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*World Tourism Organization, Publications Section, Capitan Haya 42, 28020 Madrid, Spain.
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REFERENCES

- Fayos-Soal, E., A. Marin, and C. Meffert
1994 The Strategic Role of Tourism Trade Fairs in the New Age of Tourism.
Tourism Management 15:9–16.
- Jafari, J., and E. Fayos-Sola
1996 Human Resources Development and Quality Tourism: A Multi-Conference Report. *Annals of Tourism Research* 23:228–231.
- Lohmann, M., and J. Jafari
1996 Tourism Labor Market. *Annals of Tourism Research* 23:490–492.

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Information Technology and the Reengineering of Tourism

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ENTER 96—the *International Conference on Information and Telecommunication Technologies in the Field of Tourism*—was dedicated to reengineering in the tourism industry in light of the revolutionary capabilities emerging through information and communications technologies. ENTER (named after the computer keyboard's "Enter" return key), now in its third year, has established itself as an annual forum where technology experts interact with tourism academics and professionals interested in how the new information technologies can be utilized to enhance the operation of tourism, leading to both increased productivity and to tourist satisfaction. The 1996 conference (January 17–19), similar to its predecessors, took place in Innsbruck, Austria.

When some years back the ENTER group took the initiative to organize a conference on tourism information technology (IT), this was perhaps a bold step to be taken at the time. But now, a few years later, the theme is a very popular one across the field. Several such conferences or sessions have since followed, capturing the attention and imagination of tourism researchers and operators alike. These include conferences devoted exclusively to the theme of tourism IT, such as the one held in 1995 in the United States, or special sessions and seminars held since by such organization as the Pacific

Asia Tourism Association (PATA), World Tourism Organization (WTO), and even ITB Berlin. Recognizing the importance of the theme, this research thrust and industry focus promises greater prospects at local, national, and international levels.

The 1996 ENTER program, developed on the bases of its past two conferences held in 1994 and 1995, featured three tracks—one application-oriented, one scientific, and an exhibition—attracting over 400 participants from 21 countries to its conference sessions and over 500 as visitors to its exhibition booths. The first track featured 15 presentations, eight workshops, and two panels. The second track offered 31 paper presentations covering a large range of topics. This year's program, even more than its predecessors, made it quite apparent that IT has led to a paradigm shift in the tourism industry. A variety of trends, such as individualization of tourism experience, the development of remote destinations, globalization and worldwide competition, and difficulties experienced through the concentration of power in fewer integrated tourism operators, suggest that IT can be utilized to reengineer the processes in order to ensure a fair allocation of the profit margins generated among tourism sectors. Moreover, it is evident that this revolution has fostered the development of a culture of constant innovation and improvement by disseminating information and providing paradigms from enterprises and destinations around the world. Apart from facilitating the operation of individual tourism enterprises, IT has revolutionized the interactive transparency of partnership in place of competition. This innovation became more agreeable with presentations on a wide range of protocols, applications, and pilot projects. This inevitably led to discussions on the Internet and World Wide Web and their present and near-future applications in product design, development, promotion, and delivery.

As IT continues to change and leave its mark on tourism, the concept of reengineering tourism structure and function *a fortiori* comes to the foreground. Paper presentations considered business process reengineering (BPR) as a means of adapting a company to face new socioeconomic challenges, by amending its strategic direction in order to effectively respond to business opportunities and, at the same time, to avoid threats emerging through the IT revolution. Reengineering requires strategic commitment by corporate management while it needs to be pervasive by covering the entire range of activities in the organization and industry. In turn, strategies need to be adjusted to the information era and businesses. Reengineering requires vision which gives perspective and empowers organizations to overcome long-term threats, while demolishing the resistance to change. This all brought focused attention to various tourism sectors and led to discussion on the applications and impacts of IT on, for example, travel agency/tour operation businesses. For instance, while a few argued that travel agencies will never be eliminated from the distribution chain, several warned that unless this sector enhances its service to travel counselors, their business will be severely threatened.

Back to tourism as a whole, one of the keynote speakers introduced the concept of BPR and demonstrated its potential to increase both effectiveness and efficiency. As noted, BPR affects processes both inside one company its links with other enterprises, resulting in a faster and direct link to the final consumer. Other presentations, in this and other respects, advocated the need for closer cooperation across the industry. Industry-wide cooperation, it was reasoned, would improve services and provide a seamless tourism experience. Although cooperation can ensure that commitments are made to a long-term infrastructure development of a sector or tourism as whole, competition alone suggests that business enterprises remain innovative and responsive to new challenges and opportunities. Both tourism and IT net-

works need to be facilitated to improve the coordination and efficiency of the industry. This implies that business networks need to formulate both horizontal and vertical linkages, where synergy will provide opportunities for mutual benefits and enhances the service provided to customers. But, as participants were reminded, this requires a certain degree of standardization to enable compatibility and interactions among technologies, partners, and users. Therefore, the need to develop interfaces and common platforms was emphasized. Furthermore, several other areas of standardization were examined in product design, presentation and delivery, payment systems, telecommunication infrastructures, and intermediation processes.

In sum, the conference recognized that the acceptance and understanding of technology by decisionmakers is pivotal to their ability to take full advantage of the IT revolutionary developments in progress. The tourism community was constantly reminded that the BPR of its industry must be driven by marketing principles, as satisfying the final consumer by providing the right products, at the right time and price, following appropriate methods is instrumental in the success of any tourism business or destination as a whole. Significantly, motivation and education/training of tourism human resources towards understanding and utilizing the merging technologies will determine the adaptation pace and the degree of advantage an organization can take. Therefore, tourism education was left with the challenge to incorporate IT into its curricula in order to best prepare tomorrow's laborforce in tourism.

The ENTER 96 program illustrated that information technologies both enable and drive business processes and companies. It effectively uncovered an important feature of the present time: the steadily increasing speed of change and the constancy of change itself. But many other issues remain less than clear—the psychological, social, and cultural impacts as IT continues to threaten constants or norms, whether in everyday life or in business operations (an issue which is not unique to tourism). To advance efforts in many fronts, ENTER's thrust each time takes new dimensions. For example, its 1996 conference gave an award for the best Web page in the field of tourism. To assure continuous and concerted IT efforts in tourism, the ENTER program committee also decided to form an international association in this new field of investigation and operation and thus to help the formation of a body of knowledge in this area. Furthermore, talks are in progress to publish a research-oriented journal which takes tourism and IT as its focus. ENTER has already succeeded in meeting its past programmatic goals, with the formation of the association and the fostering of the journal taking ENTER beyond the typical self-contained and self-serving achievements inherent to many conferences worldwide.

Individuals interested in obtaining information about ENTER 1996, copies of past conference proceedings, or information about ongoing efforts may contact TIS, Maria Theresienstrasse 55, 6010 Innsbruck, Austria. Email spechtenhauser@tis.co.at; <http://www.tis.co.at/enter/enter96.htm>. □ □

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