Nnub: Getting to the Nub of Neighbourhood Interaction

Fiona Redhead Andrew Dekker University of Queensland +61417631223 fiona@itee.uq.edu.au Margot Brereton Queensland University of Technology and ACID, Australasian Centre for Interaction Design +61411745488 m.brereton@qut.edu.au

Ian MacColl University of Queensland and ACID, Australasian Centre for Interaction Design +61421060015 ianm@itee.uq.edu.au

ABSTRACT

The enduring methods of communication in our local communities are face to face meetings, hand delivered flyers, physical noticeboards, printed local newspapers and Council web sites, the latter being subject to editorial control. There is significant potential for use of electronic displays in local communities, because they harness the display power of the local noticeboard in a shared local place and combine it with the ability to view and post at leisure at home. They could expand the capacity for user content generation and open community expression. Yet, few such displays exist.

It seems likely that we do not yet understand sufficiently the combination of the nature of community communications, neighbourhood politics and use in order to make such displays work for communities, sustained by community content generation alone, rather than by editors or champions. In this paper, we describe the design and research context of a digital community noticeboard for the Brisbane suburb of Moggill.

Categories and Subject Descriptors:

H.5.m [Information Interfaces and Presentation]: Miscellaneous.

General Terms: Design, Human Factors

Keywords: Situated Display, Interaction Design, Community Informatics, Grounded Theory, ICT.

1. INTRODUCTION

The Brisbane City Council (BCC) administers a larger population than any other local government area in Australia and is engaging residents in planning for Brisbane's future with initiatives that aim to document plans for neighbourhoods to the year 2026 [1]. However, population growth in Brisbane has been rapid and residents continue to take action against proposed government and private development. Residents also work hard to promote development of local community facilities such as community halls and to build knowledge about the local environment.

Conference'04, Month 1-2, 2004, City, State, Country.

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Our research aims to understand how residents communicate in reference to local interests and design Information and Communication Technology (ICT) for local community communications. Qualitative research findings have informed the design of a community digital noticeboard situated in a local store in the western suburbs of Brisbane, an environment where many people with varying interests in the local community, and varying ICT knowledge and access pass by in their everyday routines.

2. RESEARCH CONTEXT

Our research of local communications in the western suburbs of Brisbane includes long-term participatory observations of local community association members email communications, short-term participatory observations at public meetings, and open interviews with local community leaders. Analysis of the collected data revealed a hypothesis that local resident private-strategic activities evolve Communities of Practice (CoP) [2] that ultimately suffer from passive membership due to an expectation that only experienced and active members are capable of successful action. To compound this problem, active member withdrawal from local CoP activities due to burnout results in loss of knowledge associated with the individual [3].

These research findings informed the design of a community digital noticeboard for the suburb of Moggill in Brisbane's western suburbs. The first installation is situated at the Moggill General Store and displays notices and photos uploaded by users via a website. Moggill has changed in recent years with pineapple farms and open land replaced with new housing developments, and major arterial roadwork including four new bridges proposed for the semi-rural setting. Local residents have worked hard together to convey to outsiders such as government officials and private company representatives their reasoning for opposing development, and more recently (with the resulting increase in population) the need for funding of public buildings such as a community hall.

The design intention for the community digital noticeboard is to engage residents with simple interactions that afford collection of local community content for public display and as reference for discussion with both local and non-local people. The collection may include hypertext links (inserted in notices) to existing online content such as flicr.com content, or local community website content. Churchill et al. researched connections between online and offline community participation using large screen displays and documented that public displays can aid the presence of online information [4]. Reasoning and discussion with outsiders about development

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is often abstracted or unrelated to the sense of place that people understand from living in a place and having everyday life experiences. Photos may offer a reference for people to better describe or understand their interests. Taylor et al. have found historical photos are the most requested photos for display on the Wray Village photo gallery public display [5]. Fitton et al found that it was important to investigate factors such as use and appropriation when designing community displays [6].

3. NNUB.NET

The name for the community digital noticeboard is nnub. The Australian Oxford Dictionary defines nub as a point or gist (of matter or story). The Moggill community digital noticeboard could be considered a neighbourhood nub where the point or gist of the neighbourhood is captured in text and images uploaded by local people. Neighbourhood nub has been abbreviated to nnub.



Figure 1: nnub public display notices in shuffled view.



Figure 2: nnub.net home page.

The Moggill general store and school are located opposite each other and together create a community hub that people use for everyday activities such as collecting children, and for community events such as public meetings and school fetes. The Brisbane City Council bus service also stops near to the Moggill general store and school. The digital noticeboard is situated in the Moggill General Store to allow rapid perusal of community content in a place that is passed by many local people frequently.

Notices and photos (output) are displayed to people at the store on a large screen LCD monitor with touch screen functionality. The public display allows browsing (no searching) through categories of notices and photos via a touch screen and is the most likely introduction local people will have to nnub. Categories for the notices mimic the categories of the store's non-digital noticeboard. A simple web interface allows any user to search and browse notices and photos, and registered users to upload, edit and comment posts. A desktop computer is installed at the shop to provide web interface access and examples of use to people without computer access or knowledge. Viewers can direct requests for moderation to the administrator using both the public display and web interface.

No observational study or usage logging data has been analysed to date, as nnub has only been installed for a few weeks at the time of writing this article. Design iterations will be grounded in the research analysis of collected data, and consider work related to this research. Later versions are envisaged to test more functionality that aims to afford and sustain connectivity for people in Moggill and surrounds, without over complicating the interactions that people need to perform.

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5. REFERENCES

- Brisbane City Council: Neighbourhood Planning. Retrieved October 29, 2007, from Brisbane City Council www.brisbane.qld.gov.au/neighbourhoodplanning
- [2] Wenger, E. 1998. Communities of Practice. Learning, Meaning, and Identity. Cambridge University Press.
- [3] Redhead, F. and Brereton, M. 2006. A Qualitative Analysis of Local Community Communications, In Proc. 20th conf. of CHISIG of Australia on Computer-Human Interaction (Sydney, Australia, November 22-24, 2006). OZCHI '06. ACM Press, New York, NY, 361-364. DOI= http://doi.acm.org/10.1145/1228175.1228245
- [4] Churchill, E., Girgensohn, A., Nelson, L. and Lee, A. 2003. Weaving Between Online & Offline Community Participation. In Proc. HCI Ninth IFIP TC13 Conf. (Zurich, Sept 1-5), INTERACT. IOS Press, Amsterdam, 729-732.
- [5] Taylor, N., Cheverest, K., Fitton, D, Race, N., Rouncefield, M., Graham. 2007. Probing Communities: Study of a Village Photo Display. Forthcoming OzCHI 2006, Adelaide.
- [6] Fitton, D., K. Cheverst, C. Kray, A. Dix, M. Rouncefield and G. Saslis-Lagoudakis, "Rapid Prototyping and User Centred Design of Interactive Display based Systems" IEEE Pervasive Computing. Oct-Dec 2005. pp 58-66. 4(4).