Living In A Prototype: A Reconfigured Space

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Goal

Investigating complexities and nuances of a case where people imagine, design, and build an environment they live in.
In the context of HCI and IxD

Ubiquitous computing + Smart home + Internet of Things
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Promise of reconfiguring everyday settings through computation
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Ubiquitous computing + Smart home + Internet of Things

Promise of reconfiguring everyday settings through computation

“in order for the IoT to really take off, end-users need to participate in the creation process. They need to have the power and control over the creation and use of applications for smart environments”

(De Roeck et al., 2012)
Related works

Everyday reconfigurations of the home
(Crabtree et al., 2004; Tolmie et al., 2002; Taylor and Swan, 2005; Wakkary and Maestri, 2007)

Creative, tacit, unremarkable, dynamic, heterogeneous
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Creative, tacit, unremarkable, dynamic, heterogeneous

Do-it-yourself reconfigurations of the home
(De Roeck et al., 2012; Tanenbaum et al., 2013; Woo and Lim, 2015)

Active, identity, empowerment, resourcefulness
The van conversion

DIY approach
The van conversion

DIY approach

Complete environment
The van conversion

DIY approach

Complete environment

Over 2 years
The van conversion

DIY approach

Complete environment

Over 2 years

Opens a critical and reflective space to examine further the design of technology in the home
Research questions

RQ1: What can we learn from the evolving relationship between the maker/user and the designed lived in environment?
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RQ2: What critical perspective does the van conversion project offer on the current trajectory of the integration of technology in the home?
Method: Autobiographical Design

“design research drawing on extensive, genuine usage by those creating or building the system” (Neustaedter & Sengers, 2012)
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Complex, long-term, personal situations
Data collection
How to sew cushions for a camper van

Bed, Table, and Benches for camper van - All in one!

Cedar paneling for van interior

Storage platform for the back of your camper van

How to insulate a camper van
Qualities of Living in a Prototype

1. Reciprocal Shaping
2. Intimate Knowledge and Intimate Frustration
3. Renewed Novelty
4. Ownership and Change
5. Care and Trust
6. Growing Uniqueness
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Renewed Novelty
Ownership and Change
Living in

Living in a reconfigured home:
Living in

*Living in* a reconfigured home:

Physical immersion
“Everything can be changed”
Living in

Living in a reconfigured home:

Physical immersion
“Everything can be changed”

Temporality
Luxury of time
Prototype qualities

Manifestations of design ideas
Prototype qualities

Manifestations of design ideas

Sketched + polished things
The invariably unfinished home

New picture of IoT and smart homes

Slow, ongoing, piecemeal, creative, personal
Thank you! Questions?

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Reciprocal shaping
Intimate knowledge and intimate frustration
“...if things are too close together but not attached together, there is so much creaking and rubbing noises when we drive that it can drive us crazy!”
Care and trust
DISCLAIMER: This is the first van conversion we are doing, so this is certainly a process of trial and error! We tried to describe at every step the reasons why we made the choice materials we made, so hopefully you can see that we used common sense to design this process. I am an industrial designer and design researcher and my boyfriend is a landscape architect with some knowledge in wood working. We see this project as an experiment and as a wonderful place to try out some ideas about design, materials and fabrication.
Growing uniqueness
Home Automation

Environment Control

THE CONTROL4 EXPERIENCE