

# Serious work on playful experiences: a preliminary set of challenges

Henriette Cramer<sup>1</sup>, Helena Mentis<sup>1</sup>, Ylva Fernaeus

SICS / Mobile Life Centre

Kista, Sweden

{henriette, helena, ylva}@mobilelifecentre.org

## ABSTRACT

As work, leisure and social activities blend together, and amateur and professional practices becomes harder to distinguish, we need to explore the role of technology that works to support people in this rich range of everyday experiences. Incorporating fun, playful elements in the workplace is essential for enhancing creativity and making work activities more socially and emotionally meaningful practices in which to participate.

## Author Keywords

Fun, work, playful, experiences

## ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

## INTRODUCTION

Notions such as play and learning, work and leisure, as well as casual and serious technology use, are often presented as conceptual dichotomies that may be difficult to combine. For instance, the framing of CSCW compartmentalizes work to something that is specific, identifiable, and separate from the rest of one's life. However, to many people, life is not meaningful to compartmentalize in such a way. Not only do people identify socially with their profession outside of work (e.g. asking someone what they do is a common way of early acquaintance in western cultures), off-work social interaction (coffee breaks, after work drinks, sports activities) with work colleagues is increasingly common in professional life. Practices and technology travel between the work and leisure spheres of our life; mobile and pervasive technologies accompany users wherever they go.

We at the Mobile Life Centre work around a vision of a *ludic* society where work mixes with leisure, private with public – a society where enjoyment, experience and play are looked upon as essential in all aspects of life. We are currently engaging in research on 'playfulness' as a facilitator for creativity, innovation and social connectedness. By *playful* we mean non-utilitarian (but not necessarily non-useful) aspects of interactions that provide pleasure or amusement. This naturally includes a

very broad range of activities, including casual social interaction as well as designed individual challenges, to actively act and perform as well as being merely presented with information or content, pure artistic beauty, as well as bold breaks with social conventions of appropriateness in design. Further it seems that playfulness is to a large extent a matter of how an activity is approached, rather than an intrinsic property of the activity itself [4]. In designing technology for playful experiences Korhonen et al [18] states: "Our hypothesis is that playful experiences emerge from interactive products that allow users to have a playful approach while using them" (p. 277).

In investigating playful experiences we aim to understand what constitutes enjoyment in using a product; the different experiences a product can elicit, and how to design in a manner that evokes a specific kind of experience. Attributes such as fun and pleasure are currently abstract and there are uncertainties as how the different possibilities for supporting playful experiences can be addressed in design. In this working paper we present our view on playfulness, exploring some of our research questions on how to design for playful experience and how to study and identify these properties of everyday activities.

## BACKGROUND

### Emotion in Work

Emotions, such as joy and amusement that are integral to experiencing fun, have rarely been regarded as an important component in the design of technologies in work settings. Cziksenti-mihayli observed that those with similar professions enjoy their work differently [4]. This difference is because some of the workers took on a playful approach to their seemingly tedious tasks, thus getting a better experience of life quality in general. However, usually when emotion has been investigated in work activities, the emotional content is typically viewed as an external, lubricating factor to the work activity rather than content integrated within work activities. For instance, people work to keep a social network 'at hand' so that they can activate communication activities when needed to facilitate work goals [21]. In one of the

---

<sup>1</sup> This work was carried out during the tenure of an ERCIM "Alain Bensoussan" Fellowship Programme

examples in [21], an interviewee told of sending an instant message to a coworker to ‘just say Hi’ in order to indicate affinity as part of maintaining a social connection. This affinity could then be called upon for future work-specific communication.

The lack of attention to emotion in system design for work is consistent with the general orientation of organizational behavior researchers, who have tended to view emotion as an unimportant and an inappropriate aspect of work [1; 22]. Traditional theories of cognition and decision making position emotion as the antithesis of rational thought. Indeed, decision-making that weighs emotion over reason has often been blamed for poor decisions. These theorists believe that emotion does not and should not play a part in real work. Instead emotion is viewed as a ‘disturbance’ – something that employees must work around or address, but not actively engage in.

Despite this traditional yet still pervasive absence of emotion in formal models of work, a growing number of studies over the last two decades have documented important roles for emotion in work (for a review, see [12]). For instance, researchers have found that positive group affective tone can improve group processes by increasing cooperativeness and group performance [2; 11]. In a sense, this growing collection of empirical studies and theory can be seen as an ‘emotion revolution’ that has spread from the cognitive sciences to the social sciences in the study of work. For example, in *Understanding Emotion at Work*, Fineman [9] regarded the typical study of organizational life as bland – that which does not allow the complexities of practice to be revealed. He argued for the use of an emotional lens (i.e. viewing emotions as an important aspect of all work and interactions), and he considers emotion to be the primary medium through which people interact.

## **OUR STANCE**

In our recent work on designing for playfulness we have devised the following conceptualizations that guide our designs.

### **Fun is already part of work**

Despite the traditional separation of work and play, having fun is already part of current work practices. Although not present in all work places, work outings, holiday parties and water cooler talk are all integrated into many work settings in order to increase social connectedness. However, fun cannot be viewed as a separate occurrence only, or as an ‘add-on’ to work. Rather, integrating playful elements to increase flow and enjoyment of ‘the real work to be done’ can increase creativity and motivation.

Importantly, fun is not only used to relieve boredom from ‘life in the office’. In highly-critical contexts, fun is integral in balancing high-stress moments with moments of relief. For example, joking behavior was found by one of this paper’s authors to be prevalent in the high-stress context of emergency rooms [20]. Although, from the outside, joking may seem to be a positive emotion, it is normally evoked in reaction to a negative emotion.

Joking behavior was highest on high activity (i.e. stressful) days. People, thus, juxtapose the stressfulness of their professional lives with playfulness. It seemed that, at the group level, joking in the face of adversity can be construed as an indication of control and a healthy outlet for feelings of frustration. In the ER, it is understood that everyone “has those days” and has emotions; however, there is still an acceptable range within which such emotions are displayed. Colleagues who joked and ‘made work fun’ were highly appreciated. However, fun at the workplace still has to fit the mold of what is socially acceptable and what retaining a professional image. The setting in which a ‘fun’ activity occurs, including socio-cultural norms and interpersonal relationships, determine which emotions are invoked.

### **It isn’t about a moment, it is part of a larger experience**

A general development in contemporary social and cognitive sciences is the so called “practice turn” in which embodied and social aspects of human activity are put to the fore [23]. Fundamental to this is a shift in focus from considering “processes of individual cognition” as basic, to considering processes of “interactions people have with each other and with the material and representational resources in their environment” as basic [13, p15].

A core consequence of this, and which has been highlighted for instance in Dourish’s work on embodied interaction [6], concerns how some of the most important aspects of an activity often lie outside of the actual interaction with the system. The expanded space for interaction provided by e.g. mobile, pervasive and ubiquitous technologies draws in physical and social context to a large extent. This suggests that we need to consider both interaction with the system and interaction between participants around a system in our design efforts. To pursue such a commitment naturally involves a number of challenges, theoretical as well as practical. However, as discussed e.g. by [8], this could be viewed as primarily a conceptual task – shifting from an information-processing perspective to a more action-centric one [6; 14].

### **There is no one instantiation of fun**

There are huge variations between users in what they find pleasurable or fun. Experiences and emotions are deeply personal. What constitutes an enjoyable experience for one person might be a highly annoying and unwanted distraction for another. For some users, fun constitutes hard challenges that stretch their abilities to the extreme; while for others, pleasurable experience constitutes casual social interaction, aesthetics and beauty. This illustrates the importance of an open-ended design that does not predefine the experience the user should have. What might be playful for one person may not be playful for another – even in the same environment. A designed system, product or activity must be left open to creation by the ‘experiencer’ in the moment they are engaging with it.

### **Positive and negative cannot be separated**

There is a tendency in the literature to separate fun from more negative experiences. However, temporary, seemingly negative attributes of experiences can be a critical part of a broader fun, playful and rewarding experience. Challenges and seemingly negative aspects such as 'strenuousness', waiting, physical hardship, unfriendliness, and tension are usually essential elements of experiences that people categorise as 'fun' (achieved with moments of 'relief' or excitement) in leisure activities such as hunting [17] and spectator sports [7].

Seemingly negative and socially unacceptable activities can also be fun. In a previous study by one of this paper's authors, a system was designed to demonstrate that a seemingly deviant technology could produce socially desirable outcomes [10]. They designed a deviant networked agent called Loki that asked seemingly innocent questions of users and then passed along a modified form of that information, much like gossip. Tested with a collocated industry work group, the researchers showed that interactions with the online character successfully provoke off-line interactions between the workers. They demonstrated that deviance can be a useful tool for encouraging social interaction and provided evidence that deviant systems can be enjoyable and useful for users.

### **We may not be able to explicitly design for Fun**

This theme relates to the general focus within HCI to increasingly turn attention to the study of natural use settings. At CHI, this has implied a shift from design approaches and user studies with pre-defined sequences of action, towards leaving the use patterns open for exploration by users, preferably in their ordinary environment. This is also shown in ethnographic explorations studying usage of technology for instance in cafes, schoolyards and homes. As with Stebbins [25] definition of casual leisure, this includes activities that tend to develop on the spot, by the participants themselves, without assumptions of *a priori* commitments of what exactly should be completed or performed. And, as pointed out in [5] 'expected fun', really isn't that much fun.

From a design-oriented point of view, Sengers and Gaver [24] have conceptualized this challenge as "staying open to interpretation", thereby suggesting that designers should not have only one preferred interpretation in mind of how their system should be taken into use. Instead users should be allowed to engage in multiple possible interpretations of a technology. Such openness puts the designer in a new position in terms of how to set up goals for their work and also how they orient themselves towards these goals. The same goes for evaluation. What should be evaluated and what is a successful design becomes less clear-cut when there is not one appropriate user interpretation to search for.

Striving for enjoyable and pleasing, rather than just usable and efficient interfaces is a helpful starting point [19]. A design should set the scene in which enjoyment and a playful approach are enabled and encouraged. Fun

may require a level of structure [17; 7]. For example even leisure activities such as hunting and being a spectator at a sporting event require organization in order to, among other things, increase the enjoyment gained from the activity. However, 'enforcing fun and playfulness' in a predestined way will hardly be productive. Setting a scene in which fun is encouraged may also push existing boundaries and taboos. The question is how to fulfill the requirements of the socio-cultural setting and the emotional needs of people who have to feel comfortable integrating the experience in the professional role they choose to take on (or are required to fulfill).

### **Measuring the construct of Fun**

'Fun' as a concept cannot be simply translated into a scale. Measuring affective experiences could be impossible as well as inappropriate [3]. Instead, evaluations have focused on a 'fun factor' such as 'enjoyment'. We should however take care not to try and capture the user's experience in rigid, numerical criteria only. Due to the great individual differences in what constitutes a fun experience, trying to generalize what interactive experiences are fun and which are not can be very detrimental to the individual user's experience. We also need to involve participants in evaluations without 'taking the fun out of fun'. We cannot look at a single moment in time or after-the-fact; we need to evaluate the larger experience. The deeply personal character of fun and playful experiences also make quantitative evaluation challenging. Development of complimentary evaluation methods that are enable people to evaluate their affective experience as it unfolds, in an enjoyable manner applicable across cultures, could be helpful [15]. Rich analysis using ethnographic techniques and more open observation and interviews can yield additional insights in why users have certain attitudes and show certain behaviors that never can be captured in a score on a scale [16].

### **QUESTIONS FOR THE WORKSHOP**

Based on our above stated stance, these are questions in which we would like to engage the workshop participants in a discussion on.

1. It seems people have completely different experiences with the same type of work. How can we approach the problem of 'designing' for fun?
2. How do we evaluate fun if it is experiential, context-dependent and different for each person?
3. Is pushing the boundaries necessary for having fun?
4. How can we move from findings and theories to concrete design?
5. This paper has been a quite formal position statement. How can we make communication about research on playful experiences more engaging, i.e. taking the topic seriously without taking away the 'fun'?

## REFERENCES

1. Ashforth, B., & Humphrey, R. (1995). Emotion in the Workplace - a reappraisal. *Human Relations*, 48(2), 97-125.
2. Barsade, S. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47(4), 644-675.
3. Boehner, K., DePaula, R., Dourish, P., & Sengers, P. (2007). How emotion is made and measured. *IJHCS*, 65(4), 275-291.
4. Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper Row.
5. Davenport, G., Holmquist L.E. & Thomas, M. (1998). Fun: A condition of creative research. *IEEE Multimedia*, 5(3), 10 - 15, 1998.
6. Dourish, P. (2001). *Where the action is: The foundations of embodied interaction*. MIT Press.
7. Esbjörnsson, M., Brown, B., Juhlin, O., Normark, D., Östergren, M. & Laurier, E. (2006). Watching the cars go round and round: Designing for active spectating. *Proceedings of CHI*.
8. Fernaeus, Y. & J. Tholander (2006). Finding design qualities in a tangible programming space. *Proceedings of CHI*.
9. Fineman, S. (2004). *Understanding emotion at work*. London: Sage Publications.
10. Foucault, B., Mentis, H.M., Sengers, P., & Welles, D. (2007). Provoking Sociability. *Proceedings of CHI*.
11. George, J. M. (1990). Personality, affect, and behavior in groups. *J. of Applied Psychology*, 75(2), 107-116.
12. Grandey, A. (2008). Emotions at work: A review and research agenda. In Cooper, C.L. et al. (Ed.), *Handbook of Organizational Behavior* (235-261). Sage.
13. Greeno, J. (1997). On Claims That Answer the Wrong Questions. *Educational Researcher*, 26(1), 5-17.
14. Heath, C. & Luff, P. (2000). *Technology in Action*. Cambridge University Press.
15. Höök, K., Isbister, K., & Laaksolahti, J. (2006). The sensual evaluation instrument: Developing an affective evaluation tool. *Proceedings of CHI*.
16. Höök, K. Ruttkay, Z. & Pelachaud, C. (2004). *From brows to trust: evaluating embodied conversational agents User-centred design and evaluation of affective interfaces*. Wolters Kluwer.
17. Juhlin, O. & Weilenmann, A. (2008). Hunting for Fun: Solitude and Attentiveness in Collaboration. *Proceedings of CSCW*.
18. Korhonen, H., Montola, M., & Arrusvuori, J. (2009). Understanding playful user experience through digital games. *Proceedings of DPPI*.
19. Ljungblad, S., Skog, T. & Holmquist, L.E. (2006) From Usable to Enjoyable Information Displays, In Blythe, M et al. *Funology: From Usability to Enjoyment*, Springer.
20. Mentis, H.M., Reddy, M., & Rosson, M. (2010). Invisible Emotion: Information and Interaction in an Emergency Room. *Proceedings of CSCW*.
21. Nardi, B. A. (2005). Beyond bandwidth: Dimensions of connection in interpersonal communication. *Proceedings of CSCW*, 14(2), 91-130.
22. Putnam, L. L., & Mumby, D. K. (1993). Organizations, emotion and the myth of rationality. In S. Fineman (Ed.), *Emotion in organizations* (pp. 36-57). Sage.
23. Schatzki, T., Knorr-Cetina, K.D., & Savigny, E.V. (2001). *The Practice Turn in Contemporary Theory*. Routledge: London.
24. Sengers, P. & W. Gaver (2006). Staying Open to interpretation: Engaging multiple meanings in design and evaluation. *Proceedings of DIS*.
25. Stebbins, R.A. (1997). Casual leisure: A conceptual statement. *Leisure Studies*, 16(1), 17-25.

## AUTHOR BIOGRAPHIES

**Henriette Cramer** is a postdoctoral fellow at SICS and the Mobile Life Centre researching mobile interaction. Her PhD-research at the University of Amsterdam revolved around interaction with user-adaptive, autonomous systems and (social) robots, focusing on users' trust in systems that to a certain extent make their own decisions. She is currently exploring social and affective reactions to mobile technology and 'things' mediating social contact.

**Helena Mentis** is a postdoctoral fellow at SICS and the Mobile Life Centre conducting research on affective technologies. Broadly, she is interested in the field of computer-supported cooperative work. A recurring theme in her work over the last few years can be loosely described as the study of socio-affective behaviors in critical collaborative environments. Her PhD at Pennsylvania State University investigated the expression of emotion in the coordination of emergency room work.

**Ylva Fernaeus** is a researcher at SICS and the Mobile Life Centre and works in the areas of human-machine interaction, with special interest in casual, mobile and physical interaction. She received her PhD degree from the department of Computer and Systems Sciences at Stockholm University in 2007. Her thesis explored creative, bodily and social forms of computer programming with children. Currently, she explores novel robot technologies and is especially interested in different ways for people to control, interact with, and program their own technology.