

# Project Proposal for Ambient Intelligence

Title: Happy Display ☺

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## Introduction

In the modern society that we live in, disasters happen every month, suicide news appeared in newspaper everyday. Depression becomes a common urban sickness. People seem to feel less joyful as the society becomes more advanced and complicated. Technology brings us convenient but not happiness. We have to be happier. If we're happy, we will work more efficient, we will have a higher emotional quotient, we will probably be more attractive, and we will even live a longer life!

The main intention of this project is to create something that makes you happy. But, what's happiness? How can you switch to the emotional state of being happy? What makes you feel happy? And when do you want to be happy? I will try to think about these questions using my own experiences and brainstorm some thoughts for an ambient system that makes you happy or reminds you of the happiness that you've had.

Money, love, compliment, reputation, all these can make you happy, but they are transient and not something that we can have a machine to manufacture them. So what else can make us happy? I think of memories, like the good memories of when your first baby was born or when you proposed to your wife. If you had a very intriguing chat with a friend in a pub some other night, you would probably still have that pleasurable feeling the next morning because you still remember it. We cannot invent a machine to create those happy things, but we can reproduce them in our mind from our memories to trigger such inner feeling of being happy.

What I want to propose is a device which records good memories, they could be videos and audios, and play them back whenever needed. An ambient or peripheral interface is helpful in this design because it can create a serendipitous encounter of a piece of happy memory by a glance. It is also more natural just like when you think of something happy unexpectedly amidst of your current foreground job. For the following scenario, I will use a clock as the design metaphor for the happy device for two reasons. First, a clock is already a well-recognized ambient device which does not take extra perceptual capacity. Second, time and memory are highly related in terms of categorization and information

retrieval: recorded memories can be assigned to different time slots in the clock and be displayed according to current time.

### **Usage Scenario: an happy clock**

I woke up in a gloomy Monday. Alone in my apartment. Worrying about the presentation that I am going to give later in the day. Want to cook breakfast but find nothing in the fridge. I throw a glance to my wall-mounted LCD clock, it's 10am, I have to be quick, but my mother's photo showing up on the clock at that particular moment attracts my attention. Then I move towards the display, a video plays back the memory of having my mother's breakfast back in my hometown. I feel enlightened and leave my apartment in rush.

My presentation ends up with a great success, I want to record this joyful moment to my clock. I go to an online web interface and speak out my feeling to the web cam, then the clip is saved to the server and pushed to the current time slot for the next retrieval.

### **What's more?**

The above scenario just illustrates the basic record and playback modes of the happy clock, there are more ways to record the happiness. For example, by using a 3G cell phone, happy occurrences in the outdoor can also be recorded directly. There is also an option of recording narrations of happy memories into the clock itself, which simplifies the I/O process. Sometimes, other people's happy experiences can also make us happy. Collective memories of happiness can be gathered in a networked clock, which can be placed in public spaces for sharing happiness.

### **How will it be implemented?**

It will be implemented in a wall-mounted display where a GUI will render the clock and its video clips. Sensors will be installed to detect if there is a person being close to it, which will trigger the video playback according to the current time. The GUI will also be able to record the video if the record mode is selected.

### **Level of completion**

I will finish the GUI with fully functioning record and playback systems. The networked version will be considered but not necessarily be fully implemented.

### **What do I hope to learn?**

I hope to explore and learn about the design issues of an ambient device, especially in the

aspect of changing of context between periphery and center, and the interface design dealing with audio and video information. How do people respond to these pre-recorded happy memories? Will they really be happier after watching the clips? The social dynamics of recording and playing public and private memories are also of my study interests.