
Designing and Evaluating Affective Aspects of Sociable Media to Support Social Connectedness

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Abstract

The use of sociable media for supporting social connectedness has been a serious subject of study for researchers and designers in recent years. Social connectedness is considered to be the momentary experience of belongingness and relatedness with others. Particular user groups may benefit from support in social connectedness, such as elderly or divorced parents and their children. Several research projects have made efforts to support social connectedness. However, there have been few formal studies into the factors affecting connectedness. Also, the way in which social connectedness has been measured in studies to date is diverse and often not grounded in psychological theory. This shows a need for more elaborate investigation in how social connectedness can be measured, what types of content could be shared between users, and which interactions should be provided by a system, when aiming for social connectedness. This should lead to guidelines and an ontology of elements to help and inspire designers of social connectedness systems.

Keywords

Social connectedness, computer mediated communication, interaction design, measurement

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Introduction

In recent years, many research efforts have focused on bringing people closer together through sociable media. Originally, such studies were limited to the domain of Computer Mediated Communication (CSC), but recently the home environment has become a prominent area of investigation. In home-based systems, the technology is interwoven in the users' daily routine. Typically, such studies start by gathering user requirements, develop a system to address the communication needs, and evaluate the system through field deployment [7,8]. Other projects in this space rely on an approach where the design is driven by the designers' intuition to create a more poetic experience of connection [4,6].

Sociable media for social connectedness has favored an ad-hoc design approach. Decisions of how users would interact with the system, what content would be shared through the system and how the system's impact would be evaluated, are often made based on the researchers' experience and formative investigations within the same project. Researchers and designers could benefit from a more structured approach towards designing sociable media aimed at social connectedness. In this abstract we discuss the evolving perspectives on designing to connect users through technology and we discuss the usefulness of social connectedness as a construct for evaluating the effect of sociable media. We will then discuss the challenges in designing such

media for enhancing social connectedness. We conclude with a description of the workshop aims.

Towards social connectedness

Extensive evidence underlines the importance of belonging for human wellbeing [1]. Both exclusion and loneliness have a strong negative psychological impact. People therefore have a powerful and fundamental need to belong. This need translates itself in a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships. In addition to a sufficient network size, people need enough interaction in terms of contact frequency and the amount of time spent engaging in social interaction. We define social connectedness as a short-term experience of belonging and relatedness, based on the satisfaction with one's social situation. This satisfaction involves the experienced quality and the satisfaction with the quantity of one's social relationships and interactions. Building on concepts such as the sense of being in touch [7], presence-in-absence [5] and social snacking, the salience of social relationships was incorporated in the concept. It involves experiences that remind people of their social relationships. An example of this is a feeling that is achieved by looking at a photograph of a significant other. The inclusion in social connectedness of these dimensions is important, as it allows for a broad and differentiated approach to the outcomes that various sociable media may have.

Social awareness and interaction

There have been several major classes of sociable media that aim to enhance social connectedness. One such category is awareness systems. These can be described as systems that aim to create awareness of significant others by displaying information about them. This could

e.g. be an image from a relative's environment, enabling the user to form a picture of the relative's whereabouts feelings [7]. Strong & Gaver [6] designed an awareness system that shows the user when the significant other has performed a social act towards the user, such as looking at a photograph of the user. Also reports are known where the users' awareness of the other person's location and performed activities [8] are displayed. Typically, awareness systems are embedded within the home or workplace environment and act in the background, only drawing attention when needed or desired. Such systems may work in concert with other media through which users may maintain social connectedness. Photo and calendar sharing have been popular areas of investigation for asynchronous communication (e.g. [3]). There are also a number of studies investigating synchronous communication, with a focus on rich media spaces for communication between remote family members or in the work place (e.g. [2]).

Challenges for sociable media design

To generate guidelines for enhancing the experiences of social connectedness, there are several challenges to overcome. These regard measurement and evaluation aspects, and the sociable media properties that may be designed to meet the needs of different user groups. The focus of this workshop will be on measuring social connectedness, types of content mediated by sociable media and interaction affordances of such systems.

Evaluating social connectedness

Until now, the testing of sociable media has mainly focused on acceptance and usability. If addressed at all, the social effects of such applications have mostly been assessed in an ad-hoc qualitative fashion. This stems from a lack of generic measurement instruments to

address these social outcomes. We believe this may hamper the development of these applications, as design choices cannot be systematically compared and evaluated. Thus, a theoretical construct is needed that is amenable to the development of a measure. This measure should be sensitive for time and subtle changes, focusing on the positive experience of belonging and relatedness. To achieve this, the concept should emphasize short-term social experiences and address relevant aspects of feelings of belonging. The measure should be the basis for gaining knowledge on the effectiveness of communication tools on enhancing social connectedness. This provides insight into how sociable media can be improved in this regard, thereby supports the systematic design of such systems.

Types of content mediated by sociable media

To give meaning and value to social relationships, people share information about their lives. This may vary from rational to emotional information and can include positive and negative aspects. The interpersonal awareness of each other's lives can stimulate social connectedness. In known sociable media, the communicated information can vary on two aspects. First, the content itself may be different. For example, in some cases the content may consist of images or audio samples, where in other cases types of activities are communicated. Second, the level of detail of the shared information may vary. For example, presence can be communicated as a simple binary value whereas in other cases the whereabouts or the activity being engaged can be communicated. Another aspect is control mechanisms and allowing users to maintain plausible deniability and other ways of preserving privacy, through strategies such as blurring information.

Interaction affordances

The social connectedness needs of a particular user group may vary based on the type of relationships that are involved, the group's current routines for maintaining relationships, and the system's context of use. The designer must make decisions about whether the users' social connectedness needs would be better met by: 1) synchronous or asynchronous systems, 2) systems that support mobility or ones that have a fixed location, 3) systems that provide opportunities for rich and active interaction or ones that focus on peripheral interaction, and 4) systems that present a symmetric experience to all users vs. ones that are asymmetric to support a social dynamic and individual need (e.g. parents and children). These considerations influence the technologies that may be leveraged in the system, the supported modalities, and how the designer aims to integrate the prototype technology into the complex ecology of communication tools already present in users' lives.

Workshop contributions

In this workshop we aim to bring together researchers and designers from the domains of design, computer science, sociology and psychology, working on the use of sociable media for enhancing social connectedness. This workshop aims to draw across the existing work, in order to arrive at a more rigorous understanding of the design dimensions and how decisions along these dimensions may influence social connectedness. The focus of the workshop is on 1) the evaluation of social connectedness, 2) the use of different types of mediated content and 3) the interaction affordances of a sociable media system. First, we need to chart the known approaches with respect to these three issues. Evaluation methods should be categorized and the design space for content and interaction should be de-

finied. Different approaches are to be categorized on these three levels and links drawn between them. Finally, the workshop will give an overview of the different approaches, design guidelines will be formulated, and directions for future research will be identified.

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