

“The Grid”

- Meaningful interaction

Agenda

- Zoom in on the elements of interaction
 - Theory on use-oriented qualities

Demonstrate how:

- Meaning is created in the system

Approach

I will try not to get into too deep water:

- By discussing theories against each other
- By talking about conflicts in design fields

Instead, I will be focusing on:

- Theory related to my angle on the project
- Me as a thoughtful interaction designer

An overview

1. Finding a problem
2. Getting the right design
3. Getting the design right
 - Elements of interaction
4. Communicating

Use-oriented qualities

A way of breaking the interaction into pieces

Löwgren & Stolterman (2007)

Use qualities of 'The Grid'

- Level of transparency
- Degree of autonomy and control
- Connectedness
- Playability

- The dynamic gestalt

Level of transparency

Mediation qualities

- Ability to uncover layers of functionality
 - Steep learning curve (solved by instructions or observation)
- *Black box* and *glass box* as extremes
 - Figuring out the logic of the system (rules)

Degree of autonomy and control

The immediate perception and handling of the system

- Initiative
 - The system is automated to surprise
 - The system can be controlled by the user
 - Choice
- Responsibility
 - The users feel responsible for their embodiment in the floor

Connectedness

- Social action space
 - The metro has potential for social actions
- Digital artifacts as a tool for communication
 - Connection between people (eye-contact or mental)
 - Connection to the space

Playability

Intrinsic motivation

- Curiosity: Figuring out what is happening with the lines
- Challenge: Learning to control the lines
- Control: Being able to control the line in some degree
- Complexity: Requires reasoning
- Surprise: You don't know where the line will go

The dynamic gestalt

- Emerges in the interaction over time
- Holistic property
- More than the sum of its parts

Example

- Intimate interaction

Demonstration of
the creation of meaning

The creation of meaning

- Through the experience
- Meaning is created in the interaction
- Physical objects becomes carriers of meaning
 - Inherent feedback (unity of location and time)
 - Feed-forward (predict outcome)

The creation of meaning

direct approach

action

▼

(perceived) affordances

▼

feed-forward/feedback

▼

tangible

example

stepping into the metro

▼

bodily options

▼

light feedback is given
moving light as feed-forward

▼

experienced meaning

Main point

By discussing use qualities in relation to a tangible approach, I have demonstrated, that the system creates meaning through experience.

NEW

0
lines

2
1

1
line

STAY
on 1 line

0

2

2
line

1
0

if two people is
STAYING
a connection is made

if one person
STEP OF

both people are
"SAFE"
for the rest of the trip



TIME:

5 - x sec + 2 sec + 0 - x sec + (y meter distance = x sec)

POSSIBILITY OF INTERACTION:

← CHOICE OF ACTION →

POSSIBILITY OF INTIMACY:

← POSSIBLE MOMENT OF EYE-CONTACT →

Interactivity

The dynamic aspect of interaction

Lim, Y., Lee, S., Kim, D. (2011)

Interactivity

- Visible material qualities (parts of the interface)
 - Offers input/output
 - Shapeable
- Invisible qualities of interactivity (input-output cycles)
 - Experience and function
 - Contingent

Example

- Visible: Look and feel
- Invisible: Functionality and perception of feedback

The creation of meaning

semantic approach

cognition/language

▼

semantics/semiotics

▼

icons/metaphor

▼

knowable

direct approach

action

▼

affordances

▼

feed-forward/feedback

▼

tangible