OZCHI 2000

ID Studio Lab

R s rch

E u a io

Neglected Aspects of HCI
Fun, Beauty & Bodily Interaction

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Respect

We have come to accept a standard of respect in human-machine interaction which is very different from that in human-human interaction.

Why?

The user seeks a positive experience.

But what is the role of the designer in this?

The designer…

- creates a context for experience allowing for enjoyment with all the senses
- makes functions accessible whilst allowing for interaction in a beautiful way
- concentrates on aesthetics of interaction

We do not plead…

- for ease of use, but for surprising, seductive, smart, rewarding, tempting, even moody products that are exhilirating in use
- against technical design, but for diversity

How can this be done?

Take respect for man as a whole as starting point for design

Wholly trinity of interaction

- perceptual-motor skills — level of doing
- cognitive skills — level of knowing
- emotional skills — level of feeling

However, HCI turned cognitive Why?

- No electronic counterpart to our mechanical world-view
- What happens inside electronic products is intangible

Consequence for design

- Products have become intelligent, but intelligence has no form
- Design turned to intelligent part of human, i.e., cognition
- Results in manuals and ordered buttons
- Final goal is speech interface

We all have senses and bodies

with which we can respond to what our environment affords (Gibson)

So why not turn to perceptual-motor skills and make interfaces more tangible?

And as we all have emotions...

Why not make interaction more fun and beautiful?

How?

Back to physical interaction, i.e., handling objects instead of icons on a screen

09.00 - 09.30	General approach
09.30 - 09.45	Introduction of theme
09.45 - 10.10	Ten sloganesque points
10.10 - 10.30	Overview of Design Methods
10.30 - 11.00	Coffee Break
11.00 - 12.30	Design Method I: exercise & presentation
12.30 - 13.30	Lunch Break
13.30 - 15.00	Design Method II: exercise
15.00 - 15.30	Tea Break
15.30 - 17.00	Design Method II: exercise & presentation Discussion

TimeTable

Try to remember...

how your **alarm clock** woke you up this morning.

Different situations, like...

Getting up to catch an early ride to the airport.

Waking up for a relaxed weekend activity.

Different situations, like...

The alarm clock as an example

functional: It does wake you up!

but...

non-adaptive:

It always behaves the same, no matter what the situation is.

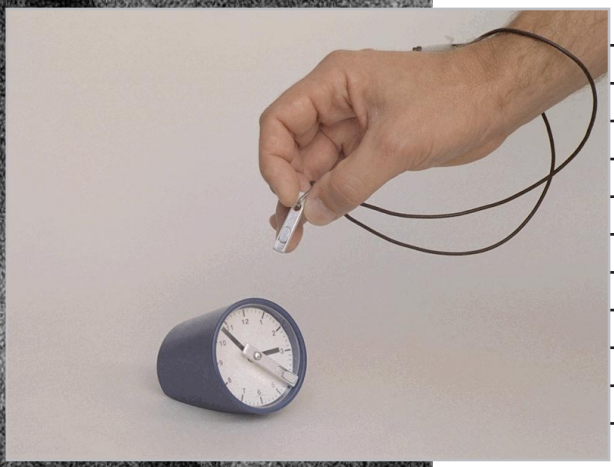
No respect for the **user's context**

Sloganesque

points of attention

Don't think products think experiences

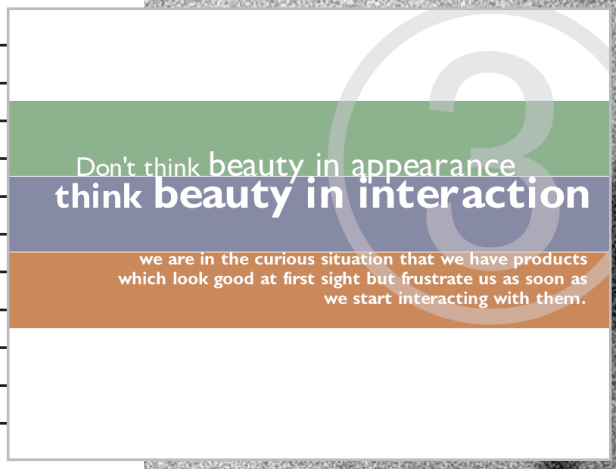
Users are not interested in products
they are in search of challenging experiences



Don't think ease of use think enjoyment of the experience

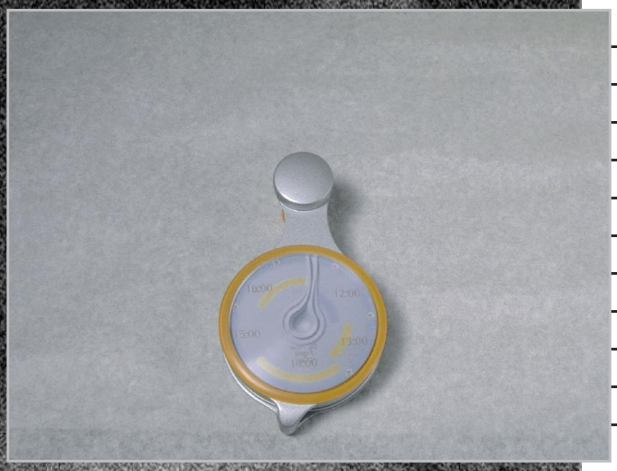
the user may choose to work with a product despite it being difficult to use, because it is challenging, seductive, playful, surprising, memorable, or rewarding.

2
ink ease of use
k enjoyment of the experience


3
Don't think beauty in appearance
think beauty in interaction
we are in the curious situation that we have products which look good at first sight but frustrate us as soon as we start interacting with them.

3

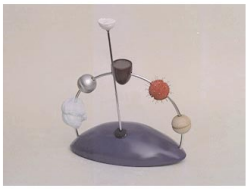
Appointment Manager
design: Joep Frens



4

Don't think labels
think **expressiveness and identity**

Formgiving can express what purpose a control or product serves.



Don't think buttons think rich actions

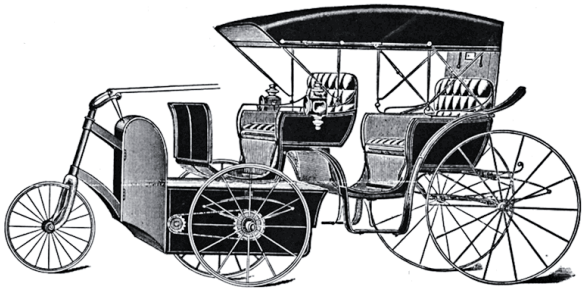
5

By increasing the richness of actions, controls cannot only be visually differentiated but also motorically.

6

Metaphor sucks

Products need not rely on a single consistent metaphor to be clear in use.



"It is not until the metaphor dies that a product gets meaning for itself."
Bill Gaver

"By their very nature, analogies are only representative models and often suffer from being inaccurate or incomplete."
Peter Small

"Magic and paranormal phenomena could be a fruitful place to look for new metaphors."
Dag Svanaes & Bill Verplank

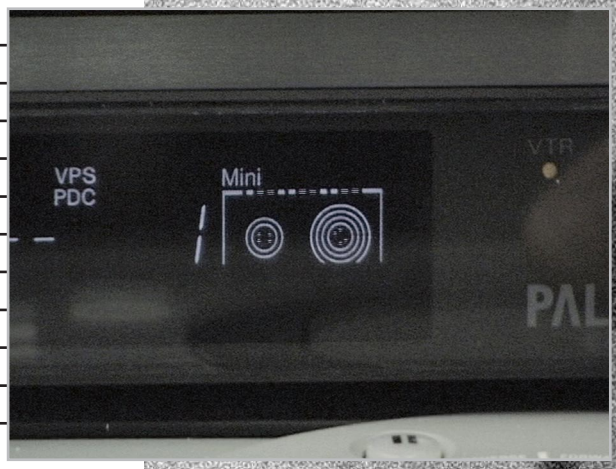
7

Don't hide, don't represent

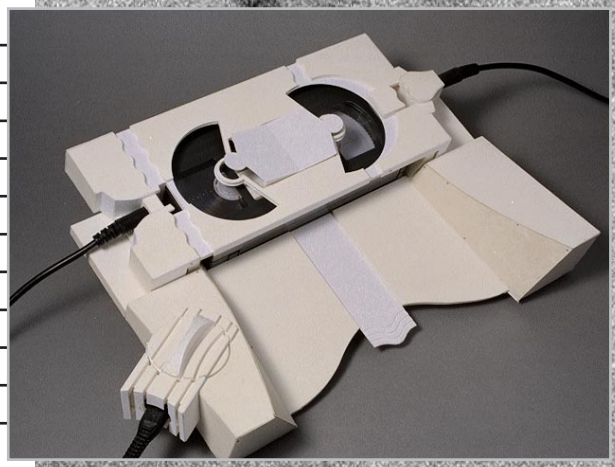
Show

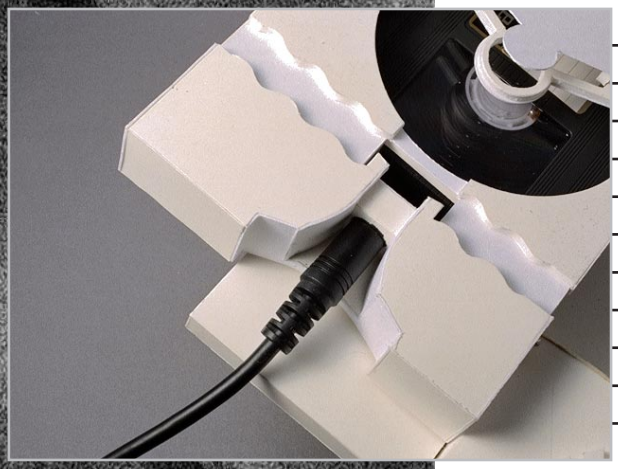
informative physical components are often hidden and inferior representations are shown instead.

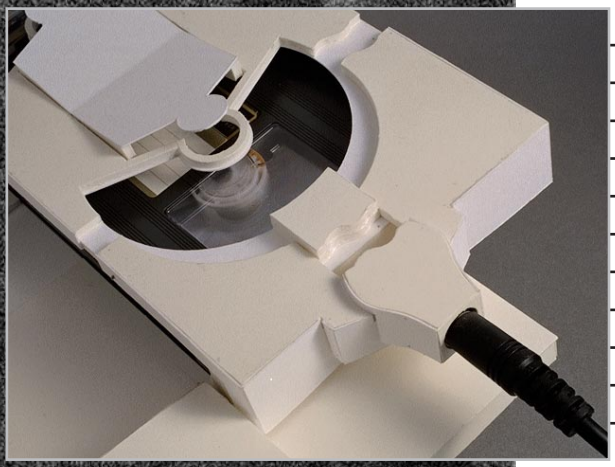
EJECT
SONY

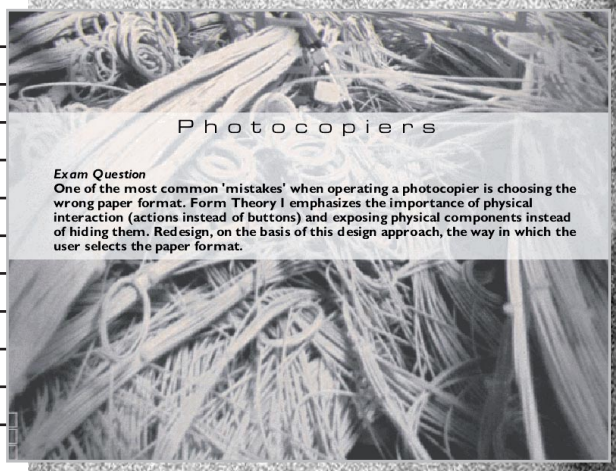

VPS
PDC
Mini
VTR
PAL

Video Deck Concept



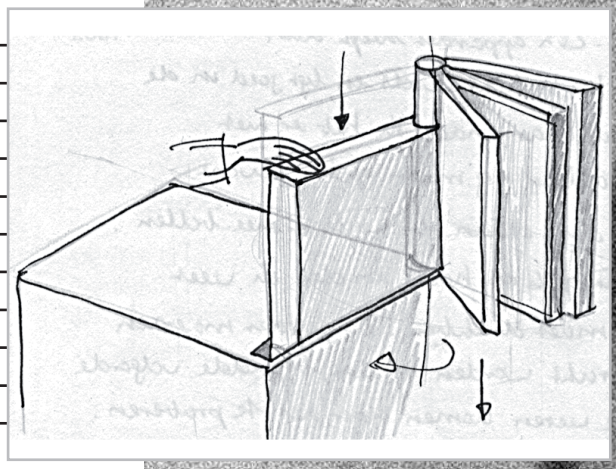


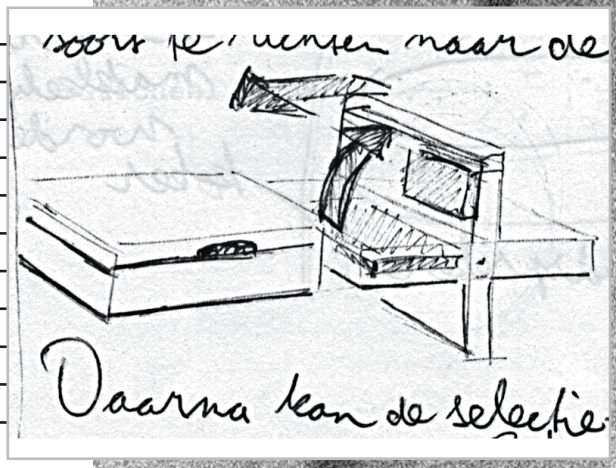


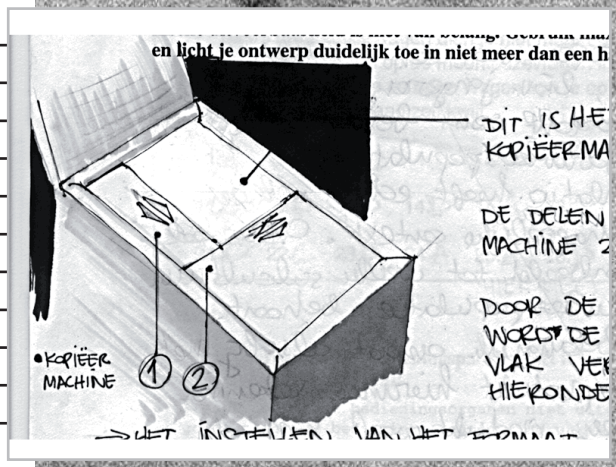


Photocopiers

Exam Question
One of the most common 'mistakes' when operating a photocopier is choosing the wrong paper format. Form Theory I emphasizes the importance of physical interaction (actions instead of buttons) and exposing physical components instead of hiding them. Redesign, on the basis of this design approach, the way in which the user selects the paper format.



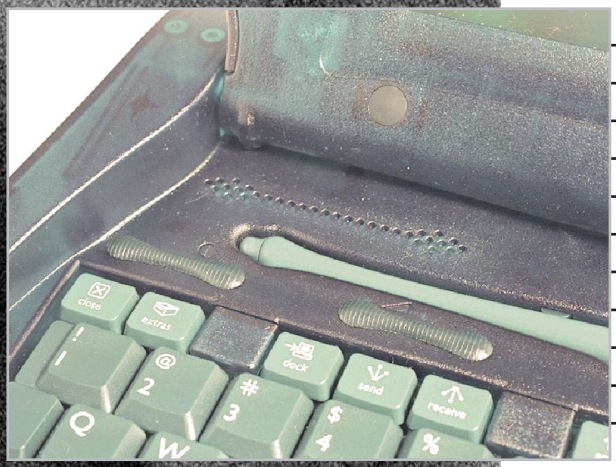




8

Don't think affordances, think temptation

the current approach to affordances emphasizes structural aspects and neglects affective aspects



9

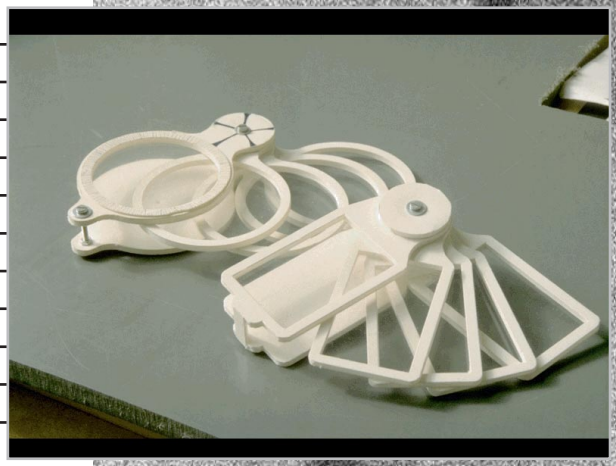
Hit me, touch me and I know how you feel

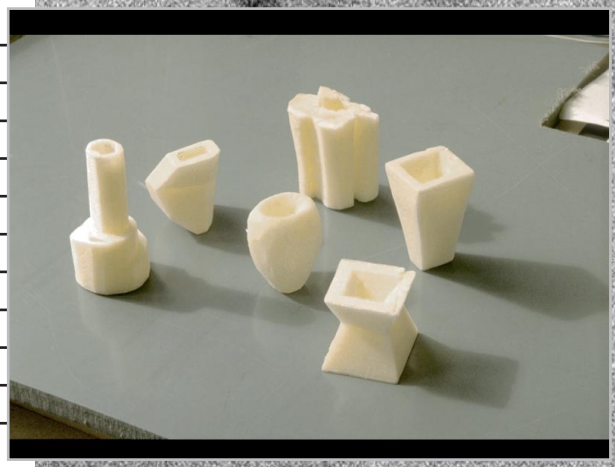
emotions need not be detected by purely physiological means, as we express our emotions through our behaviour and interaction with the world

10

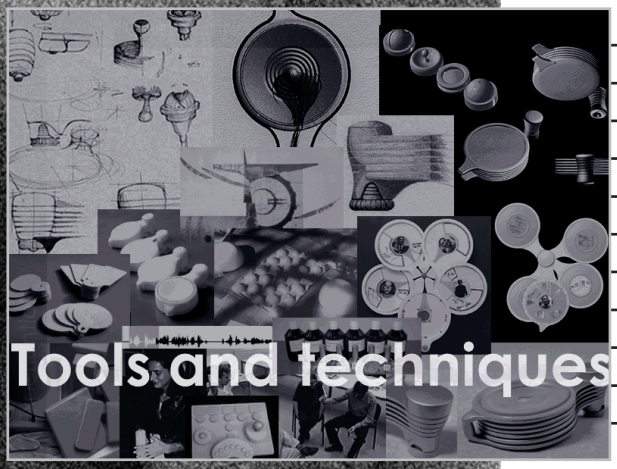
Don't think thinking
just do doing

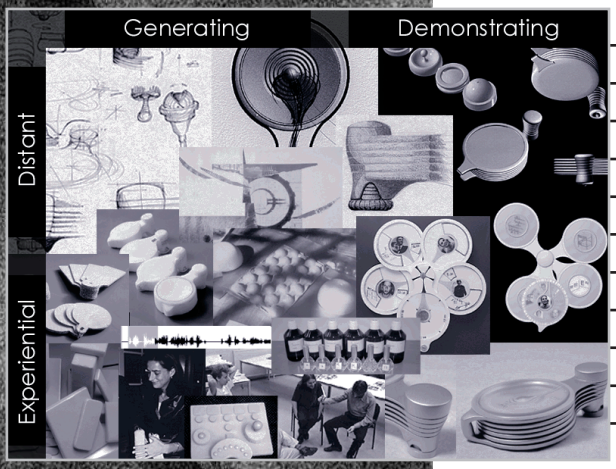
In the design of the physical,
knowledge cannot replace skills





Methods





	Generating	Demonstrating
Distant	*Tools and techniques to support the generation of ideas by stimulating the designer's* ***creativity*** *and* ***imagination.***	*Tools and techniques to support the communication and demonstration of ideas in order to* ***evaluate*** *and* ***discuss*** *them.*
Experiential		

Generating | Demonstrating

Distant

With a distant technique a designer can visualise a product, but not use or test it; he can only imagine that he is using it. It is almost as if he is ***telling the product story****.*

Experiential

An experiential technique allows the designer to ***experience the product story*** *as the main character.*

Generating | Demonstrating

Distant

Experiential

Drawings

Drawings

- speed
- interactive imagery
- expressive wealth

Generating | Demonstrating

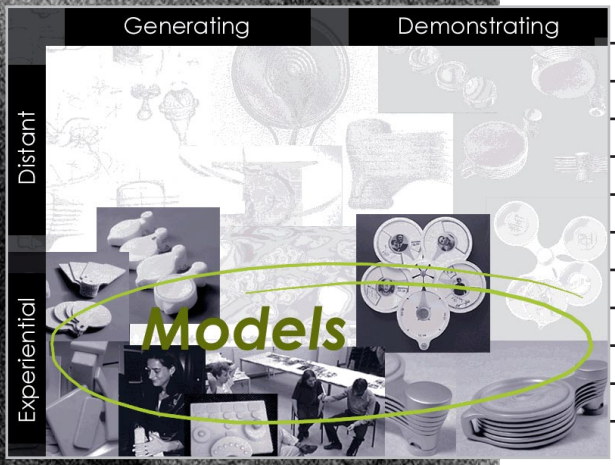
Distant

Experiential

Collages

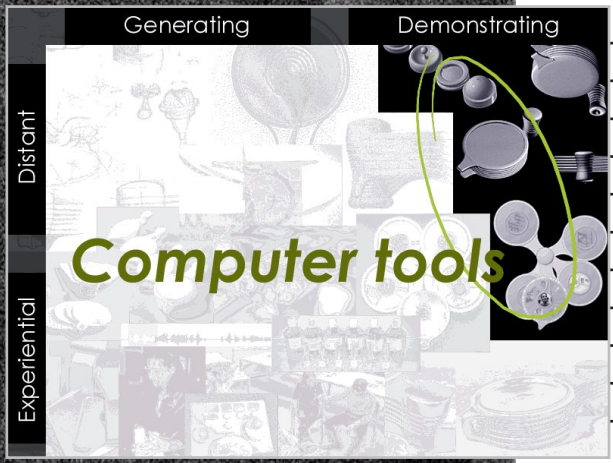
Collages

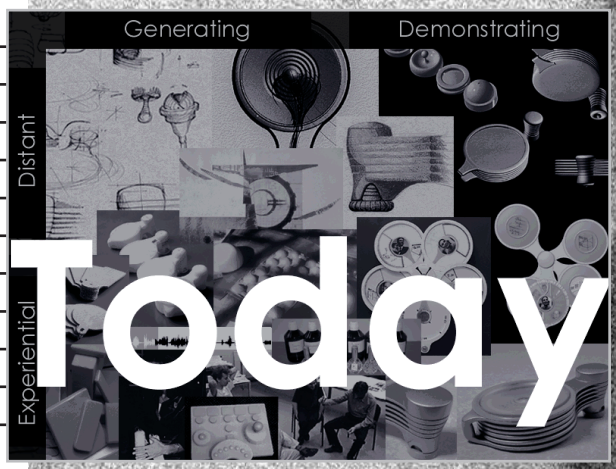
- rich atmosphere
- enhance creativity



- explore / test interaction
- context of use
- richness senses

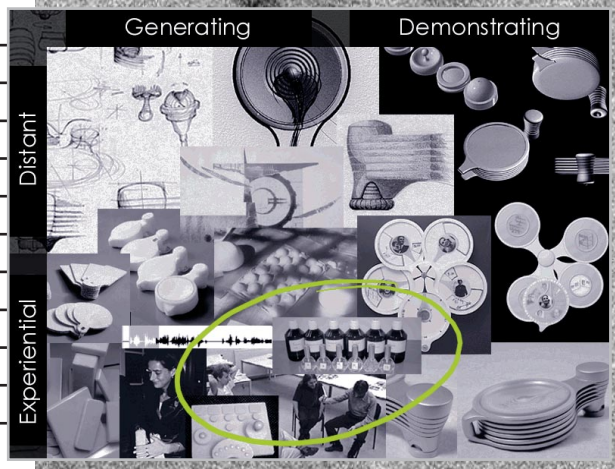
Models




Generating
Demonstrating
Distant
Experiential
Today

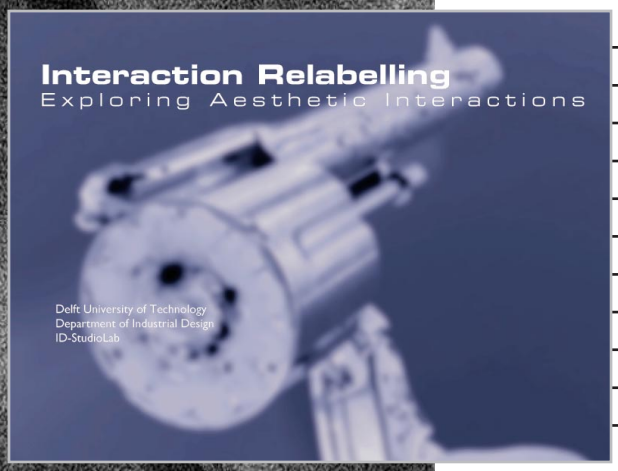
Context for waking up

Aesthetic
interaction


Generating
Demonstrating
Distant
Experiential

Generating
Demonstrating
Distant
Experiential
1
interaction relabelling

Generating
Demonstrating
Distant
Experiential
2
Low fidelity models


Interaction Relabelling
Exploring Aesthetic Interactions
Delft University of Technology
Department of Industrial Design
ID-StudioLab

aesthetics
interaction
appearance
ease of use

aesthetics of interaction

appearance interaction role

What is it?

Participants are asked to consider an existing product, and, pretending that it is the product to be designed, to tell and act out how it works.

Gun example

- appointments mapped to bullets
- gun as display device

Objectives

- part with prototypical interaction
- rich action
- explore role

Method characteristics

- hands-on nature, different ideas

Method characteristics

- hands-on nature, different ideas
- choice of object gives interaction possibilities

Method characteristics

- hands-on nature, different ideas
- choice of object gives interaction possibilities
- connotations, think about role

Points of Attention

- group exercise
- act out (rather than think through)

Alarm Clock Function Set

If the object given were your alarm clock...
...how would you set the wake up time?
...how would it wake you up?
...how would you turn the alarm off?

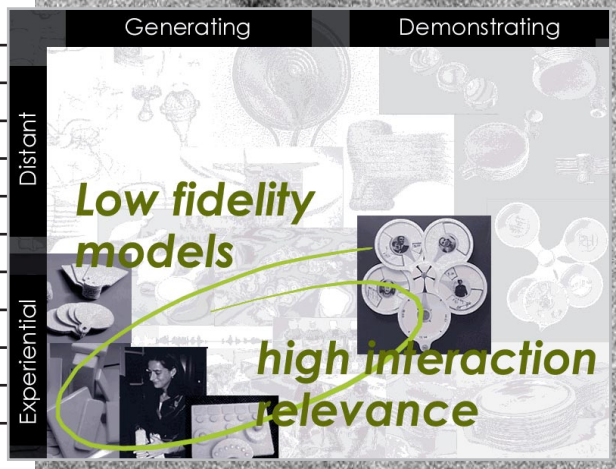
How would you let 'this' alarm clock know that...
...it is really important that you get up? (urgency)
...you're really tired? (mood)
...it made the wrong decision? (learning)

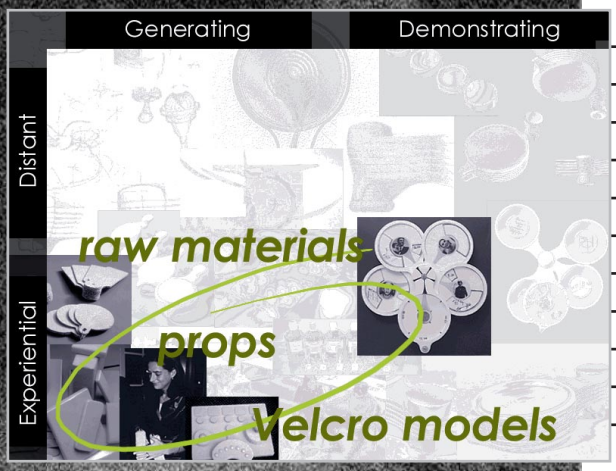
How would you get feedback about these aspects?

Criteria

Does the action...
- express its purpose?
- differentiate itself from other actions?
- offer feedback?
- express the same as the feedback?
- fit the importance of the function?
- fit the nature of the variable?

and...
- is it beautiful, exciting or fun?



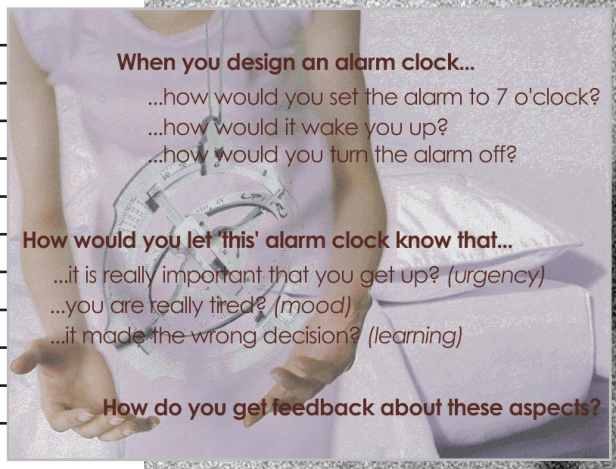

Generating
Demonstrating
Distant
Experiential
raw materials
props
Velcro models

props
adjust, add to
and combine

Velcro models
(SonicRim)
attach and assemble

raw materials
foamboard,
cardboard,
paper,
textile,
wire,
straws,
split pins,
rubber bands,
...
Today

Build & fake
scenarios
Wizard of Oz
oral sounds


When you design an alarm clock...
...how would you set the alarm to 7 o'clock?
...how would it wake you up?
...how would you turn the alarm off?
How would you let 'this' alarm clock know that...
...it is really important that you get up? (urgency)
...you are really tired? (mood)
...it made the wrong decision? (learning)
How do you get feedback about these aspects?

Engaging experience
all skills
tempt
Beauty of interaction
all senses
show
story
expressiveness & identity
context of use
Do doing

Group presentations of
alarm clock designs
16:00

Why this tutorial?

Conscious of...

- complexity of HCI
  respect for man as a whole
- implications for design
- methods other than logical flow-chart approach

Why this tutorial?

Conscious of framework...

- research through design
- logical rules of electronics are not the starting point

Conclusion

Respect the three levels:

Knowing, Doing, Feeling