

Collaborative Information Searching in Travel Context: A literature Review

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Abstract

Past research into information searching has largely focused on the information searching as a one-person activity in various travel stages (pre-trip, on trip and post-trip). Those types of research examined the activities, roles, behaviours, methods and processes an individual uses to gather information. More and more researchers have noted that information searching could be teamwork, that is, people search information collaboratively. This paper presents review and discussion of the collaborative information searching in the travel context. The collaborative concept and measurement are reviewed. Based on the existence of two dimensions of synchronous and asynchronous, previous studies are analysed to provide an in-depth understanding of collaborative information searching behaviours in travel context.

Keywords: collaborative information seeking; traveller collaborative information seeking; mobile technology.

1 Introduction

Studies of travel information seeking reveal that there are many situations that call for people who are planning to travel together or are traveling companions to work together for information seeking (Ho, Lin, & Chen, 2012; Morris & Horvitz, 2007). Those situations require a group of people work with each other to achieve a shared goal. The emergence of mobile technology represents the convergence of two key features of technology over the past two decades: portability and networking. The result of this convergence gives promises to travelers with access to services provided through the Internet anywhere, anytime, and whenever they need it. That is to say the mobile technology not only extends the reach of wired network, it also serves as an alternative information channel for travelers. These presents a whole new range of opportunities possible for travelers in changing the way certain information-related activities are conducted.

Given the prevalence of the use of mobile technology and the trend toward mobile service in travel, a review of methods and findings to traveler collaborative information seeking (TCIS) in travel is both necessary and timely. Such a review aims to provide readers with (a) overview of how TCIS is currently studies, and (b) recommendations for advancing the study of TCIS.

The current review adopts the perspective of Twidale and Nicols who considered collaborative information searching as “people or agents together achieve tasks (1996).” Thus, information seeking is viewed as a purposeful and goal-oriented activity, rather than the result of a mindless and unintended browsing. See from this

perspective, TCIS is identified as a tourism information activity, which implicitly or explicitly involves searchers interacting with others directly through vocabulary, phrases, texts or visual displays as information sources in a search task-related tourism information seeking process in an online or offline co-located/remote setting or synchronously/asynchronously (Hansen & Järvelin, 2005).

To organize the current review, collaboration may be classified as remote or co-located as well as synchronous or asynchronous (Twidale, Nichols, & Paice, 1997). A range of information searching and exchange activities have been positioned in terms of spatial and temporal dimensions. Most of the activities via editorial information sources take place in terms of co-located/synchronous interactions, whereas mobile technology enables interactions to take place not in the same space and different time (See Table 1). The use of mobile technology facilitates remote interaction, social and networking that enable travelers work jointly (Brown & Chalmers, 2003). The following sections provide a summary of the four quarters introduced in Table 1. The summary is by no means exhaustive and is intended to highlight the types of research questions being explored by scholars in each quadrant of TCIS.

Table 1. The classification of collaborative use of mobile technology in information seeking in travel context

	Synchronous	Asynchronous
Co-located	Face-to-face interactions	Unfinished and continuous tasks
Remote	Communication	Sharing and Reminiscing

2 Review and Analysis of Research

Many authors agree that the travel CIS research line emerged from the 1997's work of Brown and Metthew (2003). From this time onwards, there are hundreds of articles examined the use of mobile technology in tourism, while only twenty-three papers studied TCIS. Table 2 presents those researches by their focuses and methods employed.

Table 2. Literature Review on Collaborative Information Seeking in Travel Context

Topics Covered	Authors
a. Conceptualization and phases	Brown and Chalmers (2003), Brown, Barry, et. al. (2005), Arif, Du and Lee (2012a, 2012b).
b. Tourist collaborative information seeking process	Arif, Du and Lee (2012a, 2012b), Brown, Barry, et. al. (2005), Morris (2007, 2008), Watters, and Inkpen (2008), Rafidi (2013)
c. Research method and measurement of CIS	Morris (2008), Arif, Du and Lee (2012a, 2012b)
d. Roles of users	Imazu, Nakayama, and Joho (Imazu, Nakayama, & Joho, 2011)

e. Mobile functions in use

Prestipino (2004), Reilly Mackay, Watters, and Inkpen (2008), Rafidi (2013)

Travel information seeking (TIS) activities involve planning, decision-making, and anticipation of the trip with other people. The community (network of people) may act as a gateway to the information repository, when information seekers are not sure they have the right information themselves. This leads to collaborative TIS, although very few researchers discuss the role that collaboration plays in information-seeking activities in the tourism domain. Perhaps TCIS already exists in a certain manner during the process of information search and retrieval. In fact, tourists search for information through their family and friends, travel consultants (e.g., Snepenger & Snepenger, 1993) or travel agents (e.g., Kendall & Booms, 1989). In addition, word-of-mouth (WOM) allows customers to share information and opinions about a specific product, brand, or service (Hawkins & Roger, 2004). Seeking tourism WOMs is not only an information search strategy, but also another information channel. CTIS may implicitly be regarded as searchers seeking for tourism information using multiple information channels.

With the advances in Internet technology, WOM communication takes place from face-to-face contact to cyberspace. Electronic WOMs have been even more common on the Internet. Jeong and Jang (2011) point to the strong impact of e-WOM (including online review/recommendation) in the travel-related industries. The interpersonal influence of e-WOM has emerged as an effective marketing tool (Jeong and Jang 2012) and has driven customers to find WOM-based tourism information (Okazaki & Hirose, 2009). Social media websites play an important role in online TIS (Xiang & Gretzel, 2010). Within an online environment, people also exchange opinions and critiques regarding travel-related services in the electronic BBS (Ho et al., 2012).

Although researchers and practitioners lay emphasis on individual TIS behavior in a long run, a few researchers in the field of Information Science explore TCIS behavior by developing and designing associated systems. Prestipino (2004) proposes a community system supporting communication and collaboration in tourism, which is thread- and forum-based. In this system, a user discovers his/her information need more explicitly as follows: The community provides accurate and up-to-date information for the individual's information needs, the shared information is accessible without interfering with the community, and this forum-based information is reliable because it is reviewed by many people. Sometimes real-time interaction is necessary for dynamic TIS. However, this forum-based collaboration model does not provide such real-time interaction among tourists for situations where they need information instantly because the system takes a longer time to respond. Indeed, chat, voice or video communication for planning search strategy makes the collaboration convenient (Talja 2002). It is also expected to provide a TCIS mode on the platform of smartphones to support real-time interaction among information searchers.

In addition to internal sources and other external sources, searchers seek tourism information from other people. They may collaborate for various purposes such as gathering, verifying, updating information, as well as sharing information, knowledge and experience (2012b). The study by Arif, Du and Lee (2012a) refers to the most

frequently-used tourism keywords, the division of search tasks and the sharing of search results during the collaborative searches. Most respondents (71.4%) mentioned that the phone was used as the medium of collaboration, with e-mails accounting for 60%, and the other media (face-to-face and Web inquiries) for 31%. Based on the participants' responses, the desired features of the TCIS system include synchronous and asynchronous sharing and discussion, the capability to provide a past search history and feedback, chat, voice, and video call options, and searching, saving and sending options in the same window, and an organizer to support planning tips. Some of these desired TCIS tasks have been achieved through smartphones.

3 Conclusion

The information needs of travellers are complex and dynamic, which are conditioned by trip stages and individual factors (e.g., trip purpose, weather, and transportation). Qualitative methods, including observation and video recording were the two approaches employed by the most studies. Most of research examined the TCIS in synchronous situations for way-finding and alternative travel plan. The new generations of mobile technology would be able to assist TCIS in various trip stages. Future research effort should examine TCIS in other quadrants.

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