

Information in Context: The Mobile Environment

Ayşe Göker

Centre for Interactive Systems Research, Department of Information Science, School of Informatics, City University London. Email: ayse.goker.1@soi.city.ac.uk

Abstract

People are ever busier, and increasingly want useful information in easily digested bite size pieces, delivered to them as efficiently as possible. The use of mobile devices combined with current and future information access and retrieval technologies can rejuvenate the publishers' existing offerings as well as suggesting new ones. However, publishers cannot simply cut and paste content to fit the display constraints of a small device, and the opportunities of the mobile environment extend beyond the use of location.

Individuals use mobiles in many aspects of their lives including work and leisure, and publishers need to be aware of the different orientations of users depending on their context of use. Mobile search has a distinctive nature which is different from traditional desktop-based searching. The success of digital publishing in the mobile environment will depend not only on the design and presentation of the underlying content, but also on nature and effectiveness of the mobile search facilities. Furthermore, in this more dynamic environment, there are many more circumstances of use and shifts in context, driven by links to the physical world and triggers within it.

Information is a key part of our lives. However, the amount of available digital information continues to grow at a tremendous rate along with increasingly diverse forms of media and communication channels. To mitigate the effects of information overload, we need to create paths through the information space for users to navigate and manage their needs. The key enabler for this is to use context information. Context information provides an important basis for identifying and understanding people's information needs. A key challenge is making more information accessible whilst also ensuring it is relevant and useful for users' information needs.

Context includes aspects of the situation, such as location, but can also include the user's task, their environment, the device that they are using for accessing information, their personal interests, and their social interactions. Additional reasons for the importance of context include: timely delivery, better matching of user expectations and experience, and better potential for linking with advertising. This was evident in early work on personalization of web search and is increasingly clear for the mobile information environment.

User studies are essential for designing and evaluating new products and methodologies that meet the needs of real users. It is important to test developed applications in naturalistic contexts and not to make only theoretical assumptions about users' needs and activities. This presentation will argue that user studies should be conducted in a realistic way and will provide example applications from travel and tourism.

The future of electronic media depends on refining our understanding of what constitutes the step-change in mobile usage and developing innovative applications to satisfy emerging needs.

Keywords: *Mobile search; mobile information retrieval; contextual information.*

Short Bio

Dr. Ayşe Göker is a senior academic at City University London. Her research since the early '90s has focused on developing novel search techniques and environments, with an emphasis on personalized and context-sensitive information retrieval and management systems. These occur particularly within mobile and wireless computing, and also in bibliographic and web environments. Her skills are in identifying user needs and developing innovative systems that meet them. On the teaching

side, Ayşe has developed course modules in information systems at both postgraduate and undergraduate levels.

She has been successful on international collaborations, with designing innovative projects and managing teams to implement them. She co-proposed and was project leader for the AmbieSense EU-IST project, whilst at Robert Gordon University, Aberdeen, Scotland. AmbieSense was a large project on ambient, personalised and context-sensitive information for travelers and tourists. Ayşe followed the project through as co-founder to establish AmbieSense as a company. Other research projects have been in adaptive information systems, image retrieval, and contextual information retrieval.

She has a BSc Honours in Computer Science and a PhD in Information Science from City University London. After her PhD she went as an academic to Bilkent University, Ankara, Turkey. Later she obtained a readership in Aberdeen, Scotland before returning to City. She has published widely in information retrieval, adaptive systems, machine learning, mobile and pervasive/ubiquitous computing, and interactive systems. She is on the Editorial Board of *JASIST*, and has recently edited a book in *Information Retrieval: Searching in the 21st Century*, by Wiley, 2009. She holds a lifetime Enterprise Fellowship from the Royal Society of Edinburgh and Scottish Enterprise. More recently she was selected for the Massachusetts Institute of Technology (MIT) Entrepreneurship Development Program in Boston, USA. In her profession, she has been the Chair of the British Computer Society's Specialist Group in Information Retrieval, BCS IRSG (2000-2005). She became a finalist in the Blackberry Women & Technology Awards (2005) for Best woman in technology (Academia).