

The Talking Quilt: Augmenting Domestic Objects for Communal Meaning-Making

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ABSTRACT

The Talking Quilt is a traditional textiles quilt that has been augmented with digital technology to allow for enjoyable and reflective engagement. Produced by over 80 staff, volunteers and visitors to an urban city farm in East London, the quilt presents a snapshot of the farm at this point in time. New technology in the form of RFID (radio frequency identification) buttons that trigger playback of oral history interviews is used to bring the everyday domestic object to life, to make it contemporary, and to augment the experience of interacting with it without changing its qualities as a visual, tactile, and hand-made object. Rather than aiming for a solely playful interaction, the research looked at how socially meaningful themes integral to the quilt – i.e. food, food growing and community – could be communicated through the interaction to a collective audience.

Author Keywords

Interaction, craft, tangible computing, community.

INTRODUCTION

The Talking Quilt is an intergenerational, eco-literacy art project that presents a snapshot of Spitalfields City Farm in East London at this point in time. Measuring 2 x 1 metres, it consists of over a thousand hexagonal fabric patches, many of which have been hand-printed and painted by participants in workshops, and with specific significance to their makers’ lives. Workshop facilitators recorded participants’ thoughts and memories around food, food growing and community. RFID (radio-frequency identification) tags are embedded in the quilt. Audiences can wear an RFID-enabled oven-glove to scan the hotspots and playback the oral history interviews.

RELATED WORK

Other projects exist that look at augmenting everyday domestic objects with new technology to enhance people’s engagement with them. We are interested in those that focus on objects with intrinsic value *without the technology*; digital media is used to add a new dimension to the experience. *The Html Patchwork* is a collaborative-

produced quilt made up of 216 fabric hexagonal patches and a wiki that provides a wikipage for each patch with photographs, textual stories and associations, relating to making the quilt and craftwork [1]. *Spyn* is a system for knitters to record, playback and share information involved in the creation of a hand-knitted artifact [5]. *Books with Voices* allows oral historians to scan barcodes placed in oral history transcripts to bring up the original interview recordings [4]. *The History Tablecloth* is a flexible layer placed on top of a domestic table, that lights up in lace-like structures when objects are placed on it [2]. However, none of these works bring to life the myriad oral histories of those involved in its making, whilst also to be experienced collectively by audiences. *The Talking Quilt* tries to address this gap.

DESIGN RATIONALE

The design challenge was how to merge the physical, social and technological aspects of the quilt in complementary ways. Like some of the examples mentioned above, we wanted to encourage an open-ended reflection and a ludic engagement from users, to allow for “playful explorations, new perceptions and reflections... not an experience to be passively consumed, but an intrinsically motivated and personally defined form of engagement”[4]. We also draw from Slow Technology’s aim to “use slowness in learning, understanding and presence to give people time to think and reflect” [3]. As it was made by many different individuals and groups, it was important for the collective labour to be evident in the technological intervention and for a communal reception to be possible. In addition, we wanted audiences to appreciate the quilt by viewing, scanning and listening simultaneously in a holistic way. The interaction had to support 150 tracks with over 50 different voices in a way that made sense.

IMPLEMENTATION

The quilt and interviews were created during workshops with participants at the farm. Fifteen RFID tags were embedded in the quilt, each with 10 audio tracks linked to it. A patchwork oven-glove holds an RFID reader, which is connected to a Lilypad Arduino and Xbee module. Audiences can wear the glove to scan an RFID tag and send its unique value wirelessly to a Processing sketch

which then plays one of the tracks linked to that value through speakers. Tracks can be layered by scanning a new tag before the previous track has ended.

EVALUATION

The quilt was evaluated over 3 exhibitions in which audiences were observed interacting with the quilt. In the first two exhibitions at open farm events, we video recorded the interactions and recorded interviews with audience members about their experiences. Ages ranged from 8 to 80, and audiences came from diverse cultural backgrounds and occupations.



Figure 1. Audiences interacting with the quilt at one of the public exhibitions

OBSERVATIONS/DISCUSSION

Audiences displayed different levels of engaging with the content of the quilt, which we have divided into three categories: a *surface engagement* in which users thought the quilt was a nice object but didn't really engage with the content; an *associative engagement* in which they got the general themes and had their own associations triggered, but made no reference to specific stories; and a *deep engagement*, where users made specific reference to the stories they heard. Most users understood the general themes: "It's about sharing. Sharing memories, sharing food"; "It's a lovely piece of collective work that seems to capture the excitement of food in different colours."; "It is a tapestry of conversations about community farming." Even when audiences had a surface engagement they found the experience "fun" and "cool". While many others remembered the stories, especially if told by someone they knew, or it triggered a personal or cultural association (e.g., "I remember one story about someone being made of fish and rice because they were Bengali and I'm half Bengali so I can relate to that one").

Audiences were divided by those who liked the complexity of the playback and visual aspects of the quilt, and those who would have preferred more order. Some described the quilt as "chaotic" and wanted the visual aspects to be more figurative. However, others found the complexity offered a richness: "If you wanted to find something specific in the sounds it would be quite difficult. But I think that's good because it just makes you explore"; "You can't really pick

out particular things but that seems the point of it, that you get all these different messages and you just take what you want from it."

Audiences' comments indicate that the quilt functions as an example of Slow Technology and Ludic design, giving people time to think and reflect [3]. For example, one user said, "Once I'd worked out how it works, it was nice, it slowed you down, it paid to interact with it in a slow gentle way....you can really pick up the meaning, the person talking about sharing, other people coming around to cook in their house, the woman whose mother was a dinner lady, the person remembering being in school....They stick in your mind. It is playful to look at. But it's much nicer to not be playful in using it, to work through the stories, hear them and take time with them."

Audiences also made reference to the collective nature of the quilt, and how it is made up of many individual's input: "It's the wonderful interplay between the collective and the individual that really makes it work as a...it's not just a piece of art...as a narrative, as a story." Another user said, "I love the idea of the voices, singly, but also the fact that they can be combined in this kind of waterfall of speech that just kind of washes over you."

CONCLUSIONS

We have presented *The Talking Quilt* as an example of an everyday, domestic object that has been augmented with new technology to support enjoyable and reflective experiences. It allows audiences to scan a traditional textile quilt in order to bring to life the stories of those involved in making it, as they talk about food and community. Future designs will incorporate ways for audiences to search and find a particular track. Areas of impact include museum displays, where touch is limited, as well as areas of accessibility, to allow those with limited ability in one modality to access artifact in another modality.

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