

# Connecting Mothers and Sons: A Design Using Routine Affective Rituals

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Beauty is in the details. Often small things carry an important emotional undertone that determines whether or how we enjoy an event or a product. In this article, we describe how small details of everyday routines were incorporated in the design of a hi-tech communication appliance.

As ID-StudioLab's entry to the

Microsoft Research Design Expo 2003, the student team "Mamasboys" wanted to design a communication appliance that would enhance the affective value of the communication between relatives living far apart. The students all had experienced such situations when they left their parents behind to pursue their university education.

Most communication devices we use nowadays are designed for focused, conscious use. Often the primary concern is functionality: telephones with voicemail, for instance, are designed around the process of sending and storing fragments of audio. However, people typically communicate in a richer context, where functional, emotional, and social relationships are interwoven. Products which do not take this into consideration in the design process, and which are purely functional, fail to fulfill our needs. Communication devices, in particular, need to reflect and support the emotional bonds between family members, rather than only transmit factual information. Such a device would have to be less imposing, but fully engaging and flexible enough to blend in with the everyday rituals of parent and child.

## Probing the Context

In the beginning, the team held group sessions with students and parents to explore the affective and experiential characteristics in their communications. The students voiced the need to communicate more on an equal footing, as

friends, as opposed to the one-way responsibility relation they had so far. They also experienced the regular and often awkward phone calls, made out of duty without either party really having anything to discuss, as a burden. Mothers, too, experienced problems with conveying subtle emotions through the mobile telephone. One father explained: "The thing I miss most is the moment when my sons came home from school, dropping their bags, and running out to play."

## The Concept

This last quote exemplifies the idea that led to the Gustbowl [1]: a communication device that builds on the routine moment of coming home. Many people perform a small ritual when entering their home, putting small items like phones, notes and keys in special places, sometimes using fruit bowls to keep a temporary collection. This use of the fruit bowl was used explicitly for Gustbowl: a non-obtrusive, aesthetically pleasing communication appliance created to enhance the ritual character of coming home.

The Gustbowl, shown in Figure 1, contains a motion sensor, a digital camera, an electric motor, and a semi-transparent display. Linked in pairs by a telephone or Internet connection, each Gustbowl repeats the movement of the other bowl (e.g., when items are thrown in.) When the wobbling stops, a picture appears dynamically, showing the content of the paired bowl. This picture fades out gradually, indicating the time since





Figure 1: Operation of the gustbowl: throwing in the keys causes a bowl to wobble. A picture is taken and sent to the other bowl, which wobbles in turn, and displays the picture.



Figure 2: Above: a sketchy prototype of the way the picture appears. Below: an aesthetic exploration of the form, and a set of pictures ("Gusts") made in use situations.



Figure 3: Experiential prototypes in operation.

the bowl was last touched. After a while it disappears without a trace. The Gustbowl enables users to send a vague or articulate message in a non-disruptive manner, thereby providing both parties with the pleasurable experience of staying in touch.

### Experiential Prototypes: Living with it

Throughout the design process, users were consulted and prototypes were built

on different levels of sophistication. This way the design team was able to easily and quickly test the aesthetics and enjoyment of the dynamic appearance of the picture in an early stage or time (see Figure 2).

The final concept was tested using experiential prototypes over several weeks. These tests showed that the moments of contact (one user noticing a wobble from the other user) could be scarce, but when they happened, people were pleased and enjoyed it. The importance of adaptability became apparent in the improvisations that users kept making. For instance, when one mother looked up old belongings of her son and showed them on the Gustbowl (see Figure 3; note: for reasons of technical feasibility bowl and display are separated in this prototype); the son reacted by collecting items on a trip to the zoo, to share his experience that same evening through the Gustbowl. Exchanges often triggered more extensive conversations, but people also enjoyed the freedom they gained through the disappearance of the images. Unlike a voice-mail service, messages disappear without a trace, relieving the receiver of the burden to answer.

### Conclusions

More and more, product designers understand that simple technological functionality cannot be taken as the guideline for design. We have lots of technological capability, but the challenge is to make products that fit users' needs. When dealing with subtle things, such as emotions, human relations, and enjoyment, the interaction between people should be enabled, and the product should be able to step back. For example a vase in itself may be nice to look at, but should step back in your attention when you put in the flowers that a loved one has brought. Technology need not be the constrainer of our lives. If designed appropriately, it can blend in well. Capturing an everyday routine in such an enabling technology can lead to adap-

tive usage and enjoyable experiences. The Gustbowl shows one way how.

### REFERENCES

1. Keller, A. I., Van der Hoog, W. & Stappers, P.J. (2004, January-March). Gust of Me: Reconnecting mother and son. *IEEE Pervasive Computing*, 3 (1), 22-28.

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