Communicating Commemoration

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ABSTRACT
Traditions encircle the grieving process. These can support mourners in difficult times, for example by prescribing how to behave appropriately and by expressing a sense of history. On the other hand, this traditional approach can prevent the innovation of this field, thereby missing out on potential support when in sorrow over a lost one. This is what we tried to explore with the work described in this paper. We supported the grieving process by creating two design solutions for mourners. Both concepts focus on communicating commemoration between mourners: the Tilting Picture concept for people that are colocated, and the Mourning Stones concept for people that are not colocated.

Categories and Subject Descriptors
H.4.3 [**Information Systems Applications**] Communications Applications and H.5.2 [**Information interfaces and presentation (e.g., HCI)**] User Interfaces

General Terms
Design, Human Factors.

Keywords
Interaction design, emotions, mourning, well-being, calm technology, awareness systems.

1. INTRODUCTION
Mourning and the rituals surrounding it have received considerable attention from scholars from various disciplines, such as religious studies, anthropology, sociology, history and psychology. However these are usually studied in a descriptive or explanatory way, dealing with past or current practices. Mourning has received little attention as an opportunity space for innovation, in particular in the field of interaction design. This is unfortunate because the needs of the people involved are apparent, and the group of people facing mourning at some point in their lives is enormous.

In 1995 Edwin Bos [1] tried to open up the debate how mourning people could be supported by state of the art technology. He provocatively proposed to employ speech and language technology to create an interactive talking photo of the deceased. His basic argument was that by collecting typical remarks and sayings of a person during life, there is a technically feasible way to 'extend' the life of that person until after his death. At least the survivors could be supported with a lively ever-changing representation of that person. The idea may come across as somewhat absurd, but later proposals for support for mourning [2,3] also focused on the idea of collecting souvenirs during life that can later be used for reminiscing about the deceased.

We do not doubt that reminiscing is of importance to mourners but it is questionable whether the 'extended life' angle is the right one. One of the psychological difficulties in mourning is reaching 'closure': coming to terms with the fact that the deceased is no longer alive. Existing rituals surrounding mourning usually try to support this need. We take the stance that in designing for mourning we should focus on the *mourners* rather than on the *deceased* and what we have to remember him by. We explored to what extend mourning can be supported as a social process that involves both reminiscing as well as reaching closure. Therefore we focused on supporting commemoration practices, or individual needs with respect to the remembrance of the deceased.

In this paper we will describe and critically review two student design projects addressing potential support for people in mourning. To put our students on track we asked them to approach the design challenge from three perspectives: a social critical perspective, an emphatic perspective and a technological perspective. We must note that this paper focuses on the concepts and not on the user research or the technological implementation, students did create proofs of principles and demonstrated the possibility to implement the most vital parts of the required technologies. In section 2 we will shortly explain the three perspectives. Next we will give a short description of the students' design process in section 3 and the resulting concepts in section 4. In section 5 we will present our conclusions and recommendations.

2. THREE PERSPECTIVES

2.1 Social critical
Rituals surrounding mourning can be described as culturally and historically evolved practices that carry prescriptions of actions, which are rich in symbolism and give a feeling of belonging to a community. Religious rituals, for example, are often characterised by strong prescriptions in actions, artifacts, and time (think of the seven catholic sacraments, specified mourning periods and so on). In the process of mourning such prescriptions have two advantages. First, taking part in an organised mourning process releases you from the task of organising such a process yourself, with all the difficulties involved. Second, these prescribed actions and their symbolism are clear to the communities that practice them, such as neighbours, relatives and villages, taking away a communicative burden for the grieving people. In designing for mourning these rituals can be both constraining, because a new solution needs to blend in, and inspirational, because the culturally-evolved ritual is a manifestation of peoples' needs and it can serve as an inspiration for the use of symbols by mourners.

All the while society is, and the rituals surrounding grief are, changing. For example, following recent secularization and individualization in western society, belonging to a religious

community and taking part in their rituals has decreased in popularity. Instead there are new forms emerging. For example, in the Netherlands, massive mourning parades catalyze public grief and indignation about victims of 'senseless violence'. Likewise, a relatively new phenomenon is that people who stay behind nurture self-created memorials at places where (car) accidents have happened. These new manifestations of grief can be seen as rituals underlining the individuality of the deceased and his or her relation to the community. Where investigating religious rituals can provide designers with 'universals' in the process of grieving, investigating new forms of mourning provides them with a sense of opportunities and provide fresh cultural constraints for innovative solutions.

2.2 Emphatic (user) perspective

In a project addressing mourning needs there are two types of users that need to be taken into account explicitly. The primary users are people in a mourning situation, who can have various relations to the deceased. Secondary users are acquaintances of the primary users at varying emotional distance to the primary user. Solutions have to support communication between those stakeholders, albeit in a very different situation than everyday life. Therefore a standard, formalized, user-centered design approach is not sufficient. Rather, user research needs to be organized in such a way that it enables developing a rich, intricate and detailed understanding of the emotional situation of the people in the target group. In setting up a user-centered design process for mourning it is essential to pick activities that enable the designer to develop empathy for the people this situation. This means choosing for personal stories over statistics, interviews and observations over questionnaires and to find ways to match the information gathered to their personal experiences of loss.

2.3 Technological perspective

From a technological point of view, the problem to communicate your state of mind, and supporting others to empathize with your personal situation and needs, is an information sharing problem, which means a creation of an information sharing architecture. At first sight this may seem a cold and distant approach to the problem of supporting mourning. But at the same time, some of the dilemmas arising from the other perspectives can be solved through (intelligent) technology. Modern communication media such as telephones, e-mail, blogs and virtual communities allow for communication between people that are not co-located in time and space. The disadvantage of these existing solutions is that they are designed for explicit communication, while the situation of mourning might require more subtle ways of sharing information. Students were explicitly advised to look into emerging technological fields, such as awareness systems (e.g. [4]) that lower the threshold for sharing mundane information, or to the application of context-aware technology that may support situation-depending communication.

3. DESIGN PROCESS

Two groups of second-year bachelor students from our department of Industrial Design were challenged to design an interactive product or service that supports people in mourning to communicate their state of mind, their needs to others, and in turn, supports these others to respond to these needs if they wish. The students were asked to come up with an integrated response to the three perspectives we specified, while following a basic design research process as described in [5]. The project started with a pressure cooker mini project in which students ran the whole design cycle in two days. Afterwards students went through a 12-week design cycle divided in four work packages. As a warm-up the students visited a mourning museum and an undertaking. In the first work package, students investigated their own personal rituals by creating a movie about them. In the second work package students analysed rituals surrounding grief, social cultural trends in the practices of mourning, user needs and technological trends, in line with the three perspectives. Furthermore they generated ideas of potential design solutions. In work package three students combined ideas into concepts, selected concepts with concept appraisal methods and consulted experts to obtain feedback about the selected concepts. In the fourth and last work package students developed a prototype, a proof of principle, a separate visual model and they validated their design proposal.

4. COMMEMORATION CONCEPTS

4.1 Tilting Frame

This concept (see Figure 1 for a scenario) consists of two or more photo frames within a home. When one person in the home talks to one of the photo frames all frames in the house will tilt in a subtle manner. Once the person walks away or stops talking, the frame stops tilting and stays in its position. The tilted frames may serve as a subtle hint to others that someone has been expressing grief and they can turn the frames to the normal upright position by hand.

Figure 1: A scenario of a working Tilting Frame in action.

In many cases this communication pattern may be sufficient (returning the frame may be interpreted as 'I acknowledge your grief') in other cases it may serve as an instigation to start or continue the communication about their personal griefs or the person in the photoframe.

4.1.1 Discussion from a social critical perspective

The main assumption behind the tilting photo frame is that talking to a picture of the deceased is an existing ritual that can be

supported by the subtle changes proposed. The fact that photos play an important part in commemoration was confirmed by literature [3] and the fact that people tend to talk to these photos was confirmed by mourning experts consulted in the project. Although it is imaginable that the subtle changes in the picture change family communication about the deceased positively, this still needs to be validated with a proper user evaluation. The concept is relatively neutral with respect to cultural differences or changes in mourning practice. Therefore it may blend in with diverse practices easily.

4.1.2 Discussion from an emphatic perspective

A main finding in the user research was that a communication problem of mourners is that they had difficulties expressing what they really wanted from the other rather than showing their general feelings. The proposed solution is to create instigating events that may serve as a starting point for communication. This might not help people to directly express what they want, but it is more concrete than the general impression you get from reading the non-verbal communication of a grieving person. Still it is an open question whether the language created by the moving frames, is rich and open enough to create the right opportunities for communication about the deceased.

4.1.3 Discussion from a technological perspective

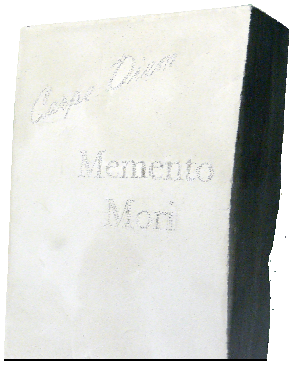
Students in this team have chosen for an, anonymous, one-to-few information architecture, supporting highly ambiguous messages of a single kind. The proposed solution embodies the principles of calm technology [6] and ambient information displays [7]. It seems essential to the success of the concept that the solution is truly 'calm' (it should not be noticeable for users that there is 'technology' behind it). Also the solution is context aware, in the sense that it extracts information from existing rituals (talking to a photo frame) and uses this information appropriately and subtly.

4.1.4 General discussion

The Tilting Frame has some resemblance to the frame that goes with the Key Table [8], the students were not aware of this publication and came up with the concept themselves. While the tilting frame concept can be articulated in the three proposed perspectives, and seems to form an integrated response we still feel that this concept may not be a satisfying solution. The main problem with the tilting frame seems to be the limited richness and openness. 'Any' conversation with the picture is translated with a 'tilt'. This may leave too much of the communicative burden on the family members using the frame.

4.2 Mourning Stones

With the second concept people in mourning can communicate with each other directly and through the grave stone by using mourning stones (see Figure 2). These are normal stones with heating elements and touch sensors in them. If one person caresses a stone, indicating he is taking his time to think about the deceased, a text lights up on the grave stone (at a grave yard or at a home altar) and other mourning stones heat up to signal this event. In response other stone owners can caress their own mourning stone, making the initiating sender's stone heat up as in return. This allows for flexible implicit interaction patterns. The stone tokens can be chosen from a variety of natural stones. In principle the sender of the message remains anonymous, however a receiver can retrieve the senders name by sending an sms message to the stone. The lights in the grave stone also reach the mourners that do not possess a mourning stone. Only a limited group of people selected by the closest stay-behind can choose and use one of these mourning stones, usually that would be the closest circle around the deceased.



4.2.3 Discussion from a technological perspective

Students proposed an architecture of networked elements that supports a one-to-many communication of a single kind with a highly ambiguous meaning. This is similar to the first concept, although the content of the message is quite different. More than the other group this group tried to hide the (complex) technological architecture from the user. The choice for a natural material like stones emphasizes their stance: high tech but 'calm'.

5. CONCLUSIONS & RECOMMENDATIONS

Designing for mourning and commemoration is largely untouched by the interaction design community. Furthermore, we feel that previous work has focused too much on reminiscing the deceased and there is a need for work that focuses on the needs of mourners in a more complete or holistic way. Within this project students developed modern, but respectful design solutions to share emotions within mourning processes. In both projects, students focused on developing a platform for implicit communication between mourners. This implicit communication has value of its own. By knowing that others think of the deceased, people feel less alone with their grief and get comfort and support. Furthermore the concepts aim at creating instigating events that help to initiate further communication about grief. Although we consider the proposed solutions to be far from perfect, they do show there are ways to support mourning processes with interactive products.

We feel the social critical approach helped students to come up with respectful designs. Research about existing rituals turned out to lead to a particularly rich idea generation phase and was considered very inspirational by students. However it is hard for them to get to grips with the cultural assumptions they make when proposing a design solution. In future projects we would like to support them in this respect, because making these cultural assumptions explicit will be helpful in validating their design proposals.

The empathic perspective has been a struggle for students. They managed to create empathy with the user group in the beginning of their project, but struggled with the sensitivity of the user group. Therefore they relied on experts on the topic of mourning (grief counselors, elderly) rather than on potential end users themselves, which resulted in design for mourning instead of the aimed commemoration. This also meant that students have been insufficiently confronted with the consequences of their interaction design choices for users. In essence both groups struggled with the same issues. They wanted to create a platform for implicit communication, but got stuck in conflicting requirements. The struggle of the mourning stones group with anonymity is a good example. In principle their problem could have been resolved with a richer interaction language (allowing for more variation than the binary warmth on/ off decision). But to develop such a language extensive user testing is necessary. By stressing the sensitivities involved in testing with mourning people, students got scared away from this track.

From a technological perspective the proposed solutions are similar. Both are communication platforms that can be used to send highly ambiguous messages to a group of people (one-to many). The students have borrowed ideas from Weiser's calm technology [6] and the field of awareness systems. They managed to come up with solutions that blend in, by augmenting familiar objects with new functionality. By doing so they demonstrated successfully that designing for a delicate user group does not necessarily lead to horror scenarios. On the other hand, they only scratched the surface with regard to the potential we saw for innovations in the commemoration process, in particular in support for social groups with similar needs that are no longer co-located.

However, one of the important unresolved questions that still remains is how to involve users in the design process, while respecting their difficult and sensitive situations? A discussion point for the workshop could be: we know that a group of people wants to talk about their experiences in time of mourning; perhaps we could give these people an outlet and at the same time use this information as input for a design? In that way we could involve people that are experiencing exactly what you are designing for, right now. Because we found that when we contacted people who had been in mourning some time ago, they were not willing to remember their mourning experiences for our studies, which we understood and respected.

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