Designing technologies that encourage the sharing of positive emotions

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ABSTRACT

Following in the positive psychology tradition, this research provides insights into the design and development of technologies that aim to encourage the sharing of positive emotions.

1. INTRODUCTION

Within the HCI community, there is a growing awareness that technologies should be designed to appropriately address the complexity of human needs [5, 13, 17]. One of the principal needs [16] is social interaction [1, 12], but technologies do not always support this need very well: a controversial study by Kraut et al. [9] showed that using the Internet can cause small declines in social and psychological wellbeing. The example of the rise in cyber bullying [2] (which can manifest itself in the circulation of hurtful instant messages) illustrates that computer mediated communication is not always positive. Although negative effects of technologies are not immutable [10], taking the appropriate design steps to avoid these is a complex process. It requires a thorough understanding of the mechanisms through which the use of technologies influence sociability and psychological wellbeing. Methodologies from the fields of HCI and CSCW offer a valuable starting point for gaining this understanding. However, "traditional" HCI is predominantly focused on the negative side of the user experience, for example diagnosing and removing usability problems or user's frustrations [3]. Moreover, the lack of problems or user's negative feelings toward a system is *not* the same as the presence or encouragement of positive emotions.

One of the "new HCI" stresses is the importance of emotions [7]. While emotion and HCI is being increasingly investigated, examples of how designers and developers can provide social interactive experiences that *actively encourage and communicate predominantly positive emotions* are still scarce. Within the community as a whole, a re-focus is needed to increasingly shift research interests from the negative stressors to the positive motivators. New directions in the field should encompass how users can creatively adapt their interactive experiences to their needs for positive and social use. To understand this process, this research draws from the field of positive psychology [14], (which arose from the narrow focus on illness rather than wellness), and seeks to understand the role positive emotions (e.g. [6]) and the development of reliable and valid interventions (e.g. [11]) can play in HCI. Building on the foundations of social and positive psychology (e.g. [4, 15]), this research aims to increase understanding of positive social sharing. Various artifacts, termed *PosiPost* are being developed through an iterative design process, to offer exemplars that allow discussion and studies of the ways in which technologies can support the active expression and sharing of positive emotions.

2. DESIGN STUDIES

The first stage of the design process concerned two studies, involving paper-based questioning techniques and on-line social tools. The aim was to determine how best to engage people in the sharing of positive emotions. These studies led to the design and development of *PosiPost Me (Mobile edition)* that allows users to express and share positive thoughts with a mobile phone at *any time* and *any place*.
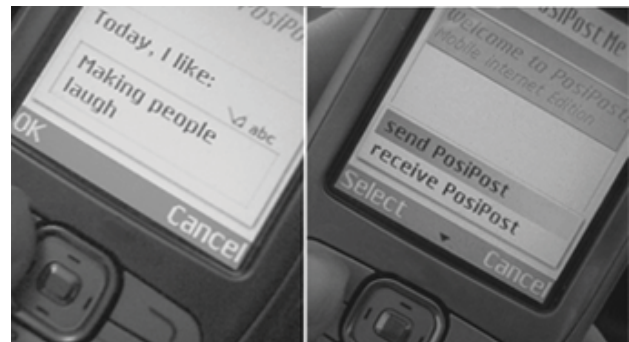

Figure 1. Creating and sending posipostings with the *PosiPost Me* application

These first studies showed the potential for a prefix-based elicitation of positive emotions. A chi-square test of the distributions of postings during the first study showed a significant ($\chi^2(5$, N = 78$) = 13.25$, *p.*= 0.021) variation in the distribution of messages, depending on the prefix used and similar results for the second study ($\chi^2(4$, N = 73$) = 68.16$, *p.* < 0.001). From the eight prefixes used, the most effective prefix for eliciting positive emotions was: *Today, I like*. It was then incorporated in the Mobile edition to encourage the expression and sharing of positive emotions. Data analysis of the postings showed that the deployment of this prefix particularly triggered *positive and situated* expressions that are related to what is happening at that particular moment in time [8].

The second stage of the design process involved studying real-world use of the *PosiPost Me* application and used participatory techniques to iterate the design. Similar to the results of the first study, the data analysis showed that during this phase, all of the 'posipostings' with the incorporated *Today, I like* prefix were categorized to be of a positive and non-offensive nature. This may be a promising indication that the design rationale for *PosiPost Me,* to encourage sharing of positive emotions, is

effective. However, larger studies with different users will need to be undertaken to further verify this claim.

One of the important discussion points that came out of the second stage of the study was the extent to which contextualizing expressions (i.e. adding a name or location) would be beneficial for users. This is currently under investigation.

The iterative design process is continuing and new versions of PosiPost, including *PosiPost Be* are in development. This *Bluetooth edition* will allow sharing of positive thoughts with people in close proximity to explore the social and potential positive effect of contextualizing posipostings where location is a key factor.

3. REFERENCES

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