Chapter 9
Progressive Tourism:
Integrating Social, Transportation, and Data Networks

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ABSTRACT

This research examines tourism behavior using Internet-based websites that provide free lodging with local residents. Increases in computing power and accessibility have led to novel e-tourism techniques and the users of such systems utilize an amalgamation of social networks, transportation networks, and data communication networks. The chapter focuses on how the geographical spread of people in a modern, digital social network (CouchSurfing) influences the travel choices of each individual in the network. Activities performed in coordination with this type of system can vary greatly in travel mode, accessibility, mobility, and time, among other factors. This research studies factors that influence a general model describing traveler behavior using a cost-free lodging network. The authors present an information representation and visualization methodology utilizing time-geographic dimensions.

INTRODUCTION

In recent years the flourishing of technology has brought many conveniences, connections, and frustrations for people across the world. Specific to this research, the digital age provides novel ways for humans to discover geography. Means of mobility have greatly increased over the decades, and we are able to travel farther and faster than ever before; however, travel has also become less necessary in some circumstances through the integration of virtual communication and meetings. Physical presence is still required in many instances, but are we seeing an increase or decrease in time-space compression (Harvey, 1989)? Part of our interest in time-space compression is the effect that modern technology has on a human’s use of time and capabilities for travel.

Modern, internet-based social networks allow individuals to connect unlike ever before with large, geographically spread, culturally diverse, and yet, maintainable structures. While travel behavior with Information Communication Technologies (ICT),
global transportation, and social networks (Larsen, Urry, & Axhausen, 2006) are currently popular research subjects, a geographer’s perspective on the interconnectedness of these topics sheds new light as to how all of these impact spatial behavior. In addition, specific groups of people utilizing those networks need to be studied to understand how virtual data networks and contemporary social networks link with transportation and cultural exchange. This chapter aims to gain a better understanding of this challenge, and show how to conduct research in this area.

In this chapter the concept of a synergy of social, transportation, and data networks is divided into the following sub-questions:

- How does the geographical spread of people in an internet-based social network influence the travel choices of individuals in the network?
- What behavior do these travelers exhibit, when utilizing a novel amalgamation of social, transportation, and data communication networks?
- How can these network levels be visualized efficiently to be utilized as a decision support tool for travelers and cutting-edge e-tourism systems?

All of these questions require individual in-depth research programs; nevertheless, for developing a more holistic understanding of this topic, all three questions should be integrated. In order to tackle this work of geographic complexity we begin at the conceptual level that first investigates each of the critical elements individually, and then analyzes its potential contribution to the system as a whole. Next, a data model will be created to test, explain, and represent different elements of the complete information. This model will be valuable for any researcher studying single or multi-level network architectures; and, on a broader scale, any individual experiencing geography first-hand, through tourism and travel.

Traveling can be a thrilling and stimulating experience; however, it can also be costly and emotionally draining. Presence in a new environment provokes questions, and demands answers to physical and geographical issues. This research focuses on the existence of hospitality and hosting combined with travel. When visiting a new place individuals are more likely to take on distant and exotic travels if there exists a connection with a local host. This can be beneficial for both the host and the visitor, as this can lead to exchange of culture and food, leading to the development of companionship. Traveling for business as well as for leisure can fit into this category, and relate to these principles. Trips made in this fashion have been common for many years through family, friends, friends of friends, and beyond. However, expanding upon these concepts and using newly developed technological resources brings about a more recent form of travel, yet to be studied in detail.

In order to embark upon this research a sound, existing collection of diverse individuals is needed to demonstrate the power of the network amalgamation. This launches the effort to understand and characterize the unique spatio-temporal behavior of these travelers. In this research we utilize an existing online network as a case study. TheCouchSurfing (CS, http://www.couchsurfing.com) project is a free, online social network of people from all over the world, and willing to share time and their homes with travelers. Users provide each other with a space to sleep such as a couch, floor space, or an extra bedroom. Members may also offer guidance with tours or simply meet.

A key element that holds all of these people together in one system is the use of a digital social network. Each member creates a profile containing volunteered geographic information (VGI) such as their current city of residence, previous travels, and future travel plans. A profile can also contain personal descriptions, hosting capabilities, languages spoken, and photographs. This social network is increasingly important as the links...
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