

Home Feeling for the Modern Nomad

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ABSTRACT

This paper describes a research project, Mobile Home Center, about home and mobility in relation to transnational HCI. The project concerns design for mobile life and it is an investigation, through user studies and prototypes, of how to support the act of home making away from the primary home. We bring in the perspective that transnational HCI is not only concerning individuals distributed across borders, but also the reality of individuals who live their lives as a modern nomad in multiple countries. We bring in a new perspective of how most people perform *homing tactics* rather than living mobile, place-less and nomadic lifestyles. We furthermore present a number of prototypes that seek to enrich the practices of the modern nomad.

Author Keywords

Design, mobility, tactics, home feeling, user studies, ethnography.

ACM Classification Keywords

H5.m. Information interfaces and presentation

General Terms

Design, Experimentation, Theory

INTRODUCTION

The increasing mobility in the globalized world has led to new lifestyles where travel is an everyday condition for performing a specific job. Many people travel around the world and have several houses or stay at hotels on a frequent basis. We call these people modern nomads. Our approach is based on research by anthropologist Ida Winther which indicates that people make home locally in many places rather than being place-less nomads (1). Instead of looking at home as bound to a specific place, *the* home, she introduces the term “Homing”, that is the action that leads you to a feeling of home in different places. Similar work has been done in this field and Williams et. Al calls this “home as a process”(2). Inspired by this perspective, the challenge is to develop strategies for homing not physically attached to the primary home and

thus provide design solutions that meet the needs of the modern nomad.

The project is divided into three phases:

1. Understanding the existing situation of extreme mobility through user studies and development of a new terminology within the field
2. Prototype development of products and services
3. Evaluating the prototypes in terms of the first findings

USER STUDIES

We started out with anthropological studies of people with several homes. This was done to learn about the experienced long distance commuters and mapping their tactics for home making. The people we have studied perform various tactics as a way for coping with the constant changes that a mobile lifestyle induces. We identified seven homing tactics that were presented at MobileHCI'10 (3). The tactics are:

- *Territorializing* is a way of taking in more/new territory
- *Bubbling* is shutting out context
- *Outboxing* is preparing artifacts for moving
- *Connecting* is staying in touch with extended family
- *Differentiating* is contextualizing the home feeling
- *Doubling* is copying things from the primary home
- *Rhythming* is continuation beyond mobility

Our aim was to learn from the studies and turn the tactics into strategies for design. We do not wish to simplify the tactics by making them into seven categories, but use the richness of the material to understand and explore the tactics and transform them into design for homing.

As a parallel to these studies we also carried out 9 interviews with affluent customers of a high-end A/V company, also being extremely mobile people, but owning several homes. These findings were then juxtaposed with the preliminary studies to inform the designs of various prototypes.

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To specify the tactics in relation to transnational HCI, we can start by illustrating that it is important to look at two different approaches to mobility:

- One is by supporting communicating across borders with people distributed in different countries so they can connect by various means. This is an issue that has been treated by the CSCW community when looking at multinational organizations and distributed work and gaming across borders (4,5,6).
- The other approach is by supporting the mobile lifestyles of people moving around and living their lives in multiple countries, looking at the conditions for nomadic work (7,8) but also the mobile practices of everyday life (2).

Our approach has to be seen in relation to everyday practices in mobile life for the modern nomad, where we have sought to specify the conditions of living a mobile lifestyle and mapped the tactics performed to cope with this. To get a little deeper into the richness of the study, we will try to demonstrate further how we experienced the tactics of the modern nomad and identify the implications for designing for this specific group:

Many of our informants would gather their things in piles and boxes long before a travel, performing the *outboxing* tactic. Some lived out of the suitcase as they traveled so much that they couldn't see the point of unpacking. Numerous try to travel as light as possible and they perform the *doubling* tactic in order to have clothes and other things in different places. It is therefore up to the designers to create things and services that are accessible in the different places without carrying the extra load. A counter tactic to *doubling* is *differentiating* where some people prefer to relate to the specific different places that they are situated. This is a way of bringing in context to roothold yourself rather than *bubbling*, where you let out context and everything that you need is carried with you. Mobile phones and headphones technologically support this tactic to keep the surrounding world away from consciousness.

Most informants had a primary home that they oriented towards (all except a child of divorced parents – she had two homes on an equal level). There were different ways of orienting towards a specific place from live views of camera feeds to the more extreme example of a steward orienting towards the home through a *rythming* tactic, where he would keep his inner body clock on UK time. This is highly relevant in the context of transnational HCI, as it illustrates that there can be a local place that is different from where you are actually situated. This tactic however was not performed by many, whereas most *rythmed* by moving with many routines and repetitions week after week. This way of rythming is also identified in studies of Transnational Migration(2). Other ways of

orienting towards another local was through news and weather forecasts of the specific place.

All of the informants performed *connecting* tactics as they would call their friends and family, but they also connecting more ambiguously through touching pictures of loved ones, bringing gifts and following the news and weather forecasts in places where they had friends and family.

PROTOTYPES

We have developed a series of prototypes and more are under progress. Several of them are about connecting in various ways: Connecting by means of sharing media and communicating, by connecting a person to a place or feeling a physical connection to the remote person while interacting. The first prototype (Figure 1) was about collecting pictures and sending them home to the ones left behind, receiving it on a picture frame where they could then respond by pushing the picture frame. The picture was



Figure 1 HOMEinTOUCH picture frame

then visually supported by context information – a map of where the picture was taken, who took it and the local time it was taken. The prototype is an example of a concept that is designed for transnational use, whereas such information is not very interesting if the person sending the picture is in the same location as you. This was presented at European Conference on Ambient Intelligence (9).

The prototype was tested in a context of long distance travel from Denmark to the Philippines, which caused some trouble for uploading pictures from distance. Designing for a transnational context could perhaps have helped prevent these issues.

Another prototype is HomeAwareness which is an artifact for connecting to a specific place, for instance a second home.



Figure 2 HomeAwareness

The HomeAwareness prototype reflects the light intensity, the temperature and the sound from the remote place. This is designed as a reaction to the finding that several of the nomads we studied connected to a place – not just other people. The prototype was presented at DIS'2010 (10)

We are currently working on a prototype about connecting by means of sharing music experiences with focus on the negotiation about control of the experience, level of connectedness and communication between the two places. The development is done in a very iterative process as the prototype is being tested by the developers and users outside the project, it is then in constant change both in the details of the software and UIs but also in the physical construction and setups by findings and creative workshops with users. An international test is in the pipeline, so bringing in a transnational consideration is highly relevant.

THE WORKSHOP

We have not looked much into the technical realities of working across borders though this is a constraint for most of our prototypes. The workshop will therefore help us bring these aspects into future designs or reconfigurations of some of the prototypes. We have however looked very much into the practicalities of living a global lifestyle and this is also where our main contribution to the workshop will be. This is done through our findings from user studies and prototype experiences. It is our goal to discuss how to best meet the needs of today's global nomad at the workshop.

REFERENCES

1. Winther, I. W. (2009): *Homing oneself – Home as a practice*. Haecelty papers. Vol. 4 issue 2. Sydney University Press, Australia.
2. Williams, A., Anderson, K., Dourish, P.: *"Anchored mobilities: mobile technology and transnational migration"* DIS'08 Proceedings of the 7th ACM conference on Designing interactive systems
3. Petersen, M.G., Winther, I.W., Lynggaard, A.B. and Krogh, P.G. (2010): *"Tactics for Homing in Mobile Life - A Fieldwalk Study of Extremely Mobile People"* MobileHCI Lisboa, Portugal 2010, ACM digital Library
4. Cummings, J. N., Kiesler, S.(2008): *"Who collaborates successfully?: Prior experience reduces collaboration barriers in distributed interdisciplinary research."* CSCW'08
5. Hustad, E(2004): *"Knowledge networking in global organizations: the transfer of knowledge"*SIGMIS CPR '04
6. Feng, W.C., Feng, W.C.: *"On the geographic distribution of on-line gem servers and players"* Netgames'03
7. Ljungstrand, P., Björk, S.: *"Supporting group relationships in mediated domestic environments"* MindTrek'08
8. Makoto, N., Mark, G: *"Designing for nomadic work"* DIS'08
9. Petersen, M. G., Hansen, A. B., Nielsen, K. R., and Gude, R. (2008) *HOMEinTOUCH Designing two-way Ambient Communication*. European Conference on Ambient Intelligence, 2008, Nürnberg, Springer Verlag.
10. Lynggaard, A.B., Petersen, M.G., Gude, R., Mortensen, M. (2010): *"Home Awareness: connecting people sensuously to places"* DIS'10, Aarhus, Denmark