

# Make Me Happy: In Situ Data Collection for Urban Sync

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## ABSTRACT

This paper gives a short overview of *Urban Sync*. The underlying research theme of this project is about the matter of personal interaction and relationship building in urban environments. It starts with a storytelling approach to motivate the research questions and challenges. Furthermore it describes a technical setup to perform in situ ethnographic research by the author to collect multimodal data about the context of the urban environment and the physiological responses of the subject when performing everyday life activities.

## Author Keywords

Affective computing, cultural hacking, urban journeys, urban planning, physiological data, emotions

## ACM Classification Keywords

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

## EXCERPT OF MY DAILY DIARY

„... damn, missed to recharge the iPod! What about the scooter? hopefully working, I am in a rush to our weekly meeting to discuss the work of the research group, although my head is filled with ideas for some urban art projects, anyway I need to be happy first! So, what's missing? Latte + Twitter! My scooter is nice and brings me in 10 minutes from the suburbs to downtown where I head to the one and only coffee shop being located in a traditional cosy building with nice chicks around and a perfect italian coffee machine from the late 60ties. WiFi is free, WiFi is fast. Yes this makes me happy! Checking replies and direct messages at Twitter and wondering why people post so much crap ... on other days when I am alone in a new place, a different urban setting, knowing nobody, like 2 weeks before in Paris, I ended up at McDonalds for free WiFi and I was so damn happy about these silly postings of my „socioborgs“, thats how I call myself and all these nerdy people twittering as hell. Although the music in the coffeeshop is not such bad it could be better by exploring the playlists of all the other people sitting around and doodling their MP3s on shiny iPods or being in isolation behind their earplugs, at least half of them look interesting enough to get rid of my digital chitchat and get into some real conversation, that would make me feel really happy! I wonder if there will be once in a time a happy machine, a personal companion who

knows about emotions, who has been part of my life tracking all my interactions with people and things and places, logging my implicit and explicit reactions and having enough computing power, AI algorithms, connectedness to other machines, people, cities to resolve from all these constraints to 1 solely thing for me, his master: More Happiness! ...“

## SCIENTIFIC CHALLENGES

As a trained computer scientist and musician, holding a Ph.D in music information retrieval and AI, my research has been shifting from pure number crunching to ethnographic techno-sociological prototyping. The underlying theme gets meanwhile a little bit clearer than it was in the beginning. Any kind of interaction (man-man, man- mobile device, machine-machine, etc.) which is taking place in my personal habits when encountering cities, people and technical artefacts seems to resonate with my most inner search for balance and happiness. There have been devices (e.g. the iPod touch for doing dualmode twittering over WiFi and listening to my favorite music) and even applications (our prototype *Bluetuna* for sharing music taste) that made me feel better, but the same way a lot of the things around have been time-consuming, frustrating and separating. Ending up in 2008 indeed urban places act like the main mediator for my personal well-being being connected to people and devices on different ranges. The mixture of instantaneous, near-field, city-wide and global interaction has to be in perfect balance to optimize my daily journeys thru the city and life.

Therefore the research rationale I will follow has been blueprinted partially as a short term scientific mission entitled *Urban Sync*. It will investigate the matter of happiness and how it relates to aesthetics vs. efficiency, the hybrid of tradition and technology and the complexity of mediating layers of diverse granularity and scale in urban environments. As a starting point I will conduct an ethnographic study by gathering realtime audio, physiological data, and network activities in the GHz range in different european capitals. By using a portable GPS datalogger the data will be underpinned by an according spatial representation. The setting of the research is difficult since the well-known problems of in situ data collections which are aimed at studying emotional responses and

human behaviour will encounter. The technical setup consists of a portable digital audio recording device, a prototypical smartband which records heart rate and skin conductance and a scanner to track activities in the HF range. In combination with the time-stamped GPS data complete trails of my personal experiences will be recorded and stored for subsequent post-processing. This latter stage will seek for correlates between the individual data channels by using machine learning techniques and information visualization techniques.

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#### **REFERENCES**

1. C. Nold (2004). <http://www.biomapping.net/>.
2. L. Gaye and Mazé, Ramia, Holmquist, Lars Erik (2003). Sonic City: The Urban Environment as a Musical Interface. NIME2003.
3. A. Bassoli (2005). Design For Everyday Urban Life: Conceptualising the socio-technical challenges of ubiquitous computing, Ph.D proposal, Personal communication.
4. A. Bassoli and Brewer, Johanna, Martin, Karen, Dourish, Paul, Mainwaring, Scott (2007). Underground Aesthetics: Rethinking Urban Computing, IEEE Urban Computing.
5. S. Baumann and Bassoli, Arianna, Jung, Björn, Wisniowski, Martin (2007). BluetunA: let your neighbor know what music you like, CHI2007 Interactivity Track, San Jose, USA.
6. A. Dunne and Raby, Fiona (2001). Design Noir: The Secret Life of Electronic Objects. <http://www.dunneandraby.co.uk..>
7. I.Thomas (2008). Bubbles of Radio, <http://www.nearfield.org/2007/12/fictional-radio-spaces>.
8. S. Baumann (2008). <http://urbansync.wordpress.com>.