

# RememberMe: Digital Arts Intervention

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## ABSTRACT

This short paper reflects on a digital arts intervention at a second-hand shop in Manchester, UK. The work entitled RememberMe utilised RFID tags and two-dimensional barcodes to allow visitors to the shop the opportunity to listen to audio stories that were associated with objects that have been recorded by their previous owners. The artwork offered a tangible manifestation of an Internet of things in which the material instantiation of an artefact was complemented by immaterial information. The project team who developed the work found that the nature of the immaterial data encapsulated in a recorded memory, had a profound affect upon consumers and visitors to the shop.

## Keywords

Internet of things, RFID, QR, tagging, memory, stories.

## 1. CONTEXT

"Spimes are manufactured objects whose informational support is so overwhelmingly extensive and rich that they are regarded as material instantiations of an immaterial system. Spimes begin and end as data. They're virtual objects first and actual objects second." [1]

The term, 'internet of things', refers to the technical and cultural shift that is anticipated as society moves to a ubiquitous form of computing in which every device is 'on', and every object is connected in some way to the internet. The specific reference to 'things' refers to the concept that every new object will also be able to part of this extended Internet, because they will have been tagged and indexed by the manufacturer during production. The technology has enabled supermarkets to track the temperature of consignments of prawns from the fishing boat that caught them, to the in-store freezers, to following the life cycle of a product from cradle to grave, shelf to landfill. Tracked and monitored as they move around the world, objects are becoming networked and 'always-on' [2] a condition that means it will become harder to disassociate an object from its memories.

## 2. INTERNET OF OLD THINGS

However, in this interconnected landscape in which people

are surrounded by a web of 'new' objects that trigger connections to other 'new' objects, the authors are concerned with the memory and value of 'old' objects.

It has been suggested that people surround themselves with between 1,000 and 5,000 objects. Of those thousands of objects many of them are probably not truly cared for and end up in rubbish bins or in storage. But for every owner, in almost every household there are a selection of objects that hold significant resonance, and will already connect them to an Internet of memory and meaning. An intrinsic human trait is the process of imbuing meaning onto objects so that they provide connections to people, events and environments. Artefacts across a mantelpiece become conduits between events that happened in the past, to people who will occupy the future. These objects become essential coordinates across families and communities to support the telling of a stories and passing-on knowledge.

The authors are part of a large UK Research Council funded project entitled TOTeM (Tales of Things and electronic Memory) that provides a technical platform for the public to attach stories to their own artefacts by generating unique barcodes that can be stuck to the object for others to scan and retrieve the memory. As a cultural and technical exploration of the implications of this technology a project was presented at the FutureEverything digital arts festival in Manchester, UK in May 2010 (<http://www.futureeverything.org>).

## 2. REMEMBERME PROJECT

Developed in collaboration with the Oxfam charity shop in the student quarter of Manchester, a creative/technical intervention explored how memories that are attached to objects can affect consumer habits. Oxfam are a charity that has 700 shops in towns and cities across the UK. The shops receive donations of clothes and artefacts from people, and sell them on to new owners as second-hand goods. A research associate worked for one week in the Oxfam shop in Manchester and asked people that dropped things off to tell a brief story about the object into a microphone e.g. where they acquired it, what memories it brings back and any associated stories. These audio tracks were then uploaded to the Audioboo service (<http://www.audioboo.com>) and linked to newly created stories on the Tales of Things website (see section 3). One week later, with the permission of people involved, this audio track was linked to two-dimensional barcodes and RFID tags that were attached to the objects in the shop with a custom *RememberMe* label. Two dimensional barcodes, commonly known as QR codes (Quick Response) are a printed paper barcode that is able to contain an internet address, and like RFID Tags can easily be associated with information or data files. Figure 1 illustrates a screenshot of a tag attached to an artefact in the Oxfam shop.

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**Figure 1: Tale View in Tales of Things**



People browsed the shop used bespoke RFID readers and the Tales of Things iPhone and Android phone based applications to scan the labels. Once triggered, speakers located in the shop played back the audio stories associated with the label. Although the team anticipated an interest in the stories, we were surprised at how affective the very individual voices were upon visitors to the shop. The actual sound of somebody's voice associated with an object offered a supernatural extension to handling an artefact. People visiting the shop, browsing the objects and scanning the tagged donated items spoke of the "personal connections" made as artefacts conjured an actual voice that gave the object additional meaning. The red silk toiletries bag that had no history or geography was transformed into an object loaded with place and personality as the story of its previous owner described a shopping trip in Bangkok that involved a near death experience in a tuk tuk (Figure 2).

**Figure 2: Scanning the red silk toiletries bag**



*"Well my item is the little red silk make up toiletries bag its from a place called Narai in Bangkok and it was one of the very first things that I bought when I went to visit my uncle and his wide Noi who lived just outside Bangkok themselves and I believe if this is the shopping trip that I'm thinking of, I believe its also one of the very first times that I got a tuk tuk and nearly fell out, on the middle of the motorway, on the way back which I'm pretty certain it is actually so yeah that's my story and I risked life and limb to get that toiletries bag."*  
*Red Toiletries bag, Anonymous donor.*

The projects emphasis upon personal stories and not quantitative data such as price, temperature or other logistical data, offered a rich immaterial dimension to each objects material instantiation. The result of this supplementary information meant that every object (approximately 50 in total) was sold, even the types that are notoriously hard for a second hand shop to sell.

### 3. TALES OF THINGS

The RememberMe project relies upon a technical framework: Tales of Things. Tales of Things consists of a web application that provides a backend services that is able to connect different media to a unique two-dimensional barcode. People that register for a free account at Tales of Things can add new objects to a user-generated object database via a web browser interface. During this process they provide some (optional) information (e.g. name, keywords, location) and a story (tale) about the object (thing). Tales can be told using text and any additional media that can be referenced via a URL (Unified Resource Locator). The system is capable of analyzing provided URLs and rendering media from services such as YouTube, Flickr and Audioboo in an integrated media player interface.

When a new object is created the service creates a unique two-dimensional barcode (QR Code) for the object that can be printed out and attached to the object. People are also able to link the objects using RFID tags. The web interface provides additional functions such as a commenting system, a view of the location of things and tales on a map, search, user profiles, email and Twitter notifications. An interface for group spaces and a public API are currently under development. We offer downloadable bespoke mobile clients that can read Tales Of Things QR Codes and that provide additional functions such as adding of new tales when a barcode has been scanned for the iPhone and Android platform. Further custom Bluetooth RFID Readers have been developed that read Tales of Things registered RFID tags and that can communicate to other devices via Bluetooth.

Tales of Things and RememberMe both offer a unique social and storytelling focus for the Internet of Things. This is in stark contrast to the current deployment of tagging technology that focuses upon providing consumers with logistical data about products and artefacts. And judging from the affect upon sales it may well indicate that consumers are interested the provenance of an artefact, and not (as one might think) be put off when they find out where it has been, who has worn it and what it meant to them.

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