

Chapter 1

Building Visual Travel Recommender Systems and Tourism Communities for Effective User Experience

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ABSTRACT

Modern information and communication technology (ICT) systems can help us in building travel recommender systems and virtual tourism communities. Tourism ICT systems have come a long way from the early airline ticket booking systems. Travel recommender systems have emerged in recent years, facilitating the task of destination selection as well activities at the destination. A move from purely text-based recommender systems to visual recommender systems is being proposed, which can be facilitated by the use of the Web 2.0 technologies to create virtual travel communities. Delivering a good user experience is important to make these technologies widely accepted and used. This chapter presents an overview of the historical perspective of tourism ICT systems and their current state of development vis-à-vis travel recommender systems and tourism communities. User experience is an important aspect of any ICT system. How to define user experience and measure it through usability testing is also presented.

INTRODUCTION

Tourism related applications are some of the oldest and the most prolific users of information and communication technology (ICT). Various terms such as eTourism, Tourism Informatics, and Tourism ICT are used to describe such systems, and we use these terms interchangeably in this chapter. The goal of all such systems is to enhance the tourism

experience, before, during, and after the tour. This chapter presents an overview of modern eTourism systems with a focus on Travel Recommender Systems, Tourism Communities, and their relationship to user interface design.

Tourism is fundamentally a social activity. In planning a tour, people take suggestions about the destination from friends and colleagues; interact with agents to plan and book the travel itinerary and accommodation; partake in the travel and destination activities with family and friends; meet new people

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and develop friendships—at times everlasting ones; share the travel experience with many other people. All these interactions and communications lead to the creation of a myriad of travel communities. In the past, these communities were developed when face-to-face contact occurred. With the advent of the social networking systems on the Internet, such communities are proliferating in the virtual world as well.

Tourism Informatics began with the introduction of the first air ticket booking system introduced in 1950s by the American Airlines; since then the tourism domain has adopted and utilized advancements in ICT systems soon after these have been developed. Now booking tickets and hotels on the Internet is common. However, many more Internet-based facilities have become available within the eTourism gambit; all of these aim to make tour planning a more enjoyable experience.

The concept of recommender systems has been adopted widely by almost all business areas where a consumer needs to make an informed choice. Websites selling books, recommend more books based on the user's current choice and the related books chosen by previous consumers who also bought the same book. Google has built a billion dollar business in recommending advertisements based on the topic a user is searching for. Travel recommender systems apply this concept in helping travelers to choose their destination, accommodation, and activities at the destination. Tourism is a very sensual experience, involving all senses. However, most recommender systems present their recommendations as textual information, thereby underselling the destination and its sensual aspects. Visual travel recommender systems are being developed to overcome this limitation. Some of the proposed systems can capture information from a variety of websites and link these together into a continuous visualization like a video clip (Ponnada, Jakkilinki, & Sharda, 2007).

Good user interface design is of paramount importance, because an ineffective user interface

can turn a good idea into a failed product. The ICT world has realized lately that the user experience must be given as much attentions, if not more, as the technical details of any ICT system. While there are many more aspects of user experience with any ICT system, the user interface is the 'face' of the system, and this 'face' is often taken by the users as the 'soul' of the system. To ensure that the user interface is effective and easy to use, usability studies should be carried out using well established usability testing methods (Neilson, 1993).

This chapter explores the evolution of Tourism ICT systems, with a focus on travel recommender systems, virtual travel communities and their user interface design.

Chapter Aim and Objectives

The main aim of this chapter is to build a holistic view of tourism ICT systems and their role in advancing tourism communities.

Some of the specific objectives of this chapter include:

- To understand fundamentals of Tourism ICT systems
- To build a big-picture view of Travel Recommender Systems (TRS)
- To appreciate how tourism ICT systems can help in creating travel communities.
- To understand the importance of good User Interface (UI) design and techniques for enhancing user experience.

Chapter Layout

Section-1 introduced the motivations, aims and objects for this chapter. Section-2 presents history and fundamentals of tourism informatics. Section-3 presents an overview of travel recommender systems. Section-4 explores the concept of travel communities. Section-5 discusses the concept of user experience and how it may be

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