

INTERACTION DESIGN

= *users + IT-interfaces + behaviors*

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...and who am I?

Sus Lundgren

- *PhD in Interaction Design*
- *Manager for Interaction Design & Technologies*
- *GUI-design background*

My research

- *MobileTouch: social software*
- *Gameplay Design*
- *Design Methodology, especially targeted towards UX*



Today

What is Interaction Design

Examples of artifacts

What the interaction designer does

Ongoing research at Chalmers GU

Interaction Design & Technologies master programme

Work

What is interaction design?

“Interaction Design concerns the interaction between people and products in which *information technology is a central component.*”

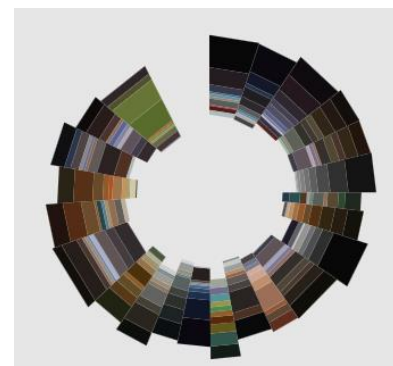
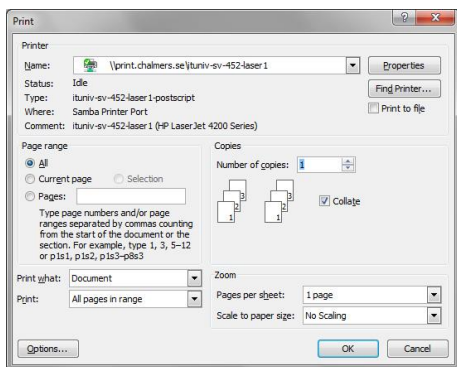
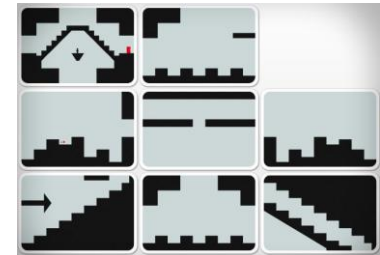
”Interaction design is about **designing behaviors** – of products, users and systems”



Interaction design artifacts

Any product with some built in "intelligence" requires interaction design

- Software, like programmes, smart phone apps, online applications
- Consumer products like robotic toys, cameras, GPSes, smart phones, "smart things" in general



What we do?

Pre-analysis: who, when where, why?

User experience considerations

Ideation

Interaction design

Enabling interaction

Collecting user data

→ Multidisciplinary: there's room for everyone!

Context

User(s)

*Interface
Behaviors*

Code layers

Database

Hardware

Interaction design at Chalmers/GU

12 senior researchers

9 PhD-students

5 research areas

- *Mobile Touch*
- *Gameplay design*
- *Automotive*
- *Interaction Design and Children*
- *Crisis Management*
- *t2iLab – Tabletop interaction, information visualization*



Mobile Touch

Bursting the Mobile Bubble

- *Use phones and tablets as mediators of communication, not focus*

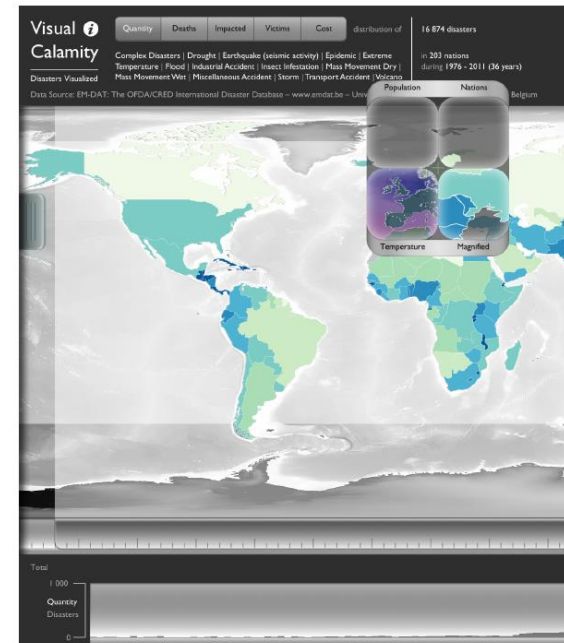


Digitalisering för framtidens skola

- *Teaching tools for understanding others*

Visual Calamity

- *Exploring visualization- and interaction techniques for tablets*



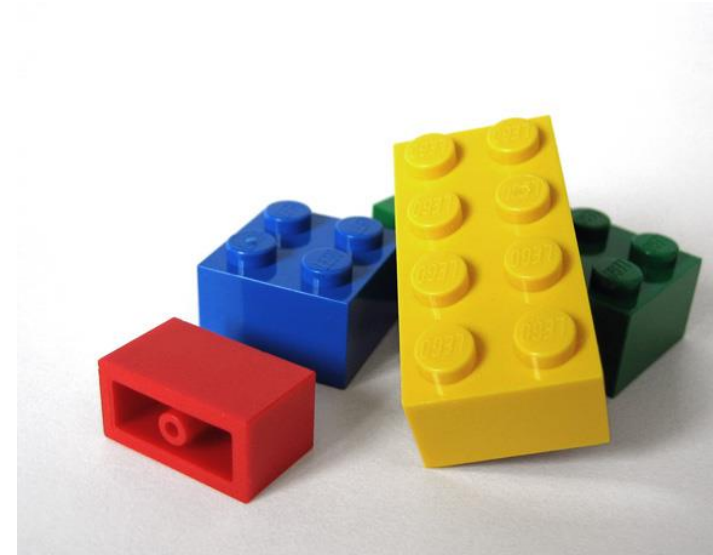
Gameplay Design

Innovative take on gameplay design

- *Tisch – supporting Tabletop Roleplaying*
- *Settlers of Catan on Phone & Tablet*
- *Serious games and Design Games*

Gameplay Design Patterns

- *Staffan Björk*



Automotive

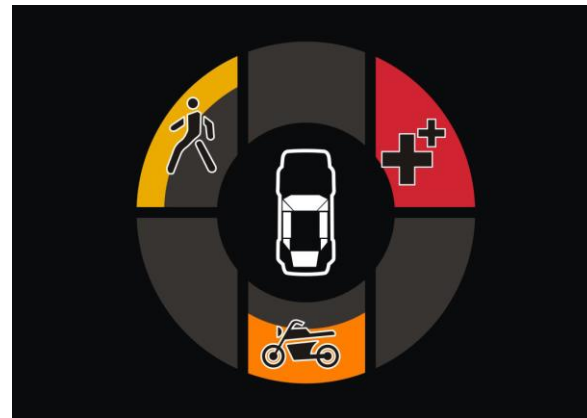
Cooperation with Volvo

Pre-crash-warning in cars

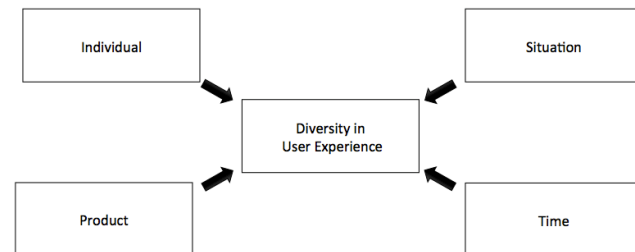
- *Audio*
- *Visual*
- *Cultural differences*

Designing User Experiences in cars

- *Design methods*



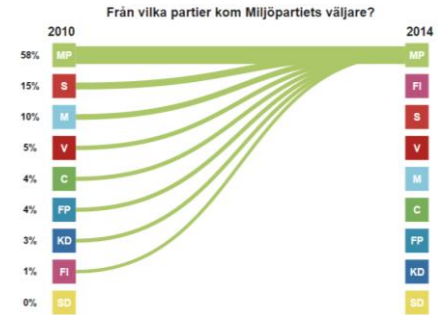
Analysis	Synthesis	Evaluation
<i>Defining the problem space Requirements Collection</i>	<i>Idea generation Prototyping</i>	<i>Evaluation against requirements Selection of final concept</i>
Need Dimension Use		
<i>The need dimensions <u>focus the design</u> team towards important areas. The need dimensions <u>suggest user research methods</u> that are most suitable.</i>	<i>Requirements from the dimensions can focus the ideas towards targeted areas. Methods such as Skewing can use the dimensions to generate concepts that correspond to specific dimensions.</i>	<i>Requirements from the dimensions focus the evaluation towards areas of importance as they were identified during the analysis phase.</i>
Example Methods		
Semi-structured Interview Survey Repertory Grid Technique	Future Workshop Skewing properties MDA	Self-Assessment Manikin Likert Survey Checklists



...and more

Information Visualization

- *Architecture, medicine, transportation*



Touch and tabletop interaction

- *Haptic feedback, wearables, robotics*
- *Rufus – support for runners*



Interaction Design and Children

- *Designing apps for mentally disabled children, Photo diary*

Crisis Management

Interaction Design & Technologies

2-year master: mix of engineering and design

- *Ca 55 students/year*
- *Ca 50 % chalmers (IT, D, TD)*
- *Ca 35% international students*
- *Ca 15% “other” Swedish students*

4 core courses (right now) + Thesis

- *Methodology*
- *Prototyping*
- *Graphical Interfaces*
- *Project*



ID&T other courses

- *Computer graphics*
- *Human Centered Design*
- *Tangible interaction*
- *Designing children's technology / Emerging trends...*
- *Mobile & Touch Computing*
- *Information visualization*
- *Game Engine Architecture*
- *Designing User Experiences*
- *Advanced computer graphics*
- *Understanding Users and Use*
- *Gameplay design*

Possible careers

GUI/web designer

GUI/web/app programmer

Social media designer

”Entertainment designer”

”Experience designer” (UX)

Information Visualization expert

HCI or UX professional

Game programmer

Gameplay designer

”interaction designer”

IxD or ID: Interaction Design
UX: User Experience design
HCI: Human Computer Interaction

To prepare for ID&T

7,5 hec programming

7,5 hec Human Computer Interaction

We have two bachelor courses

- *DAT216/TIG109 Design och konstruktion av grafiska gränssnitt, sp3, 1st year*
- *TDA289/TIG095 Human Computer Interaction, sp3, 3rd year*



CHALMERS
UNIVERSITY OF TECHNOLOGY