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sleepyWhispers: Sharing Goodnights Within Distant Relationships

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ABSTRACT

There is a growing body of work in HCI on the design of communication technologies to help support lovers in long distance relationships. We build upon this work by presenting an exploratory study of a prototype device intended to allow distant lovers to share goodnight messages. Our work distinguishes itself by basing distance communication metaphors on elements of familiar, simple co-located behaviours. We argue that voice remains an under-utilised media when designing interactive technologies for long-distant couples. Through exploring the results of a 2-month case study we present some of the unique challenges that using voice entails.

Author Keywords

Communication Systems; Intimate Communication.

ACM Classification Keywords

H.4.3. Communications Applications: Miscellaneous

INTRODUCTION

There is a relatively rich history in HCI of communication systems designed to help support long distance relationships. Although much of this work focuses on domestic relationships (i.e. separated families) a body of work is starting to be formed around systems to support intimate couples.

As many of the acts involved in intimacy involve touch, consideration of haptics in the field of CMC technologies is an approach worth considering. Several researchers have developed haptic devices to somehow approximate the close physical contact that highly personal relationships often enjoy. Many of the proposed devices start from a completely abstract perspective (e.g. [2]), whereas others have taken a familiar artefact and supplemented it with an abstract haptic signal such as a bed (e.g. [1]).

An alternative approach to designing intimate devices would be to take a familiar social behaviour and selectively model it across a distance through haptic means. The only behaviour which has received interest in this way is that of hugging [3].

The focus on novel sensory media in designing communication technologies for couples has caused mainstream media such as voice to be overlooked. This is understandable given the prevalence of telephones.

However, given the inherent intimacy of a person's voice, we want to explore the design potential of using voice within an interactive communication system based on the behaviour of sharing goodnight messages – the sleepyWhispers system.

In this poster we report our exploration of social behaviour devices by presenting our consideration of a design concept for exchanging good-night messages. We show our design of the sleepyWhispers device before discussing the key findings from a case study based on using the system.

THE SLEEPYWHISPERS PROTOTYPE

SleepyWhispers takes its departure by using sound as the sensory medium that it operates through. Communication systems commonly use sound as a medium -- telephones and video conferencing being prime examples. By using a loose interpretation of pillow talk as the design inspiration, we were able to design a communication system using sound without replicating existing systems.

SleepyWhispers is a way of sending recorded sound messages to your partner. The system consists of a pillow and a photo frame. Messages are listened to through a speaker, hidden inside the pillow. Messages are played when the listener presses the button embedded into the photo frame (see Figure 1). Messages can be recorded using any type of device (including on a PC or a mobile phone) as long as they are recorded in .mp3 format. The intended use case is that people record and send messages during the day to be listened to just before their partner goes to sleep. However, there is no technical barrier in the implementation preventing participants from developing their own usage pattern.

The system contains one further detail based on our interest in fleeting and realised outputs. Each message can only be listened to once; after which it is deleted and can not be listened to again. In this way the messages are clearly fleeting. However, while listening to messages, there is an option to download and keep the message, making them realised. This has both a practical and emotional outcome. Messages which are distorted and can't be understood can be downloaded and listened to again to ensure that they have been understood. In emotional terms, messages which are particularly special can be downloaded and kept, to be listened to and enjoyed again and again. There is no technological barrier to prevent users from downloading

every message sent through sleepyWhispers. One possible drawback to only playing the messages once is what happens if there are no new messages to listen to. Given this design problem, we decided against playing a notification sound, instead asking users to record an 'apology' message which played when there were no new messages for their partner to listen to.



Figure 1. The sleepyWhispers system.

It is expected that sleepyWhispers will be compared to an answerphone. However, there are some distinguishing features. Not only is the environmental context different, messages are intended to be recorded. Conversely, answer phone messages are only recorded because the person could not talk to the person they were trying to call. Finally, the fleeting and realised options for listening to the messages are somewhat different to that of an answer machine.

METHODOLOGY

The sleepyWhispers prototype was intended to explore the design potential around creating a communication system based on the behavioural qualities of sharing goodnight messages. We undertook a case study involving a single couple for eight weeks. The couple were formed of a male and female, both aged 26, who had been dating for 4.5 years. The couple live around 120 miles from one another.

During the study, participants kept a diary for two weeks before using the system, four weeks of using the system and two weeks after using sleepyWhispers. Following the study, a separate interview was conducted with each study participant; this is the data we are discussing here.

RESULTS AND ANALYSIS

All participant interviews took approximately one hour. The interviews were continuously audio recorded and then transcribed for analysis.

The first result to discuss is that participants found that sleepyWhispers helped to support the couple's relationship as the device was "something that would solidify our relationship as we both enjoy joking around" [pK].

This highlights how our participants used sleepyWhispers: "I was just using it to leave silly messages" [pK]. The participants overwhelmingly used sleepyWhispers to exchange messages which were humorous and used personal idioms. This worked well for the couple as they themselves indicated that they don't consider themselves to be "lovey-dovey" but to have a relationship based upon humour. This humour had an unforeseen impact. Given the nature of the messages, participants had no desire to download or keep them as "there was nothing in the content of the message that was really worth keeping" [pK]. Although it is difficult to generalise from this, it does highlight the potential to explore how voice messages could be better utilised.

The most important finding is that participants disliked recording the messages as they felt a need to listen to the message to check it over: "I'm happy talking to [pK] on the phone but recording something [about it] just made me feel uncomfortable" [pL]. This suggests that there remains value in exploring how best to use voice as a communication method. For example, are live links (such as a telephone) the only way to create a useful and intimate form of spoken communication for distant couples?

CONCLUSIONS

The first thing to conclude is that sleepyWhispers did help to support the couple's relationship by adding a new dimension to their communication ecology. This indicates that the design concepts built into sleepyWhispers have some value.

Of most interest to the UIST community is how the study has raised the issue of how best to use voice as a communication media given the visceral dislike our participants had about listening to their own voice when checking messages over. This suggests that we need to continue to explore how voice and sound can be used within communication technologies to help support couples in long distant relationships.

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