Laura Naismith, University of Birmingham, United Kingdom

Mike Sharples, University of Birmingham, United Kingdom

Jeffrey Ting, University of Birmingham, United Kingdom

Laura Naismith is a Research Associate at the University of Birmingham's Centre for Educational Technology and Distance Learning (CETADL). Her current research interests include the design of mobile technology to support learning in museums and the design of technology to support continuing professional development. Her recent publications include an activity-based literature review of mobile technologies and learning, commissioned by NESTA Futurelab.

Mike Sharples is Professor of Educational Technology at the University of Birmingham and Director of the University's Centre for Educational Technology and Distance Learning (CETADL). His current research interests include human-centred design of learning technology, the theory and development of mobile learning, and application of models of cognition and social interaction to the design of technology for learning and knowledge working. He is the author of 7 books and over 150 other publications in the areas of interactive systems design, artificial intelligence and human-computer interaction.

Jeffrey Ting is a Software Engineer at the University of Birmingham's Centre for Educational Technology and Distance Learning (CETADL). His current interests include software technologies for mobile platforms, wireless computing, and database-driven web applications. His recent publications include a wireless networking guide published electronically in collaboration with Microsoft.

Evaluation of CAERUS: a Context Aware Mobile Guide

This paper reports on the results of a user evaluation of CAERUS, which is a complete context aware educational resource system for outdoor tourist sites and educational centres. CAERUS consists of a handheld delivery application and a desktop administration application (see Figure 1 and 2) and provides a visual interface to add new maps, define regions of interest, add theme-based multimedia tours, and deliver this information to visitors through Pocket PC devices with GPS capability. Fourteen participants used CAERUS in the University of Birmingham's Botanic Garden at Winterbourne in May 2005. Participants reported high satisfaction with the location-based content provided, particularly the audio commentary. Significant problems with positioning and navigation were experienced, especially amongst the participants using the system in 'guided tour' mode. Younger and older visitors differed in opinion as to how easy CAERUS was to learn and the clarity of the user interface. The main effect of CAERUS with respect to learning was to increase the participants' engagement with their physical surroundings.

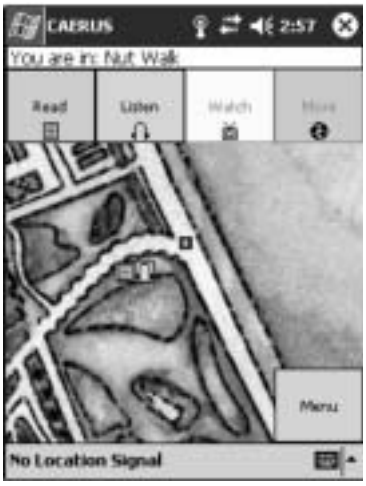

Figure 1: CAERUS Handheld Interface (Theme Mode)

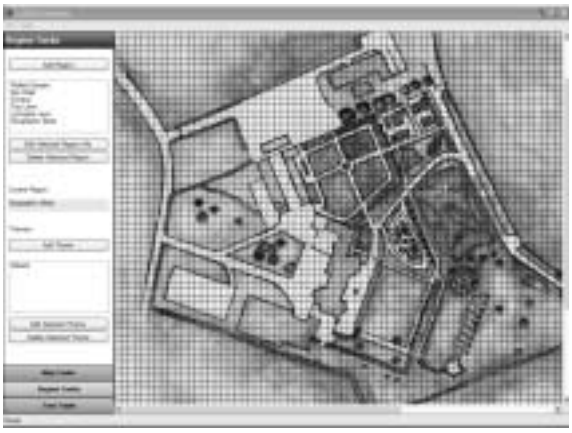

Figure 2: CAERUS Desktop Interface