

Geovisualization Working Group Abstract

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Ubiquitous visualisation

The proliferation of consumer electronics devices that are Global Positioning System (GPS) enabled has led to an increase in the availability and quantity of data that is geo-located. The position of where certain data has been captured, photographs taken, or places visited can be easily and quickly appended to files generated by a portable device. Related to the capture of information and the subsequent geo-coding has been the need to make sense of this data. Mobile and ubiquitous computing allows this to happen in the contexts most relevant to the people making use of it.

Geovisualisation, the viewing of data with an element of location through the frame of that location, has become an important method for sense-making and knowledge discovery (Dykes et al., 2005, Fabrikant & Lobben, 2009). Recent research in this relatively new field has positioned it as being more akin to “geovisual analytics”, with an emphasis on the cognitive elements of data exploration through highly interactive interfaces rather than simple, static displays. Whilst the focus of research has shifted to this more interactive model, it still views the desk-tethered screen as mediator between people and information. With equal increases in the potential and affordability of mobile computing, this separation of data from the contexts in which it is relevant is no longer necessary. Not only is data about locations, but its actual use is increasingly likely to be situated in these same places.

Building on research in Computer Supported Collaborative Work (CSCW), Ubiquitous computing and HCI, I will discuss and invite feedback on how information about places can be used and visualised *in situ* – that is, in the contexts in which it is most relevant. By decreasing the gap between people and the information they use, it is proposed that a context sensitive and location-based service can be designed to help people create new knowledge from information about places. It is further proposed that the kinds of knowledge generated through this situated use are of a different quality than that generated on a desktop, away from the environments it describe.