism curriculum is reflective of the academics planning it (Cunliffe, 2008). Perhaps because it is a discipline that is struggling for acceptance within academia or perhaps because tourism resists change as reflected by much of the literature, the needs of the industry are not met by the in-coming students' training (Hsu, 2006), leaving a gap that must be filed. For example, in a study of British business schools, it was found that a course in computers and IT were found in only one of seven schools (Coopey, 2003). It is the intent of this paper to examine the ICT component of tourism education of the students graduating from universities in Canada and France. Hereafter we discuss the methodology used in collecting the data for this study.

Methodology

The topic of ICT in tourism education in either France or Canada is not well researched without established prevailing theory. Thus, the ability to triangulate was severely limited (McGrath, 1982). However, the above literature review that calls for the amalgamation of ICT and tourism does emphasize the need found within this study. The methodology chosen, a field study collecting secondary data, reduces the precision of the measurement and the generalizability to the target population but maximizes

the degree of realism of the context (Jourdan, Rainer, and Marshall, 2008). To overcome the low ranking of this methodology for the precision of the measurement, we examined the websites of every university and grande école in Canada and France to determine the course offerings and the linkages between ICT and tourism. Thus, the sample is 100 percent of the population that posts information on the web. When examining the generalizability (external validity) of the data collected, we recognize the limitation of this method as applicable only within the institutions examined in France and Canada during the 2008-2009 academic year (Cooke and Campbell, 1979; Sackett and Larson, 1990). Because this research reports the published courses across Canada and France, the reliability of the findings depends upon the published information on the websites at the time of data collection. It is assured, however, that the web pages examined were linked directly to the website of the educational institution.

We surveyed the websites of every governmentally licensed and accepted University and grande école in Canada and France to determine their offerings. The web pages were examined in July and August, 2008, reflecting the offerings of the 2008/2009 academic year. We chose to examine only those institutions that were able to grant degrees, not two-year diploma colleges. The Canadian universities were selected from the Association of Universities and Colleges of Canada website. All have standing with this national body. These universities are selected from the ten provinces and two territories of Canada and have over 1,000 students. This resulted in 73 universities and colleges but only 63 with faculties of business or commerce, 34 of which offered Masters level programs in addition to undergrad. The French institutions of higher education were selected from 77 universities and 33 grande écoles; 110 having faculties of business or commerce. The majority of French institutions offer both undergrad and graduate programs. In all institutions, we searched to determine if tourism was offered either as a specialized degree, a specialization within a degree, and whether tourism offerings were mandatory or optional courses. We also searched to determine if the school had an information technology department and what information technology courses were offered in the program that offered tourism. This was important because the knowledge required for e-tourism is a combination of a minimum of two faculties, business and computer science or information technology. If e-tourism courses were offered, we noted the course

content. This information was recorded and analysed to reveal the following results.

Results

Surprisingly there are no mandatory courses in e-tourism in any Canadian university. Having regard to the fact that Canada is a bilingual country of English and French and currently the language of the Internet is English, the lack of e-tourism courses is surprising, especially in relation to the number of e-tourism courses in France, given France's slow adoption of the Internet.

French institutions offer a slightly different style of education. Many grande écoles are specialized in a particular discipline, such as business/commerce or engineering. Thus, although the universities are multidisciplinary, the grande écoles often do not have faculties outside their specialty. There are 63 Universities that have both commerce and ICT faculties and 59 Universities have a specialized ICT course specifically for business. Only 26 of these have tourism courses, with only four of these having specialized mandatory courses in e-tourism. In grande écoles only four have both ICT and commerce faculties, but all 35 have specialized ICT courses. Of the grande écoles, 21 have a specialization in tourism, with only three having specialized mandatory courses in e-tourism.

The following table summarizes the overall information concerning the institutions.

Table 1: here

Many of the mandatory ICT courses offered in both countries' tourism programs are styled as an introduction to computers, technology, and software programs that are used and useful business operations, but there are few other consistencies. The response of higher education to the evolution of ICT as a major component within this industry in both countries, while better in France than Canada, is lacking in its practical aspects. This includes a lack of courses in webpage design, programming, data collection, and the ability to adequately access recommender systems (Gretzel and Fesenmaier, 2006). This is not new. Cho, Schmelzer, and McMahon (2002) questioned whether educators were adequately preparing students for the unstable and complex future. This is discussed further in the following section.

In the findings of this study, tourism education is different between these two countries. One of the differences in educational content is the different geographical areas. Tourism in Canada tends to look more toward the open and wilderness areas in Canada whereas in France tourism centres more on the historic sites as well as organized sports and leisure. Both countries have some assistance from national organizations, but France has access to the SMART-UP program that facilitates training and education for SMEs in tourism.

In reviewing the tourism literature, Morgan (2004) found courses were grouped around the generalized themes of the meaning of tourism, the significance and impact of tourism, the structure and dimensions of the tourism market, marketing, planning and development, and tourism policy. Deviations from this are rare (Morrison and O'Mahony, 2003). This review reveals an absence in ICT training or emphasis. This missing component of this education endorses the lack of ICT in the SMEs that comprise the bulk of employers within the tourism industry. Students and ultimately the tourism industry are limited without the training and education provided by institutions of higher education.

Discussion

The use of ICT in the industry promotes its use in tourism education. The first call for the inclusion of ICT in tourism education appeared in the academic press as early as 1995 with a recommendation for the inclusion of skill development in microcomputer literacy (Koh, 1995). In reviewing all of the secondary data, both literature and website information, it appears that much of the research and literature on the e-environment and tourism focuses on online booking and reservation systems (Buhalis, 1998, Evans and Peacock, 1999) or a system through which emails can be forwarded for advertising (Buhalis, 2003). This failure to explore beyond easily observable areas indicates the field is immature and poorly developed. The literature rarely provides innovative or cutting edge information on technology such as dynamic packaging that configures and assembles packaged travel products according to individual requests and accessing online communities that would contribute to the visibility and profitability of tourism operators. The limitations of the literature

include lack of research into networking, collaboration, information seeking, and other opportunities through which the sector of tourism could benefit. These limitations mean opportunities are lost in many of the current tourism education programs. Without adequate training, entrants into the tourism industry do not introduce new forms of technology and are not prepared to begin to work in the existing and emerging electronic aspects of the tourism industry. As one of the two aforementioned goals of higher education, it is disconcerting to see this lack.

The literature often cites the content of courses as catering to vocational and managerial objectives (Cooper and Westlake, 1998; Evans, 2001; Gee, 1999; Tribe, 1997) that must be tailored to fit the environment. It is recognized that there is a difference in use of ICT among different countries as exemplified in the research of Agourram and Ingham (2007). Their research reveals that the high scores in power distance and high uncertainty avoidance in France and the low scores on those two aspects in Canada are also extended throughout ICT usage. This means the user independence from ICT professionals, the power over the system, the perceptions of use of ICT, and the impact on individual skills and knowledge, and the impact on the user as a person are very different between France and Canada (Agourran and Ingham, 2007). It is incumbent upon the academics to prepare the tourism graduate for the increasingly global environment of tourism, recognizing and preparing the student to deal with this difference as expressed in the ICT technology.

Another difference between the countries' tourism and e-tourism education lies in the internationalization of the students in part due to the Bologna Process (Werner, 2008). France is a member of the EU, which allows students unfettered access to educational programs across all member countries. Further, partially because of geographic proximity, many students from other non-European countries go the Europe for their post-secondary education. In the 2006/2007 academic year, Africa, primarily North and Sub-Saharan Africa, sent the largest number of students to France (47.6 percent) with Europe the second largest (25.3 percent) (Etudiants étrangers en France, 2007). The number of foreign students in France has increased by 77 percent in relation to the 1998 figures (Etudiants étrangers en France, 2007).

This may be reflective of the fact the year 1998 was the year the government in France implemented policies that would enhance the attractiveness of the country to foreign visitors. Canadian institutions must comply with governmental mandates regarding immigration, decreasing the number of potential foreign students. However, both countries have international students who enhance international education classes, which, together with the globalizing reach of the Internet, facilitate the development of innovative curriculums. The existence of international students and the Internet enhances the inclusive education of students in facilitating the diversity of programs and the diversity of the nation in which they are studying. Unfortunately, exchange and foreign students occasionally neglect the broadening of their education by not participating in some courses, potentially creating lapses in their education. This is indicated in this study, whereby if a French student were to study for a year in Canada, they would not be obliged to participate in mandatory e-tourism courses.

This would limit the French student who returns to France where others in tourism are more likely to have been required to pass an e-tourism course. The desire of employers to have graduates who have the knowledge necessary to begin work is as well known as the desire of students to get good marks and a good job. Without the requisite knowledge of how to operate in the e-environment, graduates are not ready. This is not unique to Canada and France. Teixeira and Baum (2001) found an excess of graduates of generic undergraduate tourism courses in the UK, which has resulted in themed routes where students were able to specialize. Unfortunately, this specialization may result in students who have an unnecessarily narrow education, especially at the undergraduate level (Morgan, 2004). Further, it may result in a paucity of knowledge for students who avoid some of these courses, such as e-tourism.

To counter the failure of tourism programs to offer e-tourism courses, some research defends the failure to grasp opportunities by finding that small and medium businesses (SMEs) are more vulnerable within the e-environment due to problems with authentication, certification, data security, confidentiality, and legal disputes (Buhalis and Schertler, 1999, OECD, 1999). However, SMEs are global players in the B2B arena of e-commerce (Asia-Pacific Economic Cooperation (APEC) (1999), indicating the difficulty may be located in specific industries. With the increasing potential of e-commerce, solutions must be

found to enable tourism to continue to grow.

In an attempt to counter the potential negatives for SMEs within the European tourism industry, the European Commission designed SMART-UP to assist small tourism and hospitality firms specifically in the ICT environment. SMART-UP also allows for e-learning (Colins, Buhalis, and Peters, 2003) as well as upgrading and maintaining standards, thus providing opportunities for small business to remain current with ICT without the expense of traditional education. Thus, the tools and training are readily available for European firms, partially through SMART-UP, facilitating learning regions to form and competitive advantage to thus arise (Florida, 2002). The application of online and computer assisted instruction also facilitates the educational base needed within this industry (Zakrzewski, Sammons, Feinstein, 2005) and the population's ready acceptance (Mills and Douglas, 2004). Given the lack of educational opportunities, this may be a template for the Canadian tourism industry.

As the future continues to evolve, the requirements of education must similarly change. To facilitate the incorporation of this process in education, "out of the box" academics and industry practitioners must collaborate on curriculum. Peter Drucker (n.d.) recognized the need for preparing students to enter an evolving world by noting the sole objective of education is to produce a knowledge worker who "needs only one thing only: to learn how to learn."

Conclusion

What is taught in the classroom should be reflective of what is happening in practice. Academics should encouraging the questions, thoughts, and ponderings that will take the industry in new and exciting directions. With the growth of the Internet and the dependence of business on ICT, education today must include courses beyond the core skills, literacy, and numeracy (Lashley and Rowson, 2005). The growth of tourism means graduates must be able successfully operate in the e-environment using ICT.

Although curriculum varies across borders and regions, the importance of training in ICT remains indisputable. This need was identified almost 15 years ago but from the results of this study, the call has not been widely accepted. This may be the result of many factors including the non-use of ICT by many of tourism's SMEs. But regardless of the reasons, ICT is used as a tool in the tourism business environment.

The need for ICT proficiency in tourism education goes beyond email communications and distance education. Users access the Internet daily for tourism purposes with sites such as Expedia and Travel Cuts, blogs, and destination websites. Because tourism is so broad, these sites facilitate and compete with tourism agencies. But the Internet and ICT provide many more opportunities that need exploration. ICT facilitates new concepts that are innovative and creative, potentially moving the industry in new directions with new tools.

A study of Internet usage by American Visitors' Bureaus identifies the managers' education as a crucial differentiator in the adoption of ICT (Yuan, Gretzel, and Fessenmaier, 2003), emphasizing the importance of the post-secondary education curriculum. Will our esteemed institutions fulfil the needs of the tourism industry and teach the students to look beyond what exists? Even if the industry does not recognize or accept these needs is it not education's function to prepare students and thus potentially encouraging change in the industry?

References

Agourram, H. and Ingham, J. (2007). The impact of national culture on the meaning of information system success at the user level. *Journal of Enterprise Information Management,* 20(6), 641-656.

Airey, D. (2001). Journal of teaching in travel and tourism. *Tourism and Hospitality Research*, 3(2), 185-186.

Airey, D. and Tribe, J. (2000). Education for hospitality. In C. Lashley and A. Morrison (Eds.*) In Search of Hospitality: Theoretical Perspectives and Debates* (pp. 272-292). Oxford, UK: Butterworth-Heinemann.

Allan, B. (2007). Time to learn? E-Learners' experiences of time in virtual learning communities. *Management Learning*, 38(5), 557-572.

Bakos Y, J. (1997). Reducing buyer search costs: Implications for electronic marketplaces. *Management Science*, 43(12), 1676-1692.

Beardsworth, A. and Keil, T. (1997). *Sociology on the Menu*. London, UK: Routledge.

Bloch, M. & Segev, A. (1996). The impact of electronic commerce on the travel industry. http://citm.haas.berkeley.edu/publications/papers/wp-1017.html. [Accessed 20 August 2008].

Braun, P. (2002). Networking tourism SME's: E-commerce and e-marketing issues in regional Australia. *Journal of Information Technology and Tourism*, 5(1), 35-47.

Braun, P. (2004)? Regional innovation and tourism networks: The nexus between ICT diffusion and change in Australia. *Journal of Information Technology and Tourism*, 6(4), 35-47.

Buhalis, D. (1998). Strategic use of information technologies in the tourism industry. *Tourism Management,* 19(5), 409-41.

Buhalis, D. (2003). *E-Tourism: information technology for strategic tourism management*. Englewood Cliffs, NJ: Prentice Hal.

Buhalis, D. & Schertler, W. (1999). *Information Communication Technologies in Tourism*. New York, NY: SpringerWien.

Cho, W., Schmelzer, C.D., & McMahon, P.S. (2000). Preparing hospitality managers for the 21st century: The merging of just-in-time education, critical thinking, and collaborative learning. *Journal of Hospitality & Tourism Research*, 26(1), 24-37.

Colins, C, Buhalis, D., & Peters, M. (2003). Enhancing SMTEs' business performance through the Internet and e-learning platforms. *Education + Training*, 45(8/9), 483-495.

Cooke, T.D. and Campbell, D.T. (1979). *Quasi-experimental design: Design and analysis issues for field settings.* Skokie, IL: Rand McNally.

Cooper, C. & Westlake, J. (1998). Stakeholders and tourism education. Industry and Higher Education, 12(2), 93-100.

Coopey, J. (2003). Sustainable development and environmental management : The performance of UK business schools. *Management Learning*, 34(1), 5-26.

Cunliffe, A.L. (2008). Orientations to social constructionism: Relationally responsive social constructionism and its implications for knowledge and learning. Management *Learning*, 39(2), 123-139.

Desmet, P. (2000). Politique de prix sur Internet. *Revue Francaise du Marketing*, 177-178(2-3), 49-68.

Drucker, P. (n.d.). *Dictionary/Quotations/Peter F. Drucker*. Available: http://www.special-dictionary.com/quotes/authors/p/peter f. _drucker./187351.htm. [Accessed 26 August 2008].

Etudiants étrangers en France: Une analyse, (2007). http://www.diplomatie.gouv.fr/fr/actions-france 830/education-universite-formation 1043/etudier-france-bourses 4933/etudiants-etrangers-france-une-analyse 4934/index.html. [Accessed 27 August 2008].

Evans, N. (2001). The development and positioning of business related university tourism education: A UK perspective. *Journal of Teaching in Travel and Tourism*, 1(1), 17-36.

Evans, G., Bohrer, J., and Richards, G. (2001). Small is beautiful: ICT and tourism SME's - a comparative European study. *Information Technology and Tourism*, 3(3/4), 139-153.

Evans, G. & Peacock, M. (1999). A comparative study of ICT, tourism and hospitality SME's in Europe. In D. Buhalis, D. and W. Schertler (Eds.) *International Conference on Information and Communication Technologies in Tourism,* 376-387. Innsbruck, Austria: Springer-Verlag.

Fang, CL. & Lie, T. (2006). Assessment of Internet marketing and competitive strategies for leisure farming industry in Taiwan. *Journal of American Academy of Business, Cambridge*, 8(2), 296-300.

Florida, R. (2002). The learning region. In M.S. Gerber and D.A. Wolfe (Eds.) *Innovation and Social Learning. Institutional Adaptation in an Era of Technological Change*, pp. 159-181. Basingstoke, UK: Palgrave MacMilan.

France in Canada (2009). Home page. Available: http://www.ambafranceca.org/spip.php?rubrique743. [Accessed 26 December 2008]

French-Property.com (2008). *French tourism is booming - France remains a tourism top spot*. Available: [http://www.french-property.com/newsletter/2007/4/2/tourism. [Accessed 29 August 2008].

Gamble, P.R. (1990). Building a yield management system - the flip side. *Hospitality Research Journal,* 14(2), 11-21.

Gee, C.Y. (1999). An outlook on the past, present and future of travel education. *Journal of Hospitality and Tourism Education,* 11 (4). 5-9.

Geyskens. I., Gielens. K., & Dekimpe. M.G. (2003). Comment le marché évalue-t-il l'ajout d'un canal de

distribution sur Internet? *Recherche et Applications en Marketing*, 18(2), 101-128.

Gherardi, S. (2009). Introduction: The critical power of the 'Practice Lens'. *Management Learning*, 40(2), 115-128.

Gold, J., Thorpe, R., Woodall, J., and Sadler-Smith, E. (2007). Continuing professional development in the legal profession: A practice-based learning perspective. *Management Learning*, 38(2), 235-250.

Gretzel, U. and Fesenmaier, D.R. (2006). Persuasion in recommender systems. *International Journal of Electronic Commerce,* 11(2), 81-100.

Gunn, C.A. (1991). The need for multidisciplinary tourism education. In R.D. Bratton, F. Go, and J.R.B. Ritchie (Eds.) *New Horizons in tourism and Hospitality education, Training, and Research*, 27-33. World Tourism Education and Research Center, University of Calgary, Calgary, Alberta.

Hernandez, V. (2008). Fewer Americans visit Canada, tourism revenues show sharp decline. Available: http://www.alheadlinenews.com/articles/7011750906. [Accessed 26 August 2008].

Holden, A. and Wickens, E. (2007). 'Citizens of the world' or 'Management Puppet'? *Tourism Recreation Research,* 32(2), 41-47.

Holick, M. (2003). No barriers to failure: Rethinking tourism business entry. Paper presented at the *Council for Australian University Tourism and Hospitality Education* (CAUTHE) Conference, Coffs Harbour, February 5-8

Hsu, C. (Ed.) (2006). *Global Tourism Higher Education Past, Present and Future*. New York, NY: Haworth Hospitality Press.

Hyland, T. (2001). Vocationalism, work, and the future of higher education. *Journal of Vocational Education and Training,* 53(4), 677-684.

ITIM International (2009). Geert Hofstede Cultural Differences. Available: http://www.geert-hofstede.com/hofstede_france.shtml and http://www.geert-hofstede.com/hofstede_canada.shtml. [Accessed 26 December 2008].

Jourdan, W. Rainer, R.K., and Marshall, T.E. (2008). Business intelligence: An analysis of the Literature. *Information Systems Management,* 25, 121-131.

Keler, P. (2005). *Global tourism growth: A challenge for SME's. A few thoughts by way of an introduction.* Gwangji, Korea: Organization for Economic Cooperation and Development.

Kim, C. (2004). E-Tourism: An innovative approach for the smal and medium sized tourism enterprises (smites) in Korea. *Travel Research*, 34(summer), 68-72.

Koh, K. (1995). Designing the four-year tourism management curriculum: A marketing approach. *Journal of Travel Research,* 34(Summer), 68-72.

Kuom, M. and Oertel, B. (1999). Virtual travel agencies. *Netnomics: Economic Research and Electronic Networking,* 1(2), 225-235.

Lashley, C. (2004). Escaping the Tyranny of Relevance: Some Reflections on Hospitality Management Education. Paper presented at *CAUTHE 2004*, Alice Springs, USA.

Lashley, C. and Rowson, B. (2005). Getting IT right: Exploring information technology in the hospitality curriculum. *International Journal of Contemporary Hospitality Management*, 17(1), 94-105.

Lee, SC., Barker, S., and Kandampuly, J. (2003). Technology, service quality, and customer loyalty in hotels: Australian managerial perspectives. *Managing Service Quality*, 13(5), 423-432.

Lehu J-M. (2000). Internet comme outil de yield management dans le tourisme. *Décisions Marketing*, 19, 7-19.

Louvieris, P. and Lockwood, A. (2002). IT induced business transformation in higher education: An analysis of the UniCafe experience and its implications. *Computers and Education*, 38(1 -3), 103-115.

MacVicar, A. and Rodger, J. (1996). Computerized yield management system: A comparative analysis of the human resources management implications. *International Journal of Hospitality Management,* 15(4), 325-332

Main, H.C. (2002). The expansion of technology in smal and medium hospitality enterprises with a focus on new technology. *Information Technology and Tourism*, 4(3/4), 167-174.

McGrath, J. (1982). Dilemmatics: The study of research choices and dilemmas. In J.E. McGrath, J. Martin, and R.A ; Kulka (Eds.) *Judgment calls in research*, 69-102, Newbury Park, CA: Sage.

Mills, J.E. and Douglas, A. (2004). Ten information technology trends driving the course of hospitality

and tourism higher education. *Journal of Hospitality & Tourism Education*, 16(4), 21-33.

Ministere de L'Economie des Finances et de L'Emploi (2008). Chiffres clés du tourisme. Available: http://www.tourisme.gouv.fr/fr/z2/stat/chiffres/att00009212/cclesfr.pdf). [Accessed 28 August 2008].

Mitchel, J. (2003). *E-business and Online Learning: Connections and Opportunities for Vocational Education and Training*. Leabrook, SA: NCVER.

Morgan, M. (2004). From production line to drama school: Higher education for the future of tourism. *International Journal of Contemporary Hospitality Management*, 16(2), 91-99.

Morrison, A. and O'Gorman, K. (2008). Hospitality studies and hospitality management: A symbiotic relationship. *International Journal of Hospitality Management*, 27(2), 214-221.

Morrison, A. & O'Mahoney, G.B. (2003). The liberation of hospitality management education. *International Journal of Contemporary Hospitality Management*, 15(1), 38-44.

Müller-Lankenau, C., Wehmeyer, K., and Klein, S. (2006), Multi-channel strategies: Capturing and exploring diversity in the European retail grocery industry. *International Journal of Electronic Commerce*, 10(2), 85-112.

Organization for Economic Cooperation and Development (OECD) (2000). Realizing the potential of electronic commerce for SMEs in the global economy. *Conference for Ministers responsible for SMEs and Industry Ministers*, Bologna, Italy.

Palmer, A. & McCole, P. (2000). The role of electronic commerce in creating virtual tourism destination marketing organizations. *International Journal of Contemporary Hospitality Management,* 12(3), 198.

Quelch, J.A. & Klein, L.R. (1996). The Internet and international marketing. *Sloan Management Review*, 37(3), 60-75.

Raffour, G. (2002). L'impact des nouvelles technologies de l'information et de la communication dans le secteur du tourisme. http://www.tourisme.gouv.fr/fr/navd/mediatheque/publication/ntic/att00006268/impact   ntic.pdf. [Accessed 26 August 2008].

Sackett, P.R. and Larson, J.R. Jr. (1990). Research strategies and tactics in industrial and organizational psychology. In M.D. Dunnette and L.M. Hough (Eds.) *Handbook of industrial and organizational psychology,* 419-489. Palo Alta, CA: Consulting Psychologists Press.

Scott, N.M., Puleo, V.A., and Crotts, J.C. (2007). An analysis of curriculum requirements among hospitality and tourism management programs in AACSB colleges of business in the United States. *Journal of Teaching in Travel & Tourism*, 7(4), 71-83.

Stergiou, D., Airey, D., and Riley, M. (2002). The development of constructs for the evaluation of academics teaching tourism: An exploratory study using Q-methodology. In B. Vukonic and N. Cavlek (Eds.) *Rethinking of Education and Training for Tourism*, 149-166. University of Zagreb and Mikrorad: Zagreb.

Teixeira, R.M. & Baum, T. (2001). Tourism education in the UK: Lesson drawing in educational policy. *Anatolia*, 12(2). 85-109.

Todd, G. (2008). *Tourism in OECD countries 2008: Trends and policies*. Penbroke, MA: OECD Publishing.

Tourism 2020 Vision, (n.d.) East Asia & Pacific, Vol. 3. Madrid, Spain: World Tourism Organization.

Tourisme Infos Stat (2008) http://tourisme.gouv.fr TIS_EVE2007_2008-5.pdf. [Accessed 29 August 2008].

Tourism Satelite Account: Human resource model, (2008) http://www.statcan.ca/Daily/English/080421/d080421c.htm. [Accessed: 29 August 2008].

Tribe. J. (2003). Demand for higher education for the supply of graduates. *European Educational Research Journal,* 2(3), 463-471.

Tribe, J. (1997). The indiscipline of tourism. *Annals of Tourism Research*, 29(2), 338-357.

Turban, A., Lee. J., King, D., and Chung, H.M. (2006). *Electronic commerce: A managerial perspective* (4th Edition). London, UK: Prentice Hall.

UNWTO, (n.d.) *About us*. http://www.unwto.org/aboutwto/index.php. [Accessed 29 August 2008].

UNWTO, (2008). *World Tourism Barometer*. Available:

http://unwto.org/facts/eng/pdf/barometer/UNWTO Barom08 1 excerpt en.pdf. [Accessed: Accessed April 8, 2008].

United Nations Conference on Trade and Development (UNCTAD) (2001). *E-commerce and Development Report, 2001*. Available: http://r0.unctad.org/ecommerce/docs/edr01_en.htm. [Accessed: 6 August 2008].

Werner, E. (2008). The Bologna Process: Building bridges for education internationalization and the Bologna Process: What does it mean for European higher education institutions? *Journal of Hospitality & Tourism Education*, 20(1), 13-19.

World Economic Forum (2009). Travel *& Tourism Competitiveness Report 2009*. Available: http://www.weforum.org/en/initiatives/gcp/TravelandTourismReport/index.htm. [Accessed: Accessed 15 January 2008].

World Tourism Organization (WTO) (2001). *E-business for tourism. Practical Guideline for Tourism Destination and Business.* Madrid, Spain: World Tourism Organization.

World Tourism Organization (2005). *Tourism 2020 vision.* Available: http://unwto.org/facts/eng/vision.htm [Accessed 10 April 2008].

World Tourism rankings (2008). *Top international tourism destinations 2007*. Available: http://en.wikipedia.org/wiki/World_Tourism_Rankings. [Accessed 20 December 2008].

Yeoman, I. (2008). *Tomorrow's tourist: Scenarios &trends*. Elsevier: Great Britain.

Yilmax, Y. & Bititci, U. (2006). Performance measurement in the value chain: Manufacturing v. tourism. *International Journal of Productivity and Performance Management*, 55(5), 371-389.

Yuan, YL., Gretzel, U., & Fessenmaier, D.R. (2003). Internet technology use by American convention and visitors bureaus. *Journal of Travel Research*, 41(3), 240-255.

Zakrzewski, C., Sammons, G., and Feinstein, H. (2005). A new approach to CAI: Online applications for procedural based activities. *Journal of Hospitality & Tourism Education*, 17(1), 47-54.

Table 1: Specifics of the Population

	Departments of Commerce	Departments of ICT	Tourism Specialization	Tourism Courses
Canadian Undergrad Institutions (Total 73)	63 (86.3%)	52 (71.2%)	11 (15%)	13 (17.8%)
Canadian Graduate Institutions (Total 34)	34	26 (76.5%)	2 (5.9%)	2 (5.9%)
French Institutions (Total 110)	110	65 (59.1%)	45 (40.0%)	45 (40.9%)