What's invisible technology? No, really.
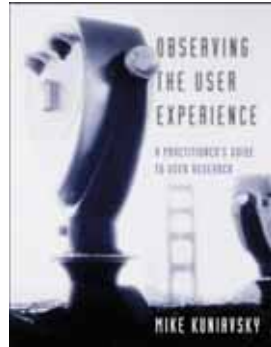Learning about context from furniture, cars, hotrods and casemods

Mike Kuniavsky
Ubicomp, 2005

Intro: who am I?

- I wrote a book   And started a company

I am an independent consultant specializing in user-centered experience design, research and strategy.

I wrote a pragmatic book on user research techniques a couple of years ago and co-founded a San Francisco user experience and information architecture consulting company called Adaptive Path.

I left the Web and application world, and Adaptive Path, a year ago to pursue my interests in the intersection of industrial design and ubiquitous computing.

Visibility is context

- Invisibility is a form of appropriateness

- It is highly contextual
  - What constitutes invisibility
  - What is important to be invisible

- We can learn from technology design history and current technology usage

- Let's not reinvent the wheel
  - Existing situated technologies: furniture and cars
  - Modification cultures: people technologies making technologies more and less visible all the time

- Understanding why and how these designs work or don't work can help us understand how to make situated computing appropriately invisible

Invisibility is highly contextual and what constitutes the invisible depends on what people are looking for.. We can understand where the boundaries of that invisibility lie by looking at the products of long industrial design processes and and by looking at modification cultures, which are a kind of DIY industrial design.

Invisibility is a form of appropriateness

1. Loto wooden platform bed with a headboard lighting system
2. Delta hotels

Invisibility is highly contextual

What constitutes invisibility

What is important to be invisible

Airports, one of the most technologically neutral spaces are putting rocking chairs and real art, having realized that people don't want all their spaces looking like operating rooms. The spaces are actually more invisible if there is non-sterile decoration.

Photos © Daniel Rompe and Kyle Chambers (from Flickr)

Two existing situated technologies

- Furniture
- Cars

Products of industrial design, which aims to modify technology so it's socially, culturally and personally appropriate…so that it's visible or invisible in just the right ways.

Learning from furniture

- Furniture is ambient
- Furniture is pervasive
- Furniture is ubiquitous

Furniture design is all contextual appropriateness

Furniture design has a refined sense of appropriate context

Two Duncan Phyfe chairs from the early 19th century

Notice how the addition or subtraction of arms changes the implication of the role. There's a reason why the one with arms is called a captain's chair.

Learning from from cars

1939 Ford Coupe Hotrod

2001 Chrysler PT Cruiser

Cars are anything but invisible. They exist as much to communicate something about the driver as to provide affordances. There is lots going on here: formal design learning from modification culture, habituation to novelty (the PT Cruiser Is a lot more invisible today than when it first appeared), and people expressing themselves through their choice of the designs they surround themselves with.

Learning from modification cultures

Lowrider
"Must Kill Teddy Bears" casemod by Sheldog 23

Modification cultures

People communicate their values through the way they modify their technology. The things they say are often similar, despite differences in technology. That shows some underlying unity in attitude.
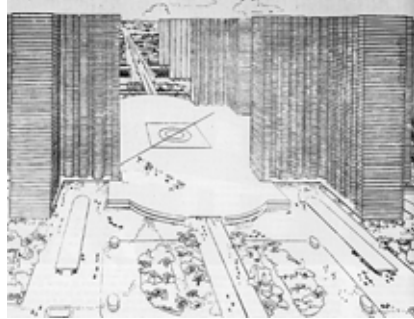
Modification cultures

Small changes serve to make things less visible by making them more personalized, or--paradoxically--more visible.

From Flickr

Modification cultures

Case by Eugene Sargent

Phone bling

The DIY changes of today become the formal design elements of tomorrow.

Invisibility, revisited

Understanding socially appropriate relationships to technology is important to making it valuable, or else we get the problems of high Modernism: the glorious visions produced rather uncomfortable results. What was supposed to be unremarkable (a machine for living) becomes rather remarkable in its failure (as evidenced by how people aggressively move away from the products of that design philosophy when they have the chance). What's unremarkable is highly context-dependent.

Le Corbusier: "Contemporary City for 3 million inhabitants," 1922

East Berlin

Thanks!

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