

# Personal and Shared Memories in the Home

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## 1. Introduction

In their study of family homes, Csikszentmihalyi and Rochberg-Halton take a critical position on technological homes, and underline that “meaning, not possessions, is the ultimate goal of [people] lives, and the fruits of technology [...] cannot alone provide this. People still need to know that their actions matter, that their existence forms a pattern with that of others, that they are remembered and loved, and that their individual self is part of some greater design beyond the fleeting span of mortal years.” (Csikszentmihalyi & Rochberg-Halton, 1981, pg.145).

It should be the study of the environment where people live in and the meaning they attach to it that leads the design and development of new technology for the home (Taylor et al. 2006). However, this ecological approach has been rarely applied and prototypes of intelligent/smart homes have been developed just because it was technologically feasible. Technology in the home is a valid support for the need of aged or ill people; however when put on test it failed to appeal a wider population mainly because the benefits were not perceived as worth the complexity of use (Taylor et al. 2006).

In a similar way, research on personal memories (e.g. Microsoft MyLifeBits<sup>1</sup>) has been so far driven by the opportunities technology offers and prototypes have been implemented without any real user goals and needs in mind. Autobiographical memories are interweaved with the self as well as with the others and the social and some understanding of the dynamics is needed to better direct the design.

The family home is a physical space where individual and collective memories cumulate. Here memory (and its related terms) is not intended in its factual dimension, e.g. to remember parent-teacher evening, but as an affective token of experience, e.g. the child’s performance at the school Christmas Concert. The home is a landscape of memories and contributes to self-identity and relation building: mementos in the home are precious to whom inhabit that space.

As more and more aspects of our life change because of digital devices, so is the capturing of our past. Digital photography is an obvious example; other less straightforward are happy birthday animated emails, voice messages and digital compositions. While birthday cards can easily find their place on the mantelpiece and the children last collage on the fridge, digital mementos are locked away into a digital device or a digital support (CD, DVD). An ethnographic study has been set up to investigate the home as family memory landscape, and contrasting it with what people value as digital memento and where they keep it. The study will be carried out in May and preliminary results will be presented at the workshop. This position paper outlines the motivations and the structure of the study.

## 2. Related Work

This research lays at the crossing between autobiographical memories, personal and family sharing, and technology. Much of the research so far has focused on each of the above separately and from a specific point of view.

Research on memory has been carried out mainly in psychology, with recent work challenging the more traditional view of memory as a knowledge base (Conway & Plydell-Pearce 2000) and instead proposing a core role for recollection and social dynamics (Brown 2005, Leichtman & Wang 2005, Fivush & Nelson 2004, Wang & Brockmeier 2002).

Sociological studies on personal and family sharing had focused on the role of objects (Csikszentmihalyi & Rochberg-Halton 1981) or photographs (Chalfen 1987). When technology is included the focus is on family communication (Dalsgaard et al. 2006, Hutchinson et al. 2003, Vetere et al. 2006) or photo sharing (Frohlich et al. 2002, Shen et al. 2003, Crabtree et al 2004).

Only a few work investigated the role of memories in people’s life and the implication for technology design. The Memory Box (Frohlich & Murphy 2000) used a jewellery box metaphor to associate a recorded audio narration to a souvenir. They found it appealed more to women and children: Children

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<sup>1</sup> <http://research.microsoft.com/barc/mediapresence/MyLifeBits.aspx>

were using it as a personal journal, while adults perceived the value of recording narration to objects only if they were given/received as present but not for personal use. The recording of narration was also considered realistic if the number of objects was small. The need to have a self-contained and simple technology for recording and play-back was the most prominent user requirement.

The Living Memory Box project (Stevens et al. 2003) investigated the collection, archiving and annotation of family memories. An ethnographic study investigated “the who, what, where, when and why of [parents] saving memories of their child’s life” (Stevens et al. 2003). Parents fulfil the duty of collecting child’s mementos (to a certain extent) but fail in recording the stories that are related to those objects. The envisaged system would allow users to place a physical object in the Living Memory Box, record its appearance, an audio narration and some metadata that would support a later retrieval (Stevens et al. 2003). These ideas were tested with scrap-bookers<sup>2</sup>. Results show that any system intended for this personal use has to be distinctively different from a PC, has to offer a natural interaction (e.g. touch and voice) and provide an engaging experience (Stevens et al. 2003).

The tight relation between souvenir, personal memory, experience, and recollection was investigated by Elise van der Hoven (2004). In a focus group participants discussed objects they brought to the meeting to identify the core characteristics of a souvenir: it emerged that souvenirs carry meaning for the owner but this is obscure to others and the revelation of the story behind would change depending on the relation between the owner and the audience (van der Hoven 2004). A questionnaire on the perceived value of souvenirs and their function in the person’s life complemented the study: Souvenirs were a memory of a personal experience (holiday, honeymoon) or a specific person (heirloom, gift), and were “used” (watched, talked about) (van der Hoven 2004). The result of both studies was used to design a system that used RFID-tagged physical objects to retrieve a set of images previously associated with the object. A hand-held device (a tablet PC) supported the user in watching the images, share some selected on a TV set, managing albums, send selected ones via email or print.

### 3. The Home as Memory Landscape

As the space where people cultivate their identity and mutual affection, the home is a rich and varied composition of personal and family objects, the most valued being related to memories<sup>3</sup> (Csikszentmihalyi & Rochberg-Halton 1981). Mementos<sup>4</sup> are often on display in family (e.g. kitchen) and social spaces (e.g. sitting room) despite the fact that their true meaning is often unknown and unperceived by visitors, e.g. a piece of furniture that has been in the family for generations, a sculpture made by the child. Individuals exhibit a strong connection with personal mementos: they express a feel of loss should the objects suddenly disappear or formulate the desire to pass them over to younger generations (Csikszentmihalyi & Rochberg-Halton 1981).

The spatial and physical representation of an individual story has been called *autotopography* (Gonzalez 1995): “just as a written autobiography is a series of narrated events, fantasies, and identification, so too an autotopography forms a spatial representation of important relations, emotional ties, and past events” (Gonzalez 1995). An autotopography can exist in many forms: “a careful, visual arrangement of mementos and heirlooms, on the one hand, and a jumbled, hidden assembly of dusty and unkempt objects, on the other, can *both* constitute a material memory landscape” (Gonzalez 1995). The recollection of one’s life makes use of both physical and narrative aspects: mementos are used to mark events while the narrative plot organize and relate those scattered points. Object and narration create a powerful combination. In an experiment conducted by Frohlich and Murphy (2000) participants reported emotional comments when listening again to the voice of close family members telling the story of objects or simply sending greetings.

Mementos in the home often represent shared experiences (family holidays), bonds and relationship (among the family members and others, e.g. grandparents), a sense of belonging (heirlooms, community): they compose the family memory landscape. This family autotopography is not only a representation of the past, but a snapshot of the current family life (Taylor et al. 2006): many objects scattered around the house have a temporal, transient meaning (e.g. low-quality photo print stuck on the fridge), compared to mementos intended for long-lasting display (e.g. framed pictures). However

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<sup>2</sup> a scrapbook is a decorated photo album that often contains memorabilia – train tickets, letters - as well as stories of the facts the images refer to.

<sup>3</sup> Csikszentmihalyi and Rochberg-Halton found a difference between children and teenagers on one side and parents and grandparents on the other, with the first group favouring active, self-defining objects while the second singling out contemplative and past-related objects. They also found a shift from a self-centric/today view of the home towards a relation-centred/past-and-future perspective (Csikszentmihalyi & Rochberg-Halton, 1981).

<sup>4</sup> A memento is an object given or kept as a reminder of or in memory of somebody or something.

temporal and ephemeral, physical objects are externalizations that contribute to the meaning and values of the family, the cultivation of which is parents' responsibility.

Parent-child relation, although sharing aspects with strong-tie relationship like partners in life, has the peculiarity of being unbalanced with parents holding responsibility, providing security and care (Dalsgaard et al 2006). Similarly parents feel the duty to save and preserve mementos of their children's life while the children themselves are focused on the self only (Stevens et al. 2003). A variety of objects is kept: artefacts and artworks, cloths, photographs, videos are just examples; The intention is that of passing the collection to the child when adult, likely when they have children themselves. Preserving physical tokens of children's memories requires an effort in terms of selection but does not require becoming a curator, just to be a keeper. In 30 years time the collage might have lost the original colour, but its essence will be preserved. The same cannot be said of digital mementos.

#### **4. Physical and Digital Mementos**

Although children's paintings and junk-models still linger around family homes, the amount of digital belonging increases. A family archive includes the outcome of digital recording (e.g. images and video clips from digital camera and phone), the flow of digital communication (e.g. emails, SMS, voice messages), and the self-created digital artefacts (e.g. school assignment, blog and Website, manipulated image, game character) (Marshall & Brun-Cotton 2006, Beagrie 2005).

Two main issues arise as a consequence of this shift: the need for an active archiving and the need for an easy externalization.

##### *4.1. Preservation*

Technology is in itself transient: today formats and applications may disappear in a few years time. Home video technology is a good example: in the early days of home video, in the 70s, the format was Super8, then came VHS and now its DV/MPEG. Even the original Super8 projector is not a guarantee of future preservation (what if it breaks?) and the progressive migration onto the new format is needed. Digital material is not done in the perspective of life-long preservation and use but of instant consumption. The digital medium is ephemeral and volatile, subject to breaks and sudden loss.

So while preserving physical mementos is just a matter of cumulating and keeping, the preservation of digital belongings requires the owner to become a digital curator. While this has been acknowledged by archivists and professionals as a need to preserve today electronic culture (Beagrie 2005), it seems highly unrealistic when considered from the consumer's point of view (Marshall & Brun-Cotton 2006) who will just suffer the loss of those memories. Online services like the BT Digital Vault<sup>5</sup> that offer storing and back-up of digital belonging is the first step, but culling and migration is still user's responsibility. Which support has to be provided for selecting, describing, organizing and retrieving personal memories is a matter of research. Likely people have different attitudes towards their mementos: some may keep everything (collectors), others selectively keep only what they consider important (selectors), others would not only keep but spend time and energy in organizing their belongings (archivists). To be effective a system that support the management of digital memories should cater for all three categories, not just the last one.

##### *4.2. Externalization*

Cards, artefacts, photos easily find a collocation in the physical space. The location can be temporal or permanent but their exhibition afford attention and contribute to the creation of family bonding and identity. Conversely from the corresponding physical ones, digital mementos stay hidden inside a device, the only exception being digital photographs that can be (slide)shown on a digital frame. The challenge here is not to develop new specialized technology, but to investigate the role and meaning of physical mementos and find inspirations for a design that fits the family and the home but at the same time take advantage of the digital aspects, e.g. replication, multimediality, ubiquity.

#### **5. A Study of Family Autotopography**

An ethnographic study has been set up to investigate the memory landscape in the home and understand what people consider digital mementos. Four different activities compose the study:

- A tour of the house lead by one or both parents; he/she has to pick up and describe three mementos in each room. We hope to have a look at social (e.g. sitting room), family (e.g. kitchen), and individual (e.g. bedroom, study) spaces. Questions will be asked during the tour to assure the multiple aspects of family memories are discussed.

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<sup>5</sup> <http://www.btdigitalvault.bt.com/>

- An interview on individual mementos to identify what each individual consider as precious memory (indeed some personal mementos might not be exposed in any space).
- A second interview addresses the digital mementos: which digital devices are used, which digital objects are kept and why.
- Finally the participant is asked to sketch their autobiography and populate it with mementos of their life. The self-generated life-map will be then compared with autobiographical memory models (e.g. Conway & Pleydell-Pearce 2000).

The different parts of the study should provide empirical evidence for the critical points previously discussed. In particular from the rooms tour we aim at gaining an understanding of the type and role of mementos in the building of the family identity; the personal memory interview is intended to balance the family view and see to which degree a space that is collective and shared determines the objects on display; the discussion on owned digital devices and their content is intended to enlighten the type of digital objects people consider important; and finally the mapping of oneself life aims at collecting ideas on a possible interaction design for a personal digital memory organizer.

The final format of the study is currently under pilot test and the body of research will occur in May; preliminary results will be available for the workshop.

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