

# Community Beat: Revealing the Hidden Rhythms of a Neighbourhood

## **Rowanne Fleck**

UCL Interaction Centre  
University College London  
MPEB 8<sup>th</sup> Floor, Gower Street  
London WC1E 6BT  
r.fleck@ucl.ac.uk

## **Craig Robertson**

Architecture Plus Everything (APE)\*  
and UCL Energy Institute  
University College London  
Central House  
14 Upper Woburn Place  
London, WC1H 0NN  
craig.robertson@ucl.ac.uk

## **Chloe Fleck**

\*Architecture Plus Everything (APE)  
28 Trevelyan Road  
London E15 1SU  
chloefleck@hotmail.com

## **Abstract**

We live our lives in world of hidden rhythms, but many of these rhythms were socially constructed many years ago and may no longer be best serving us. In this paper we present our concept for an interactive public display that aims to make people aware of some of these hidden rhythms and help us question how we make use of our time. We raise a number of design decisions to bring this concept to reality, and a number of research questions arising out of it.

## **Author Keywords**

Life rhythms; reflection; public display; interactive display; crowdsourcing

## **ACM Classification Keywords**

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

## **Introduction**

Routines, rituals, habits, rhythms – they regulate our everyday behaviour and in many ways make it easier for us to function in a complex world. I take exactly the same route to work each day, cross the road at the same set of traffic lights, choose the same side street to walk along. This removes the need for me to think about these things and frees up my time to think about something else as I make my way to work. Sometimes I arrive and can barely remember how I got there. But

---

Copyright is held by the author/owner(s).

CHI'13, April 28 2013, Paris, France.

Workshop on Experiencing Interactivity in Public Spaces (EIPS)

[http://www.cs.tut.fi/ihte/EIPS\\_workshop\\_CHI13/papers.shtml](http://www.cs.tut.fi/ihte/EIPS_workshop_CHI13/papers.shtml)

I worked out this route over a year ago. What if some things have changed? If there is a crossing in a different place, a new coffee shop has opened up on the route or in the summer it is possible to walk across the park that was impassable in the winter when I first started to work out the route? I walked to work with a colleague a couple of weeks ago and was taken her route. I found a crossing that was easier to use and my new walk to work is now slightly altered. In a way it doesn't matter. But how many opportunities in life do we miss out on because we have established a routine which we no longer even notice or question? Scaling up, families, communities, cities, countries all make use of rhythms and rituals – they regulate the whole of our lives, and in the same way I had stopped noticing the way in which I walked to work until taken another way by someone else, many of the rhythms of our society are equally hidden [2]. Most of us go to work at the same time, have lunch around the same time, schedule activities in units of hours and take the weekend off. These things are so natural to us that we only question them when something forces us to work outside of the established rhythms. Of course, our natural biological rhythms (waking with the light and sleeping in the dark hours of the day, the need to eat throughout the day to sustain ourselves etc.) have dictated many of these rhythms – and everyone in society knowing and understanding the rhythms makes it easier for everyone to get along. But it also creates problems: e.g. rush hour, falling asleep in meetings, struggling to work and fit in looking after small children or spending time with family. Perhaps some of these rhythms are out of date too? Things have changed, and we're no longer making the best use of our time given the world we currently live in - a world becoming increasingly busy, where there are more and more constraints on all

sorts of resources including fuel, space, travel etc. And a world in which technology makes it possible to work and live our lives in ways inconceivable even 20 or 30 years ago. If we could learn to see these rhythms we might be able to reflect on and question them, and think about how we might do things differently. There are many ways in which we could use technology to prompt this reflection (see [1]). Recording and re-representing these rhythms could help people look at them in a new light, or from a different perspective, perhaps becoming aware of them for the first time in years. Discussing with others, seeing what others do and sharing our experiences with them can also prompt reflection, raising awareness of what we do and of alternate ways of doing things.

### **Concept**

Our concept is for an interactive community display which allows people to compare the movements around and rhythms of their community to their own. The display would be situated in a public space, somewhere in the heart of the community where people could see it as they wander past everyday, but that allows a few people to gather and spend time looking at it. Various sensors around the community would monitor people's movement through and use of space in various ways (e.g. shop doors or park gates opening, benches sat on, bus stops waited at, library books checked out, cups of coffee sold, busyness of train platforms, traffic flow etc. - perhaps not unlike the city dashboard project [3], and people's paths travelled through the space crowdsourced via their mobile phones - in a manner similar to various exercise apps e.g. Strava [4]). This data would be used to build up a representation of activity in and around the community, and movement through it, at various times of the day.

It might also display some of the facts and figures used to build up the picture (e.g. how many library books checked out, how many coffees sold). Passers by would be able to interact with the display in order to see how activity changes throughout the day, week, month or year. For those choosing to use it, a smartphone app will allow them to see how their own behaviour compares to that of others, and a website might allow people access to some of the numbers which make up the overall picture of activity level.

### **Design Decisions**

At the moment, this really is just a concept, a pie in the sky thought experiment about a community display we would be interested in building. But it is a starting point to our thinking about all the issues involved in turning such a concept into reality. There are many design decisions that would have to be made – at the very broadest level, this includes: where to place such a display, what to measure and record in the community and how to represent it, how do people interact with the system - are they able to interact directly with the public situated display, only online or via a mobile app, or only by affecting the data through their own movements. How do we visualise this data in a way that makes sense to people but does not compromise privacy, in particular how to represent change over time?

### **Research Questions**

Following from this, there are a number of research questions that we might want to ask: what might

revealing these patterns get people to think about, what behaviours might we change, is there any value in this, how do we understand how people have been changed by the display (or if they have)? This list goes on.

### **Conclusion**

In this paper we have suggested the value in providing people with an opportunity to question some of the rhythms of their own lives and of the society around them to consider if there are different ways we could manage our lives. We presented the concept for a public interactive display which shows people the movements around and rhythms of their community in order for them to question them and compare to their own. This display is currently only a concept, and we listed some of the design decisions and research questions we would have to address. We hope our participation in the workshop will be instrumental in moving this concept forward.

### **References**

- [1] Fleck, R., and Fitzpatrick, G. Reflecting on reflection: framing a design landscape. In Proc. OzCHI 2010, ACM (2010)
- [2] Zerubavel, E. Hidden Rhythms: Schedules and Calendars in Social Life. University of California Press, London, (1985).
- [3] <http://citydashboard.org/london/>
- [4] <http://www.strava.com/>