The Common Touch:
Aesthetic and affective interaction in semi-public settings

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1   Introduction

The artistic community has been developing interactive works for public or semi-public settings for a number of years. These works utilise the public setting to tailor interaction and add an aesthetic dimension. In a similar approach, we are designing and implementing a system called *The Common Touch* (http://www.hiit.fi/~coutrix/art/TheCommonTouch/thecommontouch.html), which draws on the similarities between political revolt and advertisement in their use of the affective engagement of crowds.

Crowd interaction is consequently an essential dimension of users' experience with *The Common Touch*. In order to leverage this aspect in our design, we consider a large group of people as a single, elementary "user". The novel contribution of *The Common Touch* is to consider the affective expressions of the crowd as a whole. The scientific aim of the installation is to raise appropriate questions about affective group experiences and propose a prototype pervasive affective system for crowds.

2   Design

In order to engage the visitors as a crowd, the exploration of the interaction is made possible along three dimensions: abstraction (1) and space-time (2). The defining characteristics of touches on a display surface, the number of participants in the background looking at the screen, keywords spoken and the affective interpretation of speech are analyzed to compute three abstraction levels of affective loops: (A) low-level reaction as in [1], (B) intermediate response to affective expressions and (C) semantic aspects as in [2]. Unlike Vogel [5], we do not consider the transition to *personal* interaction. However, we still define several levels of *crowd* interaction, based on previous studies [6][4][3]. These levels are anchored in space (*e.g.*, people

watching in the background vs. people directly interacting through touch) and time (*e.g.,* people touching with a single finger on one hand, and then using additional hands or fingers). Our interface explicitly weaves both characteristics into the design. Interaction in these three dimensions facilitates group exploration, and engenders a fun experience and subsequent reflection.

3   Data

We have planned users studies in two stages. Firstly, ongoing pilot experiments allow us to evaluate an initial downscaled prototyped (Fig. 1(a)). The data we collect from pilot studies includes sound and video recordings from different viewpoints, as well as logs from our software and data from questionnaires. We have so far conducted three sessions of interaction for a total of 33 minutes of interaction and expect more in coming weeks. This downscaled study allows us to evaluate the installation with a small sample crowd in order to evaluate our design as early as possible. Secondly, the final study will take place in autumn with a full-scale 4.80 m × 1.60 m wall (Fig. 1(b)) and a sizeable crowd. We expect a number of visitors according to the size of the screen over several days of exhibition at ENSAD[2].
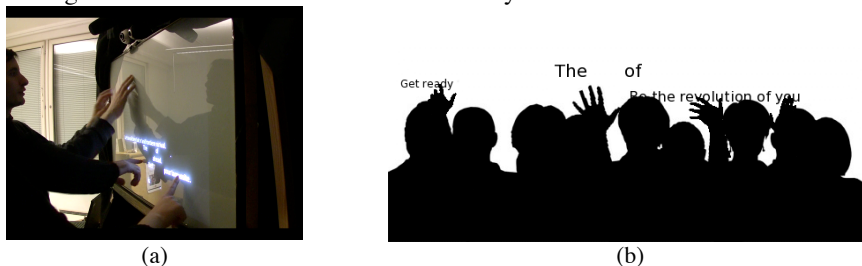

(a)   (b)

Fig. 1. View of interaction (a) during a pilot study with a concentration around 4 users per metre (here three users for the 70cm wide screen) and (b) during final user study (envisioned).

References

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