Socialight: A Mobile Social Networking System

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ABSTRACT
Social network data – information about connections between people – can be very useful to members of a network when they are mobile. This is when they are most likely to find themselves in close proximity to people within their network. After careful review of various types of systems deployed and in development, we found none that allow people to effectively use social network data to help them communicate while mobile. We set out to build a mobile phone-based system to explore how this could best be accomplished. Socialight is a social networking service, currently in the development stage, which features a socially filtered and location-based messaging system. Using their past movements and current location, users can interact with others in novel, expressive ways.

Keywords
Social networks, cellular phones, GPS, light touch communication, location based services.

INTRODUCTION
Mobile phones are near ubiquitous computing devices. Due to the proliferation of these devices, almost 1.5 billion people have access to people and information around the world anytime, anywhere. Since mobile phones are widely deployed, have powerful microprocessors and are networked with other mobile phones and existing communication infrastructure, they can be a useful platform for connecting in ways other than through voice communication.

Social network technologies claim to map virtual connections between friends. The websites built upon social networks can be fun and interesting to browse but users may lose interest quickly if there is no direct way to correlate the virtual and artificial social network with its real world counterpart. Furthermore, existing implementations of social networks are difficult to explore when they should be at their most useful – in social situations – e.g. at a bar, at the park or at the movies. We are developing a system that at its most basic level allows users to discover friends and friends of friends in their vicinity. This could help make the explicit connections that people mapped out using social network technologies more interesting in the physical world.

BACKGROUND
We were initially influenced by lightweight remote presence applications such as Matt Webb’s Glancing – which was in turn motivated by Erving Goffman’s work in “Behaviour in Public Places” where he observed that non-verbal expressive communication is used to initiate conversations between people who are in the same space but not necessarily talking to one another. The concept of presence awareness as well as the idea of focusing conversations between people who are in close proximity heavily influenced the development of certain features of our application – such as “Tap & Tickle”. “Sticky Shadows” were inspired in part by a comment from Masamichi Udagawa and in part by Greenberg and Kuzuoka’s experiences interacting with their physical surrogates, as described in their paper, “Using Digital but Physical Surrogates to Mediate Awareness, Communication and Privacy in Media Spaces”.

SOCIALIGHT
Friend Locator
The Socialight server tracks the user’s current location and the location of other users within their social network. If friends, or friends of friends, of the user are within a specified distance, the user is notified on their mobile phone. One of the core tools of the system displays friends and friends of friends physically close to the user. The user can then utilize this display to find out more information about a person by viewing their profile or by initiating communication with that person.

Tap and Tickle
Tap & Tickle are Socialight functions that allow the user to communicate gesturally with another friend on the network by controlling the length of a vibration on their phone. They can see who is “Tapping” or “Tickling” them and have the option to immediately respond. This “light touch communication” does not require such a large degree of concentration or commitment from both parties and is similar to ways in which we communicate physically – by glancing or tapping someone on the shoulder.

The following are some possible uses of a Tap or Tickle:
• say “hi” to a friend
• give a virtual kick under the table
• be flirtatious
• develop a Tickle-language with friends (a simple Morse-like code)

**Sticky Shadow**

Sticky Shadows are location-based messages that are left in a geographical place for specific friends or groups of friends. A Sticky Shadow can be configured to expire after a specified duration, to be available in only a specific area and to be viewed only by select recipients. The content of the messages can include text, audio, video or any combination thereof. When the intended recipient(s) enter the space, the Socialight application on their mobile phone notifies them of any messages and allows them to immediately respond. Figure 1 illustrates this process.

**REFERENCES**