Tourism informatics has come a long way since the development of computerised airlines booking systems in the 1960s. Information and communication technology (ICT) systems have penetrated almost all aspects of modern tourism. The focus of this book is on two important aspects, namely: travel recommender systems (TRS) and social communities. A third aspect, user interface design, is important for all ICT systems. The aim of this book is to cover these three important aspects in one volume, and bring out the latest research being conducted in these three areas, as well as their interrelationship.

The first chapter presents an overview of the three main topics covered in this book: visual travel recommender systems (VTRS), social communities and user interface design. The author shows how visual travel recommender systems and tourism communities can be advanced along with user experience.

The remaining four chapters in section 1 focus on the latest research on travel recommender systems (TRS). The second chapter presents a semantic user model for advancing travel recommender systems (TRS). This model uses description logic to represent user’s knowledge and information, in conjunction with domain-dependent rules to derive user interests. This model is then connected to a Web application scenario for providing personalized information to assist a traveller in an urban space. The third chapter covers a recommender system called “Vibe virtual spa advisor”. This system is based on an off-the-shelf knowledge-based and domain-independent framework called Advisor Suite. This suite allows rapid development of advisory applications and therefore reduces development costs. This chapter also reports the authors’ practical experiences, and opportunities for future research in the domain. Chapter four presents a multiagent recommender system developed to deal with distributed expert knowledge. In this system agents work as cooperating experts that exchange information to generate the best possible recommendations. To validate the system, the author carried out simulations in which agents collaborate to recommend travel packages, enhancing the efficacy of the system. In the fifth chapter, the authors present a recommendation methodology that uses a conversational approach for preference acquisition, in conjunction with map visualization for mobile travellers. Their usability study demonstrates that integrating map-based visualization and critiquing-based interaction improves the system’s recommendation effectiveness, thereby enhancing user satisfaction.

The four chapters in section 2 look at social communities for e-tourism, and present research into their usability as well as their effectiveness in bridging the tyranny of distance. The emergence of Web 2.0 has dramatically changed the look and feel of websites and applications available on these. Chapter six investigates Web 2.0 tourism sites vis-à-vis their usability and the novel types of content available on these. It explores how embedding an application within a website influences design complexity and modifies the user experience. The seventh chapter explores social aspects of tourism informatics by using travel photographs posted on Facebook. It examines the semiotics of visual images and written messages based on tourism experience of ten individuals. The author explores how photographs reinforce the travel experience of those who took these photos, and how it can influence the travel decisions of those
who view them. Chapter eight examines the state of virtual travel community (VTC) research from a new perspective. Current VTC research has focused mainly on consumer behavior from the travellers’ viewpoint. This research examines how the VTCs can be used for connecting travellers to the locals at the destination. The authors present empirical evidence from a substantial virtual community, namely: CouchSurfing.com. Their research demonstrates that there is ample opportunity to build relationships between potential travellers and locals by using VTCs. In chapter nine the authors examine tourism behavior using Internet-based websites that provide free lodging with local residents. This research investigates factors that influence the development of a general model describing traveler behavior within a cost-free lodging network. The authors present an information representation and visualization methodology that is based on time-geographic dimensions.

The five chapters in section 3 focus on user interface aspects of e-tourism systems. The first chapter in this section, chapter ten, presents a model-based approach for automatic generation of user-centric interfaces for mobile tourists leading to efficient access to mobile applications and services. The authors present a polymorphic logical description (PLD) model for interface description to address the diverse needs of mobile users. A toolkit developed by the authors, based on the PLD model, and its evaluation results are also provided. Chapter eleven presents a virtual environment (VE) for redirected walking that allows users to walk through large-scale immersive virtual environments (IVEs), such as a virtual city. The authors explore two main questions: firstly, how well does redirected walking work, and secondly, the degree to which the users can be manipulated? Chapter twelve looks at online virtual reality (VR) environments in the context of the Travel in Europe (TiE) project. This project is developing tools to build enriched virtual environments where the player can explore reconstructed virtual places creating an information-rich and contextualized experience. Authors’ tests indicate that enriched 3D environments can support contextualized promotion of artifacts, products and services. In chapter thirteen the authors present an e-tourism environment that uses a community-driven approach to create a society of travelers, in which they can exchange travel experiences, recommend tourism destinations or just catch some interesting gossip. It also includes facilities for business transactions; including booking a trip or seeking assistance from a travel agent within an integrated, game-like 3D virtual world, in which each tourist is represented by as an avatar. The final chapter shows how photographs make a substantial contribution to virtual word-of-mouth exchange using Web 2.0 applications. The authors articulate the need for tools that can help in interpreting destination based photographs; and discuss a destination image analysis framework that allows a comparison of images posted by marketing bodies and consumers.

The additional section 4 includes reproductions of two chapters by the editor from a previous IGI Global book titled Information and Communication Technologies in Support of the Tourism Industry. The first reproduced chapter is titled Developing Visual Tourism Recommender Systems. This chapter expounds the original motivation for including visualization aspects in travel recommender systems, and became the motivation for producing the current book. The second reproduced chapter is titled A Framework for Ontology-Based Tourism Applications. This chapter presents a framework for developing intelligent e-tourism applications with the help of a tourism ontology.

This book will be useful for researchers and practitioners who wish to explore some innovative research being conducted into travel recommender systems, travel related on-line communities, and their user interface design. It can also be used as a reference for senior undergraduate and postgraduate studies in tourism informatics. I hope that you benefit from it, and are inspired to create more innovative solutions for e-tourism.

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