Making Glue: Public Authoring in Urban Tapestries

Karen Martin and Giles Lane

Abstract

Urban Tapestries (UT) is a spatial annotation system allowing participants to contribute text, images, video and audio that are geo-tagged and positioned over a graphical street map of London; but even more than this it is about describing relationships to people, places and things. This 'experimental software platform for knowledge mapping and sharing' [1] exists within the Social Tapestries (ST) research programme established and directed by Proboscis, an artist-led studio[2]. From its inception, UT has promoted the concept of 'public authoring' as a means to make tacit knowledge contained within a community explicit and available to all members of that community. This paper considers how public authoring is related to the notion of shared encounters through projects using, and building on, the Urban Tapestries platform.

Shared Encounters and UT

The aim of the Social Tapestries programme is to explore what it is about local places that matter to people in their everyday lives: going to school, going to work, shopping, dealing with neighbourhood issues, planning, access to local services and so on [5]. The uses that this can be turned to are many: recording local history, recording council maintenance activity, education, social networking etc. ST found that people use 'space' to communicate relationships (to people, places and things), and UT is a technological platform to support and extend these relationships [6]. At the core of this lies *social knowledge*, a term used in ST to refer to the ephemeral communications that are the glue of society and communities: the everyday and essential sharing of information, stories, knowledge, memories and stories with friends, family, neighbours and strangers.

De Certeau suggests that the city is meaningful only in the familiarity of our experience of it, that, "we walk, and as we walk we make sense" [3] That is, our experience of the city is the result of physical and symbolic movement through the urban environment. Yet, practical experiences with UT have indicated that simply making available shared and shareable overlays on the sidewalks of the city, is not enough to make such spontaneous encounters into community 'glue'. These projects have demonstrated that it is also necessary for infrastructure to be in place to support the development, growth and transformation of a community around such shared technological encounters. Otherwise, there is a real danger that mobile and urban computing projects – including UT – will only produce more noise, adding yet more digital emissions to the already oppressive pollution of much of our urban space. While not excluding the ad-hoc encounters of passers-by, this view incorporates these encounters within the more grounded relationship of neighbourhood and community.

Applied uses of UT: The Robotic Feral Authoring Project investigates air pollution. (a) The robot that collects the geo-tagged air quality data, (b) The collected data mapped onto UT web client

History and Current State

UT was initially created in 2003 to run on PDA's and has continued to be developed as its design and use is evaluated through projects in local communities [7]. Initially, the geographic area covered by Urban Tapestries was restricted to central London as access to suitable maps was limited and there was a lengthy process of transforming those maps into the appropriate format. However, UT had always been designed to be able to work with more than one kind of GIS system, consequently UT was able to 'exploit' the new trend in online mapping very easily once it was available. The use of online mapping services (currently Google maps) greatly extended the geographical scope and public accessibility of UT. Currently, UT has a mobile platform for java-based mobile phones, and a fixed location, web-based platform.

Evolution of the Urban Tapestries interface: (b) PDA-based user interface using mesh-networking connectivity (2002), (c) native mobile phone client on the Ericcson P800 (2004), and (d) Java based client with Google maps (2006).

In Urban Tapestries, individuals create relationships between places and social knowledge by composing pockets of information located around the city. Pockets contain text, image, audio or video content and can be woven into threads. Threads are thematic collections of pockets overlaid on the urban environment representing the relationships that can exist between individual pockets of information. Rather than thinking of pockets as pins on a map linked in a linear fashion, the thread metaphor is deliberately loose and flexible and with pockets considered more like anchor points.

One inspiration for ST/UT was Mass Observation [Hubble 2005], a UK social research organisation founded in 1937 and operated until the mid-1950 (revived in 1981 at the University of Sussex) with a view to record all aspects of everyday behaviour in the country. Extending this through new technologies, UT allows people not only to create their own multi-media repository of local knowledge about the architecture, communities and history of London, but also to access, browse and edit this information; a concept known within ST as *public authoring*.
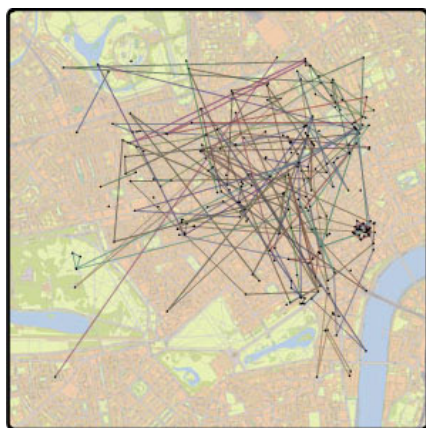
Public Authoring as Glue

Public authoring is the term used in UT to describe the mapping and sharing of knowledge, information, data, memories, stories and experiences [4]. This suggests an alternative *experience commons* in contrast to the traditional broadcast model for dissemination of information. Public authoring presents the opportunity for people to be agents, actors and authors as well as consumers. In UT the principle of public authoring also implies the possibility for dialogue between individuals through the creation of content. Four principles guided the design of UT and related experiences that were seen as critical to respect the essence of this concept of public authoring and foster its adoption by communities:

Co-creation: Public authoring relies on the co-creation of its own content by the people who participate in sharing it, rather than the consumption of mass-produced content offered by media organizations.

Decentralisation Maintenance and distribution of publicly authored content is carried out in a cooperative and largely anonymous fabric. Sharing of the kinds of knowledge, stories, memories and information that people think will be of interest to others is supported by a network or peers and depends on trust networks, risk and chance to validate its content rather than depend on top-down validation by authoritative sources.

Organic Publicly authored content grows and fades with time, at the pace set by the people who participate in it. It is both the layering and excavation of layers of knowledge and experience – a real-time microcosm of how our cities and communities develop, change, prosper and die.

People-centric The main role of public authoring is to augment and assist our everyday life rather than seek to replace any aspect of it. It is the trigger for social encounters and enables participation in social and community activities. As such, priority is given to those facilities that empower individuals and communities rather than those dictated by engineering or technical constraints.

(a) Pockets and threads on the original UT interface

In the long term, the practice of public authoring can offer new opportunities for people to intervene in situations and contexts that have previously been tightly controlled. One example of such intervention is offered by an ST project with participation by residents of the Havelock Estate in Southall, Ealing. Residents of the estate were involved in public authoring activities with a view to recording local knowledge to support the operation of a tenant management organisation. In this case, it appears that a public authoring approach may far exceed the possibilities offered through established council management services. However, during the course of this project it was apparent that technological solutions can only go so far; one critical – and unpredictable – variable in the success of projects of this kind is the engagement, commitment and relationships of the participants. This realization further supports our belief that technologically mediated shared encounters cannot exist in isolation of existing networks, social and otherwise.

Conclusion

Within UT, technology is used to mediate spatial and social relationships. Although, like many spatial annotation systems, geo-tagged content is correlated with a geographical map, in UT there is no requirement for actual movement around the physical environment in order to contribute to, or view, this content.

Rather than using synchronous proximity of participants as a catalyst social interaction, Urban Tapestries creates relationships between individual pieces of social knowledge to facilitate and support a sense of community. People come together around the sharing of knowledge about a particular place, an activity which can span an extended period of time. Seen in this light, UT provides a way of marking the significance of place for both the individual and the communal.

Shared encounters may indeed be the glue that keeps communities together. But while technology may be able to overcome the potential anonymity that urban life brings about, we believe that this, in itself, will not make a strong enough glue. Public authoring allows communities to create, maintain and moderate their own content around which shared encounters might develop. UT goes further in allowing the creation, dissemination and focusing of community interests in such a way to allow the organic development of community.

Reference

1. West, N. 2005. Urban Tapestries: the spatial and social on your mobile http://proboscis.org.uk/publications/SNAPSHOTS_spatialandsocial.pdf, Proboscis
2. Proboscis. http://proboscis.org.uk/
3. de Certeau, M., 1984, The Practice of Everyday Life, trans. Steven Rendall, University of California Press, Berkeley.
4. Lane, G., 2003, *Urban Tapestries: Wireless networking, public authoring and social knowledge*, Personal and Ubiquitous Computing, 7(3-4), pp. 69-175.
5. Lane, G., 2004, Social Tapestries: Public Authoring and Civil Society http://proboscis.org.uk/publications/SNAPSHOTS_socialtapestries.pdf (Accessed 19/01/07)
6. Lane, G., Thelwall, S., Angus, A., Peckett, V. and West, N., 2006 (second edition), Urban Tapestries: Public Authoring, Place and Mobility, http://socialtapestries.net/outcomes/reports/UT_Report_2006.pdf (Accessed 19/01/07)
7. Jungnickel, K., 2004, Urban Tapestries, Sensing the City and Other Stories, http://proboscis.org.uk/publications/SNAPSHOTS_sensingthecity.pdf (Accessed 19/01/07)