Tagging is Connecting: Shared Object Memories as Channels for Sociocultural Cohesion

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Kerstin Leder, Angelina Karpovich, Maria Burke, Chris Speed, Andrew Hudson-Smith, Simone O'Callaghan, Morna Simpson, Ralph Barthel, Ben Blundell, Martin De Jode, Clare Lee, Arthi Manohar, Duncan Shingleton, Jane Macdonald

Connections

In *Small Pieces Loosely Joined*, David Weinberger identifies some of the obvious changes which the Web has brought to human relations. Social connections, he argues, used to be exclusively defined and constrained by the physics and physicality of the "real" world, or by geographical and material facts:

> it's … true that we generally have to travel longer to get to places that are farther away; that to be heard at the back of the theater, you have to speak louder; that when a couple moves apart, their relationship changes; that if I give you something, I no longer have it. (xi)

The Web, however, is a place (or many places) where the boundaries of space, time, and presence are being reworked. Further, since we built this virtual world ourselves and are constantly involved in its evolution, the Web can tell us much about who we are and how we relate to others. In Weinberger's view, it demonstrates that "we are creatures who care about ourselves and the world we share with others", and that "we live within a context of meaning" beyond what we had previously cared to imagine (xi-xii). Before the establishment of computer-mediated communication (CMC), we already had multiple means of connecting people commonly separated by space (Gitelman and Pingree). Yet the Web has allowed us to see each other whilst separated by great distances, to share stories, images and other media online, to co-construct or "produse" (Bruns) content and, importantly, to do so within groups, rather than merely between individuals (Weinberger 108).

This optimistic evaluation of the Web and social relations is a response to some of the more cautious public voices that have accompanied recent technological developments. In the 1990s, Jan van Dijk raised concerns about what he anticipated as wide-reaching social consequences in the new "age of networks" (2). The network society, as van Dijk described it, was defined by new interconnections (chiefly via the World Wide Web), increased media convergence and narrowcasting, a spread of both social and media networks and the decline of traditional communities and forms of communication. Modern-day communities now consisted both of "organic" (physical) and "virtual" communities, with mediated communication seemingly beginning to replace, or at least supplement, face-to-face interaction (24). Recently, we have found ourselves on the verge of even more "interconnectedness" as the future seems determined by ubiquitous computing (ubicomp) and a new technological and cultural development known as the "Internet of Things" (Greenfield). Ubicomp refers to the integration of information technology into everyday objects and processes, to such an extent that the end-users are often unaware of the technology. According to Greenfield, ubicomp has significant potential to alter not only our relationship with technology, but the very fabric of our existence:

> A mobile phone … can be switched off or left at home. A computer … can be shut down, unplugged, walked away from. But the technology we're discussing here–ambient, ubiquitous, capable of insinuating itself

> into all the apertures everyday life affords it–will form our environment in a way neither of those technologies can. (6)

Greenfield's ideas are neither hypothesis, nor hyperbole. Ubicomp is already a reality. Dodson notes,

> Ubicomp isn't just part of our ... future. Its devices and services are already here. Think of the use of prepaid smart cards for use of public transport or the tags displayed in our cars to help regulate congestion charge pricing or the way in which corporations track and move goods around the world. (7)

The Internet of Things advances the ubicomp notion of objects embedded with the capacity to receive and transmit data and anticipates a move towards a society in which every device is "on" and in some way connected to the Internet; in other words, objects become networked. Information contained within and transmitted among networked objects becomes a "digital overlay" (Valhouli 2) over the physical world. Valhouli explains that objects, as well as geographical sites,

> become part of the Internet of Things in two ways. Information may become associated with a specific location using GPS coordinates or a street address. Alternatively, embedding sensors and transmitters into objects enables them to be addressed by Internet protocols, and to sense and react to their environments, as well as communicate with users or with other objects. (2)

The Internet of Things is not a theoretical paradigm. It is a framework for describing contemporary technological processes, in which communication moves beyond the established realm of human interaction, to enable a whole range of potential communications: "person-to-device (e.g. scheduling, remote control, or status update), device-to-device, or device-to-grid" (Valhouli 2).

Are these newer forms of communication in any sense meaningful? Currently, ubicomp's applications are largely functional, used in transport, security, and stock control. Yet, the possibilities afforded by the technology can be employed to enhance "connectedness" and "togetherness" in the broadest social sense. Most forms of technology have at least some social impact; this is particularly true of communication technology. How can that impact be made explicit?

Here, we discuss one such potential application of ubicomp with reference to a new UK research project: TOTeM–Tales of Things and Electronic Memory. TOTeM aims to draw on personal narratives, digital media, and tagging to create an "Internet" of people, things, and object memories via Web 2.0 and mobile technologies.

Communicating through Objects

The TOTeM project, began in August 2009 and funded by Research Councils UK's Digital Economy Programme, is concerned with eliciting the memory and value of "old" artefacts, which are generally excluded from the discourse of the Internet of Things, which focuses on new and future objects produced with embedded sensors and transmitters. We focus instead on existing artefacts that hold significant personal resonance, not because they are particularly expensive or useful, but because they contain or "evoke" (Turkle) memories of people, places, times, events, or ideas. Objects across a mantelpiece can become conduits

between events that happened in the past and people who will occupy the future (Miller 30).

TOTeM will draw on user-generated content and innovative tagging technology to study the personal relationships between people and objects, and between people *through* objects. Our hypothesis is that the stories that are connected to particular objects can become binding ties between individuals, as they provide insights into personal histories and values that are usually not shared, not because they are somehow too personal or uninteresting, but because there is currently little systematic context for sharing them. Even in families, where objects routinely pass down through generations, the stories associated with these objects are generally either reduced to a vague anecdote or lost entirely. Beyond families, there are some objects whose stories are deemed culturally-significant: monuments, the possessions of historical figures, religious artefacts, and archaeological finds. The current value system which defines an object's cultural significance appears to replicate Bourdieu's assessment of the hierarchies which define aesthetic concepts such as taste. In both cases, the popular, everyday, or otherwise mundane is deemed to possess less cultural capital than that which is less accessible or otherwise associated with the social elites. As a result, objects whose histories are well-known are mostly found in museums, untouchable and unused, whereas objects which are within reach, all around us, tend to travel from owner to owner without anyone considering what histories they might contain.

TOTeM's aim is to provide both a context and a mechanism for enabling individuals and community groups to share object-related stories and memories through digital media, via a custom-built platform of "tales of things". Participants will be able to use real-life objects as conduits for memory, by producing "tales" about the object's personal significance, told through digital video, photographs, audio, or a mixture of media. These tales will be hosted on the TOTeM project's website. Through specifically-developed TOTeM technology, each object tale will generate a unique physical tag, initially in the form of RFID (Radio Frequency Identification) and QR (Quick Response) codes. TOTeM participants will be able to attach these tags/codes to their objects. When scanned with a mobile phone equipped with free TOTeM software or an RFID tag reader, each tag will access the individual object's tale online, playing the media files telling that object's story on the mobile phone or computer. The object's user-created tale will be persistently accessible via both the Internet and 3G (third generation) mobile phones. The market share of 3G and 4G mobile networks is expanding, with some analysts predicting that they will account for 30% of the global mobile phone market by 2014 (Kawamoto). As the market for mobile phones with fast data transfer rates keeps growing, TOTeM will become accessible to an ever-growing number of mobile, as well as Internet, users.

The TOTeM platform will serve two primary functions. It will become an archive for object memories and thus grow to become an "archaeology for the future". We hope that future generations will be able to return to this repository and learn about the things that are meaningful to groups and individuals right now. The platform will also serve as an arena for contemporary communication. As the project develops, object memories will be directly accessible through tagged artefacts, as well as through browsing and keyword searches on the project website. Participants will be able to communicate via the TOTeM platform. On a practical level, the platform can bring together people who already share an interest in certain objects, times, or places (e.g. collectors, amateur historians, genealogists, as well as academics). In addition, we hope that the novelty of TOTeM's approach to objects may encourage some of those individuals for whom non-participation in the digital world is not a question of access but one of apathy and perceived irrelevance (Ofcom 3).

Tales of Things: Pilots

Since the beginning of this research project, we have begun to construct the TOTeM platform and develop the associated tagging technology. While the TOTeM platform is being built, we have also used this time to conduct a pilot "tale-telling" phase, with the aim of exploring how people might choose to communicate object stories and how this might make

them feel. In this initial phase, we focus on eliciting and constructing object tales, without the use of the TOTeM platform or the tagging technology, which will be tested in a future trial.

Following Thomson and Holland's autoethnographic approach, in the first instance, the TOTeM team and advisors shared their own tales with each other (some of these can be viewed on the TOTeM Website). Each of us chose an object that was personally significant to us, digitally recorded our object memories, and uploaded videos to a YouTube channel for discussion amongst the group. Team members in Edinburgh subsequently involved a group of undergraduate students in the pilot. Here, we offer some initial reflections on what we have learned from recording and sharing these early TOTeM tales.

The objects the TOTeM team and advisors chose independently from each other included a birth tag, a box of slides, a tile, a block of surf wax, a sweet jar from Japan, a mobile phone, a concert ticket, a wrist band, a cricket bat, a watch, an iPhone, a piece of the Berlin Wall, an antique pocket sundial, and a daughter's childhood toy.

The sheer variety of the objects we selected as being personally significant was intriguing, as were the varying reasons for choosing the objects. Even there was some overlap in object choice, for instance between the mobile and the iPhone, the two items (one (relatively) old, one new) told conspicuously different stories. The mobile held the memory of a lost friend via an old text message; the iPhone was valued not only for its practical uses, but because it symbolised the incarnation of two childhood sci-fi fantasies: a James Bond-inspired tracking device (GPS) and the "Hitchhiker's Guide to the Galaxy". While the memories and stories linked to these objects were in many ways idiosyncratic, some patterns have emerged even at this early stage. Stories broadly differed in terms of whether they related to an individual's personal experience (e.g. memorable moments or times in one's life) or to their connection with other people. They could also relate to the memory of particular events, from football matches, concerts and festivals on a relatively local basis, to globally significant milestones, such as the fall of the Berlin Wall.

In many cases, objects had been kept as tokens and reminders of particularly "colourful" and happy times. One student presented a wooden stick which he had picked up from a beach on his first parent-free "lads' holiday". Engraved on the stick were the names of the friends who had accompanied him on this memorable trip. Objects could also mark the beginning or end of a personal life stretch: for one student, his Dub Child vinyl record symbolised the moment he discovered and began to understand experimental music; it also constituted a reminder of the influence his brother had had on his musical taste.

At other times, objects were significant because they served as mementos for people who had been "lost" in one way or another, either because they had moved to different places, or because they had gone missing or passed away. With some, there was a sense that the very nature of the object enabled the act of holding on to a memory in a particular way. The aforementioned mobile phone, though usually out of use, was actively recharged for the purposes of remembering. Similarly, an unused wind-up watch was kept going to simultaneously keep alive the memory of its former owner.

It is commonly understood that the sharing of insights into one's personal life provides one way of building and maintaining social relationships (Greene et al.). Self-disclosure, as it is known in psychological terms, carries some negative connotations, such as making oneself vulnerable to the judgement of others or giving away "too much too soon". Often its achievement is dependent on timing and context. We were surprised by the extent to which some of us chose to disclose quite sensitive information with full knowledge of eventually making these stories public online. At the same time, as both researchers and, in a sense, as an audience, we found it a humbling experience to be allowed into people's and objects' meaningful pasts and presents.

It is obvious that the invitation to talk about meaningful objects also results in stories about

things and people we deeply care about. We have yet to see what shape the TOTeM platform will take as more people share their stories and learn about those of others. We don't know whether it will be taken up as a fully-fledged communication platform or merely as an archive for object memories, whether people will continue to share what seem like deep insights into personal life stories, or if they choose to make more subversive (no less meaningful) contributions. Likewise, it is yet to be seen how the linking of objects with personal stories through tagging could impact people's relationships with both the objects and the stories they contain.

To us, this initial trial phase, while small in scale, has re-emphasised the potential of sharing object memories in the emerging network of symbolic meaning (Weinberger's "context of meaning"). Seemingly everyday objects did turn out to contain stories behind them, personal stories which people were willing to share. Returning to Weinberger's quote with which we began this article, TOTeM will enable the traces of material experiences and relationships to become persistently accessible: giving something away would no longer mean entirely not having it, as the narrative of the object's significance would persist, and can be added to by future participants. Indeed, TOTeM would enable participants to "give away" more than just the object, while retaining access to the tale which would augment the object.

Greenfield ends his discussion of the potential of ubicomp by listing multiple experiences which he does not believe would benefit from any technological augmentation:

> Going for a long run in the warm gentle rain, gratefully and carefully easing my body into the swelter of a hot springs, listening to the first snowfall of winter, savouring the texture of my wife's lips … these are all things that require little or no added value by virtue of being networked, relational, correlated to my other activities. They're already perfect, just as they stand. (258)

It is a resonant set of images, and most people would be able to produce a similar list of meaningful personal experiences. Yet, as we have already suggested, technology and meaning need not be mutually exclusive. Indeed, as the discussion of TOTeM begins to illustrate, the use of new technologies in new contexts can augment the commercial applications of ubiquoutous computing with meaningful human communication.

At the time of writing, the TOTeM platform is in the later stages of development. We envisage the website taking shape and its content becoming more and more meaningful over time. However, some initial object memories should be available from April 2010, and the TOTeM platform and mobile tagging applications will be fully operational in the summer of 2010. Our progress can be followed on www.youtotem.com and http://twitter.com/talesofthings. TOTeM looks forward to receiving "tales of things" from across the world.

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