

## **Workshop Submission CHI 2009**

### **Defining the Role of HCI in the Challenges of Sustainability**

I am a strong believer that sustainability is fundamentally an interaction design problem. As an executive creative director at frog design, I lead a team of approximately 20 interaction designers working on a wide variety of products, services and applications. What guides our work is a strong understanding to user motivations, needs and behavior. We create experiences for clients is a diverse range of industries from telecommunications to consumer electronics to healthcare. Throughout we focus on deriving a strong model of user need and behavior within a specific context. It is that model that drives our design decisions. As will with any interaction design practice, our process is highly collaborative and iterative. I also teach interaction design at NYU and SVA (starting in 2010) as part of my practice.

Over the course of this work I have developed some strong beliefs regarding the role of emotion in interaction design. The success of my professional work is dependent on my ability to create experiences that engage and build trust. And I have found that it takes a strong sense of aesthetics, and an understanding of the interplay between the visible elements of a product and it deeper behavior that provide the appeal necessary to build these connections.

My interest stems from an overall disappointment with the current thinking within the interaction design community around sustainability. I specifically see too much faith in logical solutions, when we as interaction designers are realizing more and more the power of emotion and social systems in motivating behavior change. Designers seem to have an inexhaustible faith in the ability of numbers and graphs to motivate typical consumers into reflecting on the impact of their behavior. We are awash in examples of this thinking, many beautiful. I am hoping that this work session will reflect a richer underlying model of human emotion and behavior. It is also my hope that we will look beyond simple purchase decisions to examine patterns of use and behavior.

As a participant in the workshop I believe that I can contribute sophisticated thinking and real world experience in the following areas:

#### **1. Systems Thinking:**

Sustainability requires that we look at products and service in the context of the larger systems that are shaping and motivating behavior. These systems can provide a great deal of leverage in reinforcing changed in behavior, and providing rewards and feedback. I recently worked on a project for one of the major manufacturers of green cleaning products. We specifically looked at how we could extend the value of their products as a system by considering all of the components related home cleaning and health. Our goal was to tie single product use into larger systems with added benefits, to go from cleaning to air quality. By creating secondary products and services highlight air quality we can reinforce

the positive effects of their clean products. We also looked at secondary services and educational material as a way of strengthening the relationship with the customers and appealing to the emotional desire for family health and well being.

I have also looked at systems in the industrial context working with symbol technologies on innovative ways to incorporate lightweight technologies like e-ink that reduce power consumption and waste in retail environments. Here too the system had to focus on the emotional needs of the retail staff in developing solution that we would use and maintain. Too often these systems and unnecessary complications and are thus not accepted and underutilized. We looked to turn these displays as well as smaller, wearable badges, into something that would create a sense of pride and stronger communication on the retail floor.

## **2. Mobile Technologies**

I have worked on a significant number of mobile applications and services for the US market as well as Europe and Asia. These projects have all involved a significant amount of observational research which has confirmed my deep belief in the power of mobile services, specifically sms, as one of the most powerful tools in motivating sustainable behavior. Most recently I have worked on a project in South Africa, Project Masiluleke (<http://www.poptech.org/project%5Fm/>) that uses mobile message to motivate behavior change around HIV and TB. Mobile phones offer a unique opportunity to provide immediate and consistent feedback in a way that is personal and relevant. Mobile technologies also offer a unique opportunity to track and measure changes in behavior.

I am very eager to bring this knowledge to the workshop and actively participate in shaping new directions for sustainable interaction design. I am particularly interested in looking at how we can establish specific models for determining the effectiveness of different solutions. And create new methods and practices for testing the impact of an approach in the field in terms of immediate and long term usage patterns.

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