# "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

### 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

V

(perceived) affordances

V

feed-forward/feedback

V

tangible

#### example

stepping into the metro

V

bodily options

V

light feedback is given moving light as feed-forward

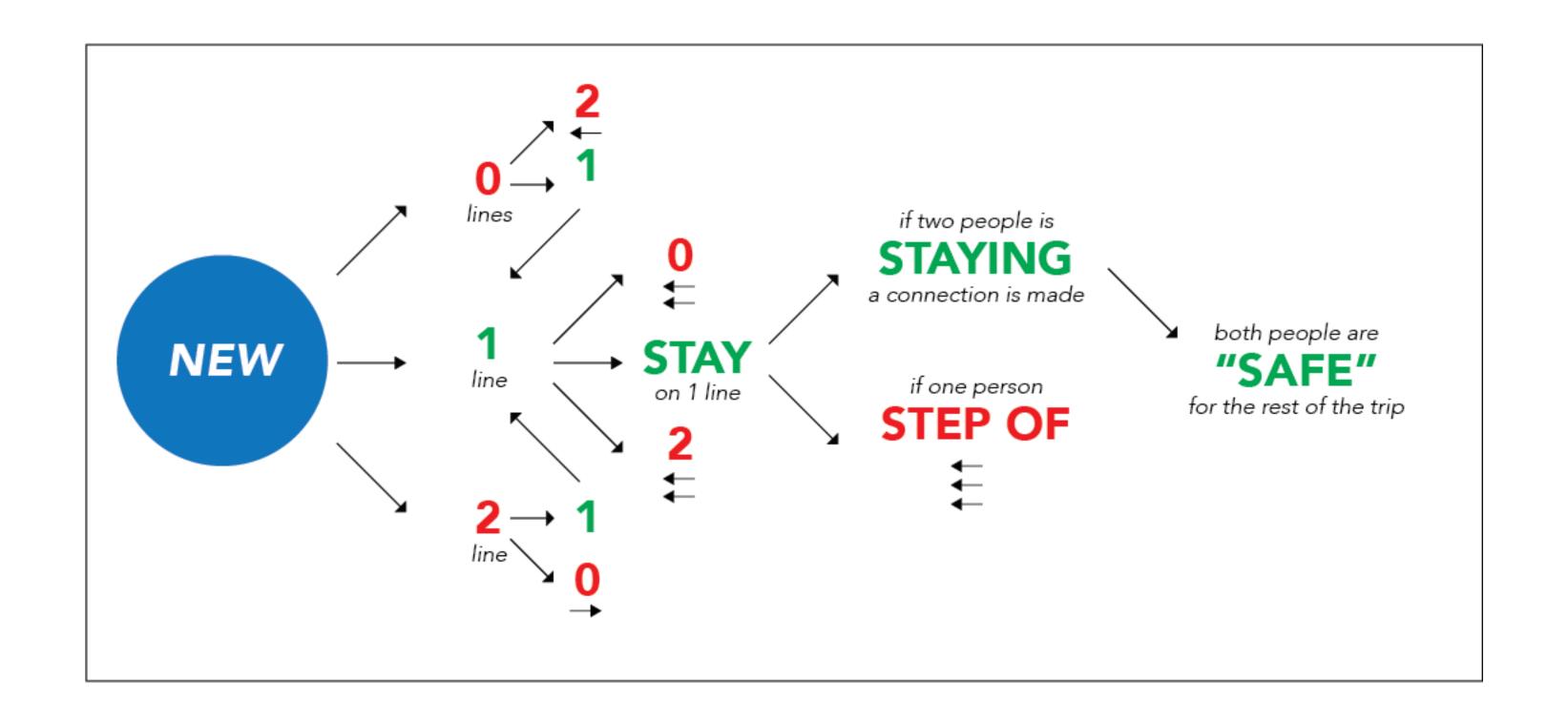
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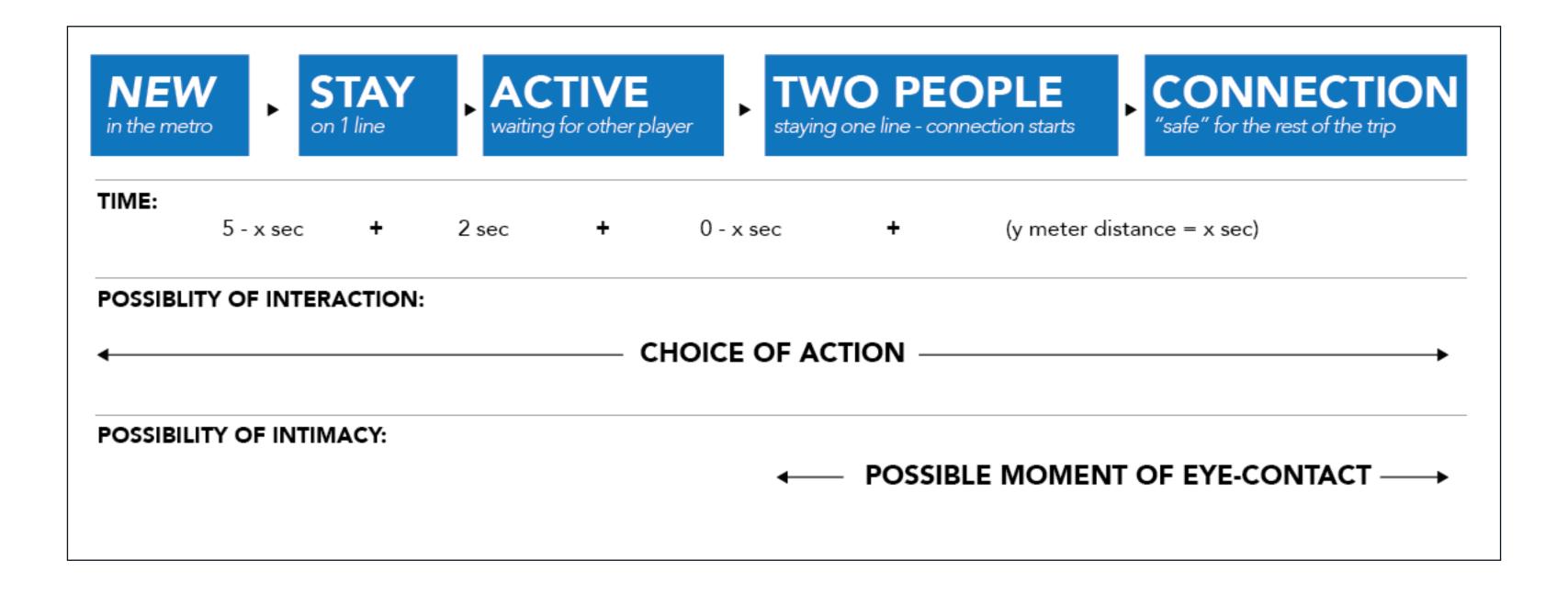
experienced meaning

Djajadiningrat, T., Overbeeke, K. and Wensveen, S. (2002)

### Main point

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





# Interactivity

The dynamic aspect of interaction

### 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

V

semantics/semiotics

V

icons/metaphor

V

knowable

direct approach

action

V

affordances

V

feed-forward/feedback

V

tangible

Djajadiningrat, T., Overbeeke, K. and Wensveen, S. (2002)