

Physical Representation Social Presence with Interactive Grass

Jui hang Shih¹, Teng-Wen Chang², Hui-Mei Hong³, Tian-Chiu Li⁴

¹ Graduate School of Computational Design, National Yunlin University of Science and Technology

¹{g9434707, tengwen, g9434713, g9434714}@yuntech.edu.tw

Abstract. The hypothesis that happy team members are more cooperative than sad team members has become a popular presumption in social and applied psychology. The member negatively may affect the emotion, mood or attitudes, and continually annoys the rest in the team, and positive either. Also, how do es team member learn more adaptive emotion strategies in complex relationship. This paper introduces a research program on social presence theory and practice of technology creation based on application of emotional physical device. The simple concept of our study is to create an interactive system of expression in the following areas: (1) Theoretical Research: research of social presence and the team members in adopted an emotion system; we will study social media concept in scientific fields, and then establish a program of slow theology. (2) The interactive table as human emotion.

Keywords: Emotion, Social media, Adaptive, Affective, Interactive Behavior, Corporation design

1 Introduction

The interface problem within an office is not a fancy media or a high-tech innovated design, but a social surface between office workers and their cooperated members. Furthermore, emotional control is the most needed but very difficult to achieve requirement for an efficient working environment.

A typical office environment will have a higher productivity only if they have an efficient and sometime happiness atmosphere as a working environment. Plants, office furniture and the desktop software that lie on every desktop of people in the office are affecting everyday's working life.

In addition, with current state-of-the-art technology developed over the years such as calm technology [1], ubiquitous computing and ambient intelligence, computing has got a social status that has never been achieved before. Computing has become a social media and aiding social and collaboration further with more activities and social psychology studies.

2 The Problem

Experiences of positive emotions can transform us into more creative, resilient, socially integrated, and healthy individuals [2]. We found that group mood is typically awareness at team. Most members have traditionally express on facial expression. As such, to learn what the best adaptive way is and let most team members learn to manage their emotions by observing others in the workplace.

Hide negative or positive emotions Hidden emotional control and the visualization of such hidden emotion. Even a team member wants to achieve a better productive but still will be affected by the implicit emotional acts and turn this will not discuss about meaning emotional acts.[6] Emotional acts still affect the mood of cooperation and atmosphere of working environment.

Slow technology With the technology described above, we propose a system to collect and represent a new communication process. With the timing process, the concept of slow technology has been used for the time/slowness of such interaction. Time is the cue.

2.1 Calm technology

Calm technology is the very important design problem of the twenty-first century [1], we do not watch at it or near it to take advantage of its peripheral clues and it will communicate both light and network by integrating with human information processing. You do not need to take any space on your existing computer screen or contain a computer at all.

2.2 Silence/ambient media

Silence the simply defined is the absence of sound. There are two aspects to sound: Its generation and its perception. An ambient in which events and states in both physical and computational environment is reflected in the form of intrusive audio cues. [1]

2.3 Ambient furniture

Ambient lighting or component system integrated with furniture can be changed by reversal of the yoke of one or more supporting fixture heads for mounting structures [3].

2.5 What are the domains we are aiming and studying for this problem?

How to use interactive interface to utilize emotional information for social objective have been noted, including: (1) individuals differ in workgroup how to harness their own emotion but represent in some other way; (2) What kind of emotions information and moods is used to motivate and assist in improved whole team performance; (3) Discover that moods may be able to facilitate more creative or affection responses and native doesn't. (4) Press blurred emotions and moods information can subtly and systematically influence certain strategies components and affecting workgroup relationship.

3 Related Works

With the technology described above, we propose a system to collect and represent a new communication process. With the timing process, the concept of slow technology has been used for the time/slowness of such interaction.

Collecting information: we cannot sense or collect implicit biological information such as emotion, intention, speaking tone and attitudes and eyes' sight. Even so, some technology like forum, such as blog, MSN title and anonymous email and bulletin board will somehow unleash the inner feeling of personal emotion.

We can not convey most things as accurately as usually required. But when talking about something such as emotions, feelings and sensations we can only relate to someone else's experience through reference to our own. What we see, hear and what we can diagrammatically think are close to what others seeing but when it comes down to feeling, emotion and other kinds of we can not sensation. But describing human emotion directly without the use of any other perceptions information, sensory or what the following feelings like is difficult. [4]

MSN Messenger offers consumers integrated and easy ways to communicate the way they want with the people they care about paging colorful and capabilities icons, like smiley faces, that let them express their emotions in IM conversations, all from the MSN Messenger user interface. It has experienced lets people successful personalize emotions such as happiness, sadness or love using the new face and heart icons.

4 How We Approach

With the technology described above, we propose a system to collect and represent a new communication process. With the timing process, the concept of slow technology has been used for the time/slowness of such interaction. [5]

Our own emotional state and our perception of that of others with which we collaborate influence the Outcome of cooperative work. The evolution of media has decreased the significance of physical device in the experience of people's emotion. One can understand how an audience to a social concept is with being physically present and one can communicate not directly with others without facing in the same

place. With the growing grass and computational support for the recognition and representation of emotions, there is a clear interest in adding such facilities to social media and to evaluate the positive and negative effects of using this emotion icon from personal computers by internet. In this paper we discuss the social presence with involved in supporting a new type of collaborative awareness in Physical representation system.[6]

The emotional awareness also present more adventured and invaded, intruded emotion-based applications. [7] It means how if one privately affects other's grass. If you have more passive emotion you also make some way to push the weather comptroller and change the whole situation maybe someone be encouraged cause the "silent helping". Then we will provide new generation "*table lawn*" grass social presence system.

The new computational model of emotion-based applications in real time affective-cognitive of physical receive from nonverbal cues such as head and growing displays of grass, and communicates these inferences by the intruded wearer [8]. While the social media with computing is still relative new, further motivated and exciting work in this area within the social presence of collaborative community has started to motivate and inspire more researchers like us nowadays [9].

5 The Implementation

"Grass" is an affective and inactive people emotion representation system that explores ways to augment and enhance the physical emotional-social intelligence (shown in Fig. 1).

We make a working table with real grass and weather control system inside, the regimen right for "table lawn" care will vary, according to the group or team member emotion, if their expression changes to happy, the "planting cultural system" adapts so that the water and sun light are vibrant and more subtly applied (shown in Fig. 2)

There are numerous ways in which emotional awareness can be used in personal *Widget emotion online tool*. The user's privately "emotion icon" of widget emotion tool needs to identify the positive and negative implications of computer-mediated affective communications whether your lawn is composed of a warm season turf grass or a cool season turf grass. Examples of each "emotion icon" are given. The planting cultural system likes the real weather central by each person. We think the emotion face's information just temporary, our digital device and online software can receive more referable information. In this project, not just switch the weather system, we have some analysis processing and methodology. We do not want to represent the each member's for a short time period. In addition, we want to see the affection in a gradual change of whole team and "grass".

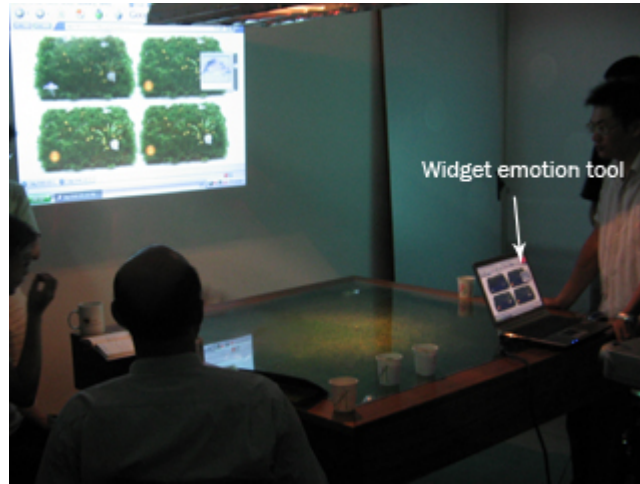


Fig. 1. Using Grass online with widget.



Fig. 2. Grass table's structure.

5.1 Framework

The Grass was divided into three parts. One is the emotion information receive area, another one is ecological area and the last one is weathering area. The emotion information receive area will collect the emotion sight from each member then process and analysis to order weather system change the whether inside table. We

have the real nature plants in table, the effect just do to living things. Members' emotion will express on the grass. If you pass the grass not only see the grass, but you can also see this table users' emotion secret. Moreover, you can also discover a period of somebody's mood silently privately and make you a metaphor of your own then the emotion begins to communicate with each other.

5.2 The weather Analysis

We collate the team member's emotion information and try to simulate the most approaching real mood. Further, we also compare the social activity information. It is the better way to analyze the member's mood, because the emotion is related to relationship of workgroup.

Table 1. Weather type related to emotions

Emotional style	The following weather	Grass condition
1 st -the emotion is quiet with less social activities	Light raining	Growing slowly
2 nd - the emotion is quiet with more social activities	Heavy light	Growing steady but die slowly
3 rd - the emotion is exacting with less social activities	Heavy light and steady rain	Growing fast
4 th - the emotion is exacting with more social activities	Heavy light and rain	destruction

6 How we learn from Grass

The relationship of team members have outcomes in hidden or blurry way and express the emotions on indirectly performance will grow some cues to let the stoical subtraction to adapt real emotions.

The value of the project is affording new interface for hidden emotion but can still commutate. In addition, the metaphor of emotion each discovered can develop new communication and new social media. Furthermore, we can conclusion in noted point: (1) if individuals differ in workgroup could express their own emotion; the group will have some well mood regulation. (2) Will any emotions information and moods is very easily used to discover and the whole team mood directly affects workgroup relationship.

References

1. Mark W., John Seely B. : Designing Calm Technology. Xerox PARC. (1995)
2. Douglas J. : Configurable furniture integrated ambient lighting system and method. NSI Enterprises, Inc. (1999)
3. Fredrickson, B. L.: The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *Psychologist. American* (2001) 218-226.
4. Short, J.A., Williams, E., Christie, B.: *The social psychology of telecommunications*. John Wiley & Sons. New York(1976)
5. Dyer, M.G.: Emotions and their computations: Three computer model. *Cognition & Emotion* (1987).
6. McCauley, T.L., Franklin, S.: An Architecture for Emotion. AAAI Fall Symposium Emotional and intelligent (1998)
7. Ortony, A.: Is Guilt an Emotion? *Cognition & Emotion I* (1987) 283-298
8. Pfeifer, R.: Artificial Intelligence Models of Emotion Cognitive Perspectives on Emotion and Motivation (1988) 287-320
9. Picard, R.: Does HAL cry digital tears? *Emotion and computers*. 2001's Computer as Dream and Reality (1997)