# Chapter 2.13 Social Navigation and Local Folksonomies: Technical and Design Considerations for a Mobile Information System

Mark Bilandzic Technische Universität München, Germany

Marcus Foth Queensland University of Technology, Australia

# ABSTRACT

Web services such as wikis, blogs, podcasting, file sharing and social networking are frequently referred to by the term Web 2.0. The innovation of these services lies in their ability to enable an increasing number of users to actively participate on the Internet by creating and sharing their own content and help develop a collective intelligence. In this chapter the authors discuss how they use Web 2.0 techniques such as "folksonomy" and "geo-tagging" in a mobile information system to collect and harness the everyday connections and local knowledge of urban residents in order to support their social navigation practices.

# NTRODUCTION

Our physical world holds certain characteristics that enable us to interpret what other people have done, how they behaved, and where they have travelled. Sometimes, we can see traces on physical objects that provide hints about people's actions in the past. Footprints on the ground left by previous walkers can show us the right way through a forest or, in a library, for example, dog-eared books with well thumbed pages might be worthwhile reading as they indicate the popularity of the text. The phenomenon of people making decisions about their actions based on what other people have done in the past or what other people have recommended doing, forms part of our everyday social naviga-

DOI: 10.4018/978-1-60566-208-4.ch005



Figure 1. CityFlocks is placed in an interdisciplinary field, embracing topics in social navigation, mobile spatial interaction and Web 2.0 technology

tion (Dourish & Chalmers, 1994). In contrast to physical objects, digital information has no such 'visible' interaction history *per se*. We do not see how many people have listened to an MP3 file or read a Webpage. In a digital environment people do not leave interaction traces, leaving us, according to Erickson and Kellogg (2000), 'socially blind'. However, the high value placed on social navigation in the physical world has motivated people to start thinking about it as a general design approach for digital information systems as well (A. Dieberger, 1995; A. Dieberger, 1997; Forsberg, Höök, & Svensson, 1998; Svensson, Höök, & Cöster, 2005; Wexelblat & Maes, 1999).

This chapter explores some of the technical and design considerations that underpin the conception and development of a mobile information system called *CityFlocks*. It enables visitors and new residents of a city to tap into the knowledge and experiences of local residents and gather information about their new environment. Its design specifically aims to lower existing barriers of access and facilitate social navigation in urban places. The technical development phase and the empirical usability research of *CityFlocks* has been reported elsewhere (Bilandzic, Foth, & De Luca, 2008). The purpose and focus of this chapter is to discuss the underlying design concepts that informed this social software. These concepts are positioned at the intersection of three broad areas of research and development that inform humancentred and participatory methods for designing interactive social networking systems on mobile platforms: social navigation, Web 2.0, and mobile spatial interaction (Figure 1).

First, the concept of social navigation and how people make use of it in the physical world are examined. Relevant previous studies and examples are discussed that apply social navigation as a design approach, e.g., for virtual information spaces on the Web. Based on the success and popularity of what has now been coined 'Web 2.0' services, the second part of this chapter analyses a number of Web development trends that foster participatory culture and the creation and exchange of user generated content. Some of these developments that introduced more and more social interaction and navigation methods to the Web, such as user participation, folksonomy and geo-tagging, were reappropriated to inform the design of CityFlocks. Given new generation mobile phones that allow global positioning, Web 2.0 technologies that were initially aimed to facilitate social navigation on the Web, can now be used to facilitate social navigation in physical places. The third part of the chapter discusses related projects in 13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/social-navigation-local-folksonomies/39746

## **Related Content**

#### Identifying Opinion Leaders for Marketing by Analyzing Online Social Networks

Niyoosha Jafari Momtaz, Abdollah Aghaieand Somayeh Alizadeh (2011). International Journal of Virtual Communities and Social Networking (pp. 43-59).

www.irma-international.org/article/identifying-opinion-leaders-marketing-analyzing/60541

#### Digital Social Media in Adolescents' Negotiating Real Virtual Romantic Relationships

Catherine Ann Cameronand Arantxa Mascarenas (2020). *The Psychology and Dynamics Behind Social Media Interactions (pp. 1-24).* 

www.irma-international.org/chapter/digital-social-media-in-adolescents-negotiating-real-virtual-romanticrelationships/232560

## Opportunistic Networks: A Taxonomy of Data Dissemination Techniques

Radu Ioan Ciobanuand Ciprian Dobre (2013). International Journal of Virtual Communities and Social Networking (pp. 11-26). www.irma-international.org/article/opportunistic-networks/96874

## Trust Management Models for Digital Identities

Prasann Pradhanand Vikas Kumar (2016). International Journal of Virtual Communities and Social Networking (pp. 1-24).

www.irma-international.org/article/trust-management-models-for-digital-identities/168625

#### Trust Management Models for Digital Identities

Prasann Pradhanand Vikas Kumar (2016). International Journal of Virtual Communities and Social Networking (pp. 1-24).

www.irma-international.org/article/trust-management-models-for-digital-identities/168625