



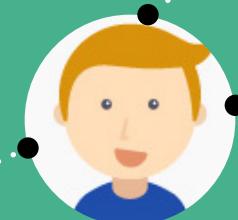
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Strengthening Collaborative Groups Through Art-Mediated Self-Expression

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INTRODUCTION & BACKGROUND

Collaborative Groups

- E.g., enterprise teams.
- Collocated or distributed groups consist of people connected with each other because of common interests or goals.
- Communicate to exchange information for accomplishing goals.



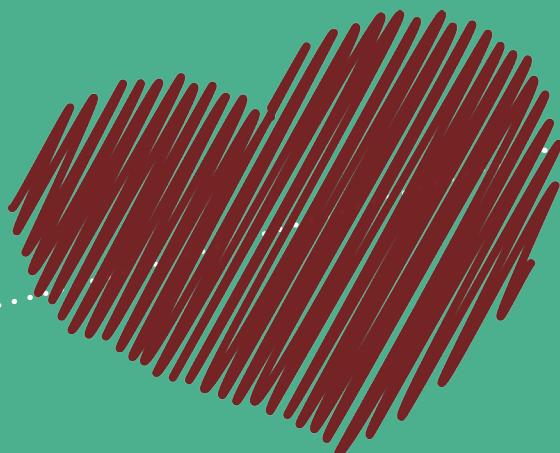
INTRODUCTION & BACKGROUND



Self-expression and Sharing of Affective Information

- Have been proven to strengthen groups.
- Help promote positive emotions, increase interpersonal awareness within a group, and facilitate group cohesion.

But it is challenging to support the exchange of affective information with current communication and collaborative technologies.



RESEARCH QUESTIONS

For Collaborative Groups ...

- How do we encourage people to express their affective information in a more implicit way when direct conversations may neither be desirable nor possible?
- How do we support sharing of affective information to facilitate understanding and compassion, hence strengthening groups?

<http://creativejuiceartbar.com/team-building/>



INSIGHTS

From Art

- Art therapy: helps promote positive personal emotions, creates a favorable social environment, and reduces interpersonal conflicts.
- Art in team building: helps build interpersonal relationships and trust.

Art engages people to express, read, interpret and communicate through multiple senses, and arose affective reactions.

PROPOSED SOLUTION

Digital Art-Mediated Self-Expression

PROPOSED SOLUTION

To engage people in implicit expressions and sharing of affective information through socially engaged art practices.

Digital Art-Mediated Self-Expression

INSIGHTS

From Interdisciplinary Research on Design in HCI

- Meta-design: uses intentionally unfinished designs to engage users as co-designers, or open-ended interactive artwork to engage participants as co-creators.
- Socially engaged art practices (SEA): uses social practices to stimulate new creativity and meanings.
- Critical design, reflective design, ...

Interdisciplinary inquiries benefit HCI by providing different angles to study, analyze, design for, and evaluate the relationship between technology and humans.

INSIGHTS

From End User Development (EUD)

- End users: no longer passive information receivers but actively engage in creating and critiquing the designs.

EUD promotes supportive socio-technical environments to encourage the culture of participation.

INSIGHTS

From Public Information Visualization

- Supports social and civic purposes in public spaces.
- Helps increase awareness of social problems, encourage discussions, and facilitate behavioral changes.

Visual technologies help collect individual data and present data socially in order to get individual issues considered collectively.

INSIGHTS

From Collaboration Research

- Trust facilitates collaboration in distributed teams.
- Casual communication approaches to build trust: e.g., small talk.
- Unconventional communication approaches to build social ties: e.g., games.

Applying technology to support communication and collaboration in a playful, freefrom way.

DESIGN PRINCIPLES

1. Enable Implicit Self-Expressions Through Diverse Interactions and Gateways

- Providing a mechanism for multiple types of affective information.
- Being able to translate diversified input into representations that encourage sharings and explorations within the group.

DESIGN PRINCIPLES

2. Design for the Catharsis Process

- Supporting the process, not the result.
- Less goal-oriented, more freeform.
- Supporting participants to spread out, get connected, and find support.

DESIGN PRINCIPLES

3. Reveal Group Patterns Through Socially Collective Artifacts

- Showing all individual inputs.
- Revealing the patterns and social interactions among collective individual data.
- Supporting explorations of meanings through socially collective artifacts.

DESIGN PRINCIPLES

4. Build Empathy Through Reading and Exploring the Social Artifacts

- Providing an attractive, engaging experience.
- Helping participants to gain engagement and reflection.

DESIGN PRINCIPLES

5. Embody A Mechanism to Make Information Anonymous in Order to Protect Information Privacy

- A mechanism to make personal identification abstract and anonymous.
- Helping build trust between participants and the system.

CASE STUDY

Doodled “Us”

- Aims to help increase awareness and build empathy of each others' mood among local members through collaborative doodling.

- Mechanism:

- Allows users to draw in colors that stand for their moods, on a shared canvas that is simultaneously projected onto public displays.
- Collaborative drawings merge into one piece of the overview mood of a group.
- Users get connected affectively through the activity and visual communication.

1. Select a color for current mood.



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2. Simultaneous display in public space.



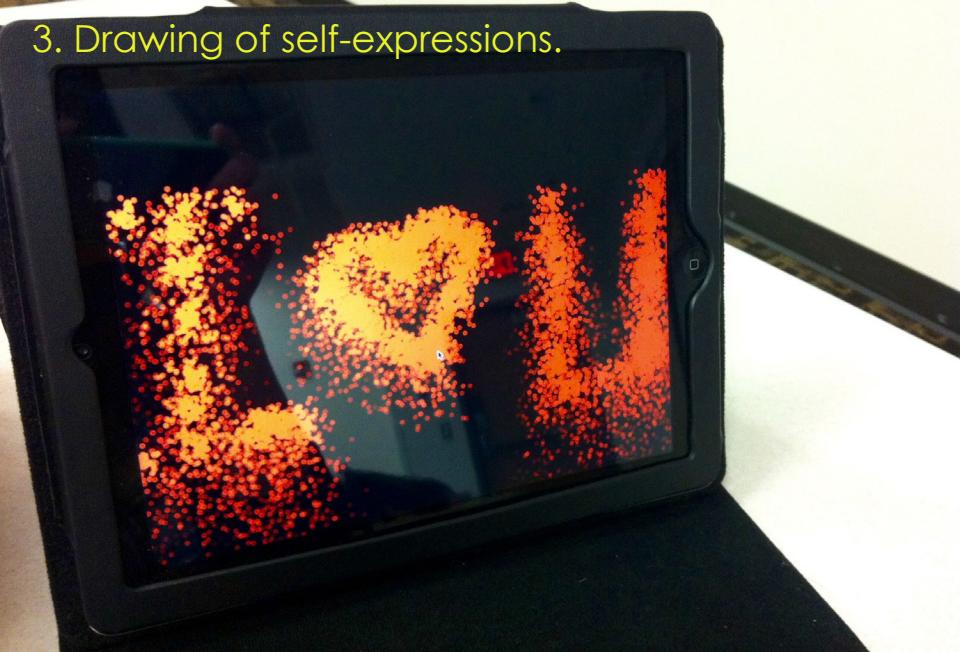
1. Select a color for current mood.



2. Simultaneous display in public space.



3. Drawing of self-expressions.



1. Select a color for current mood.



2. Simultaneous display in public space.



3. Drawing of self-expressions.



4. Sharing with others.



5. Collaborative visual result by multiple users.
Reading, interpretation, visual communication.



CASE STUDY

Principles in Practice

1. Enable implicit self-expression through diverse interactions and gateways.
2. Design for the catharsis process.
3. Reveal group patterns through socially collective artifacts.
4. Build empathy through reading and exploring the social artifacts.
5. Embody a mechanism to make information anonymous in order to protect information privacy.

IMPLICATIONS FOR STUDIES ABOUT DISTRIBUTED TEAMS

Promoting Positive Personal Emotions to Reduce Conflicts in Distributed Teams

- Promoting positive emotions through art practices.
- Sharing art-mediated self-expressions creates shared identity, shared context, and spontaneous communication across multiple locations.

Hence art-mediated self-expression is able to help mitigate the conflicts that occur in distributed teams.

IMPLICATIONS FOR STUDIES ABOUT DISTRIBUTED TEAMS

Improving Interpersonal Relationships and Trust

- Self-expressions help develop a unique perception of intimacy by sharing feelings rather than information.
- Art offers a resource for design that can be used to encourage self-expression within the team environment.

Hence, art-mediated self-expression is able to help relationship and trust development among team members.

IMPLICATIONS FOR STUDIES ABOUT DISTRIBUTED TEAMS

Encouraging Cross-Cultural Interaction

- A non-destructive way for people from different cultures to express themselves without consenting on norms.
- Provides a mechanism to avoid identifications, and a venue for people from different cultures to express themselves freely.

Hence, art-mediated self-expression is able to encourage cross-cultural interactions amongst distributed teams.

FUTURE WORK

Digital Art-mediated Practices for Team Building for Distributed Teams

- Iterations on design concept.
- Theory building.

