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# Sharing Rural Heritage with Public Situated Displays

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**Abstract**

The Wray Photo Display was deployed in a small rural community for over three years, where it collected a large number of photos relating to the community's history. In this paper we summarise the project and explore other ways in which photographic content that supports the community's heritage might be presented.

**Introduction**

Our work has focused on the use of public, situated digital displays to support a sense of community in rural environments by sharing community content. Our approach towards this goal has involved working closely with residents in Wray, a village in North West England, and deploying a functional prototype display into the village to inspire ideas and allow residents to gain experience with a situated display.

The Wray Photo Display [4][5] was developed as a simple prototype capable of displaying photos uploaded by community members. The display was deployed from August 2006 till February 2010, when it was replaced by a successor system that combined photo content with events and advertisements from the community. For most of this period, the display was located in the village post office (Figure 1) and over 1,000 images were uploaded by the community, most



**Figure 1.** The Wray Photo Display deployed in Wray's village post office.

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depicting the village's history or recent community events.

The decision to support photo content was inspired by existing displays of photographs in the village hall and pub which depicted the village's history. Memories of a community's past is a critical component of the 'sense of community' defined by McMillan and Chavis [3], who identified a mutual shared history as a contributing factor to the feeling of 'belonging', even amongst those whose roots are not in the community.

### **The Wray Photo Display and Heritage**

The Photo Display is, of course, not the first example of a technology supporting community heritage. Much of the earliest work investigating local intranets or 'community networks' found that such tools supported the recording of history in a community. To take a well-known example, studies of the Blacksburg Electronic Village [1] saw various groups within the community maintaining pages which celebrated the town's history, including input from local schoolchildren. However, community-centric situated display deployments have typically concentrated on awareness of current events and individuals in the community rather than the past.

When deployed, we made no suggestions regarding appropriate content for the display other than uploading a number of our own photos of that year's annual Scarecrow Festival to provide some initial content. At first, photos could only be uploaded to the display by a designated administrator using a private web application, but residents still requested specific content using a paper comments book which was left next to the display, again with no prescribed appropriate usage. Within days of the initial



**Figure 2.** Examples of Photo Display content depicting the community's history.

deployment, several residents began to request historical photos of the village be posted on the display, demonstrating a strong interest in "the way things were" and suggesting that the display could record a "living history" of the village.

Shortly afterwards, we expanded the web application to allow other members of the community to upload their own photos, and they did so enthusiastically. Of the 1,359 images uploaded to the Photo Display, 244 (18%) were in the historical images categories (Figure 2), many of them showing Wray in the early 20<sup>th</sup> Century, or depicting a flash flood that swept through the village in the 1960s, destroying many buildings—a key event in the village's history. During the early stages of the project, the proportion of historical images was much higher, but contemporary photos have continued to grow while no new historical content is available.

Many of these photos were sourced from individuals' private collections and had not previously been on display, despite having significance to many members of the community. Although these photos could have easily been shared on any number of websites or paper displays prior to the display being deployed, the presence of a novel photo sharing device appeared to act as a catalyst that prompted residents to share their collections for the first time. The display was also a far more visible means of sharing these photos, one which a large section of the community could access and would see on a regular basis, rather than web-based collections that must be sought out by the user.

Despite the previous lack of online photo sharing in the community prior to the display's deployment, this

behaviour emerged afterwards. The original prototype did not allow the content to be browsed online, which was subsequently requested by many residents. While this feature was in development, the administrator of the village website added photo galleries to meet this demand.

In addition to historical content, the Photo Display also amassed 1,094 photos of current events in the community. While the historical photos are a more obvious representation of the community's heritage, these current photos have the potential to become the heritage of tomorrow.

### Steps to Improve Heritage Support

Recently, we have been somewhat concerned that the

use of prototypes to inspire ideas and feedback from residents might have limited the possible scope of designs. Although the design of the display did change substantially over the course of the project, it remained broadly within the same design space: a touch screen displaying a set of thumbnails though which the user could scroll. There are clearly a multitude of possible designs for situated displays, varying by size and interaction techniques, including vastly different forms of display such as abstract ambient displays. Even within the current form factor of a touchscreen monitor, there are numerous ways in which the display's content could be presented other than the gallery format employed by the existing prototypes.

For example, advertisements might be presented in a



**Figure 3.** The existing Wray Photo Display interface and mock-up showing photos displayed geographically and temporally.

fashion reminiscent of a paper noticeboard (a design utilised by many digital noticeboard implementations), or photos of Wray might be presented either geographically on a map or temporally on a timeline (Figure 3). A map might be particularly valuable during the Scarecrow Festival given the number of visitors who seemed to use photos on the display as a 'checklist' of good scarecrows to visit. This was in fact explored by the LocoMash deployment at Wray Fair in 2007 [2], which allowed photos taken during the event with GPS-enabled phones to be mapped on a display in real-time. This might also be a valuable means of presenting historical photos, particularly since changes to the village, including those wrought by the famous flood, have made it difficult to reconcile historical photos with the modern Wray. In this example, users might be able to step through changes to the village over time by viewing photos from a certain time period only.

One potential problem with designs that utilise dates and locations might be the lack of such meta-data associated with images. However, we have had some success in crowdsourcing this information from residents. After the ability to post comments on photos was first introduced following a major redesign of the system, this feature was often used to post information about historical photos or request that this information be posted by others, particularly the identities of individuals pictured and especially on group photos.

### **Summary**

The Wray Photo Display has demonstrated the role that situated displays can play in supporting community heritage, both by acting as a repository of historical and contemporary content that is easy to use and located in

a public, community space and by promoting content sharing behaviours that had not previously existed. Although this display has proved to be extremely popular, there are clear possibilities in exploring alternative presentations to better support browsing of this content.

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### **References**

- [1] Carroll, J.M., and Rosson, M.B. Developing the Blacksburg Electronic Village. *Communications of the ACM* 39, 12 (1996), 69-74.
- [2] Cheverst, K., Coulton, P., Bamford, W., and Taylor, N. Supporting (mobile) user experience at a rural village 'scarecrow festival': a formative study of a geolocated photo mashup utilising a situated display. In *Proc. MobileHCI 2008 Workshop on Mobile Interaction in the Real World* (2008).
- [3] McMillan, D.W., and Chavis, D.M. Sense of community: A definition and theory. *Journal of Community Psychology* 14, 1 (1986), 6-23.
- [4] Taylor, N., Cheverst, K., Fitton, D., Race, N.J.P., Rouncefield, M., and Graham, C. Probing communities: study of a village photo display. In *Proc. OZCHI 2007*, ACM (2007), 17-24.
- [5] Taylor, N., and Cheverst, K. Social interaction around a rural community photo display. *International Journal of Human-Computer Studies* 67, 12 (2009), 1037-1047.