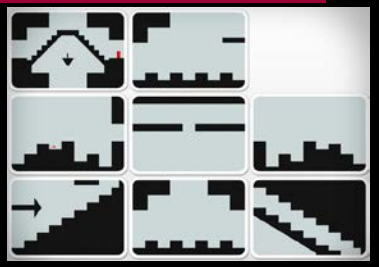
Introduction to

Interaction Design

Marco Fratarcangeli

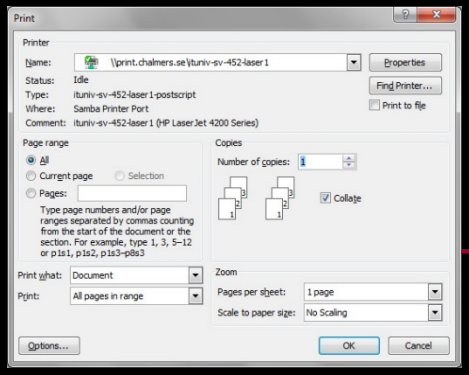
Interaction Design

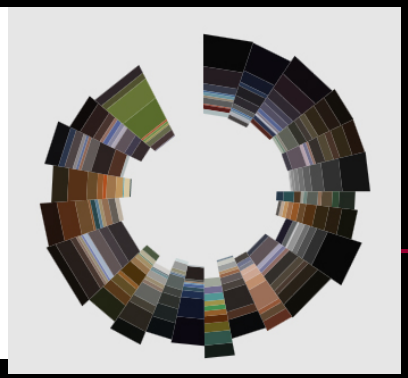


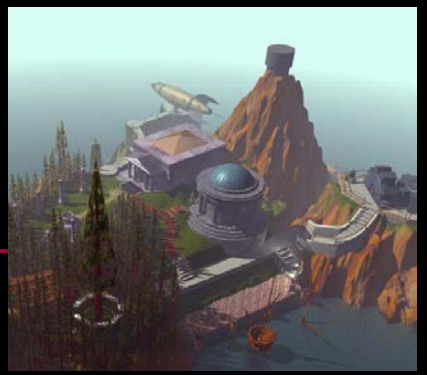
Any product/system/service with some built in ”intelligence” requires interaction design

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

- Second-ordered Design…





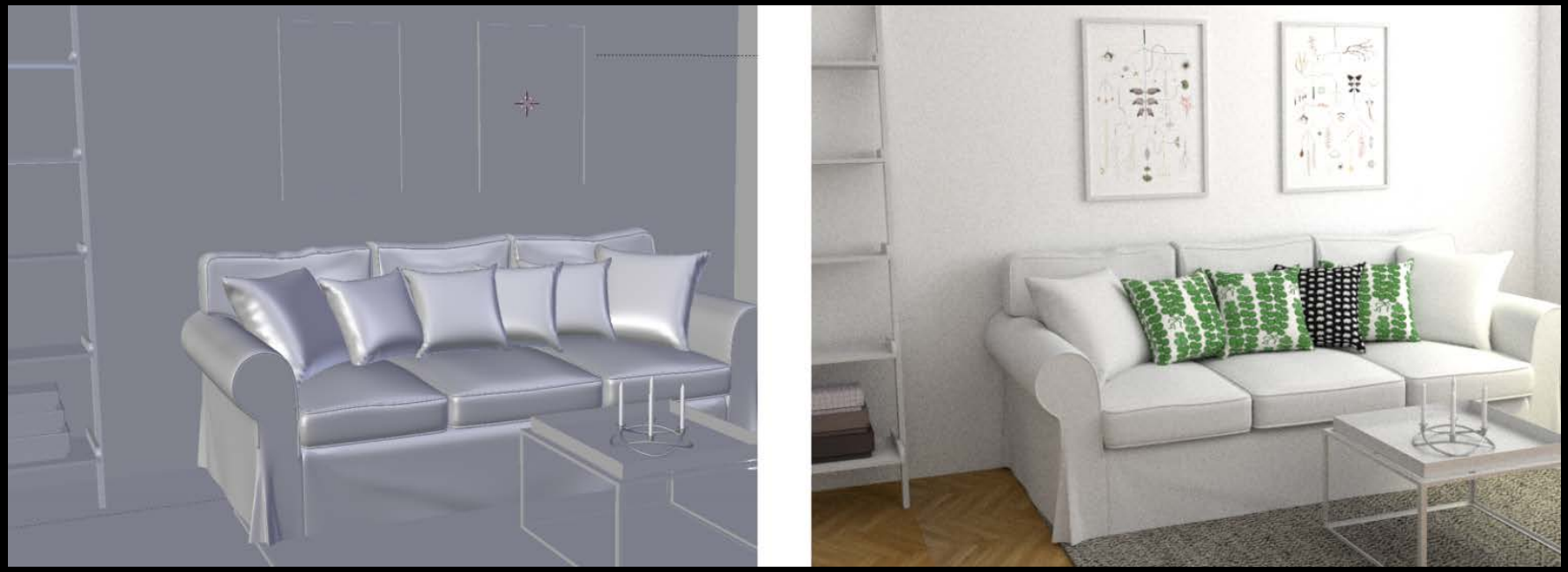


Motivation

IKEA COMMUNICATIONS AB

CHALMERS

Motivation



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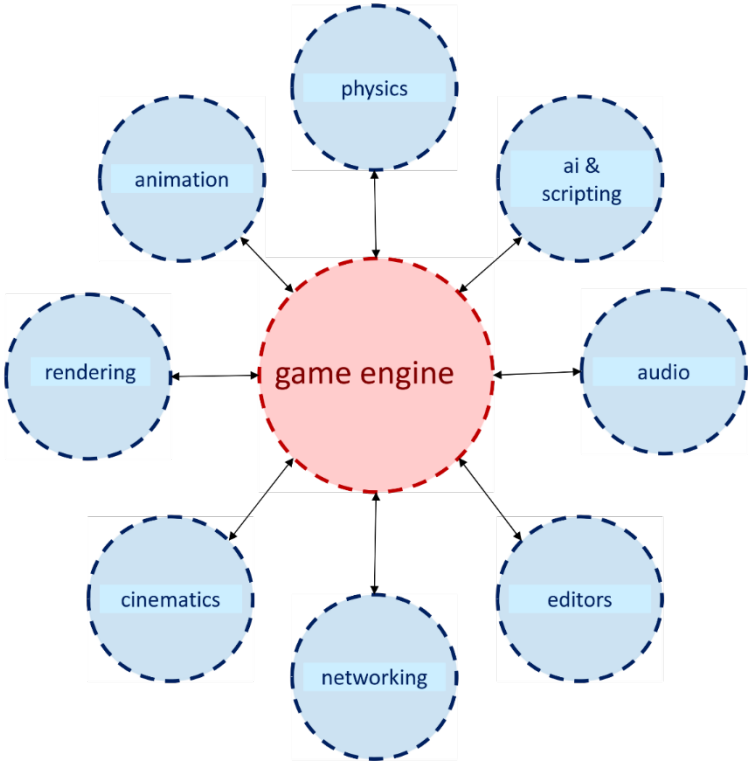
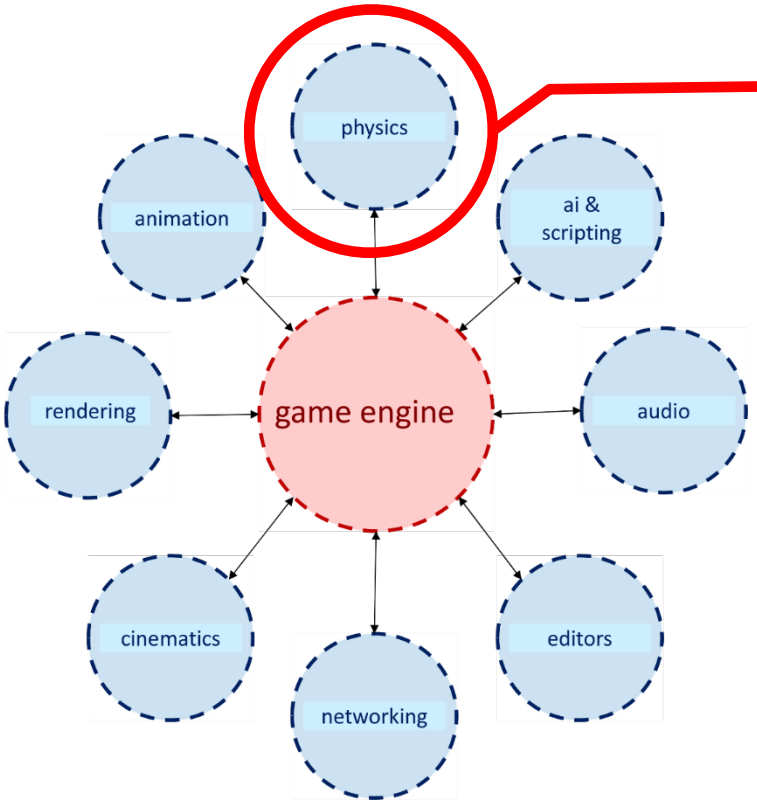

physics
animation
ai &
scripting
rendering
game engine
audio
cinematics
networking
editors

Motivation


physics
animation
ai &
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audio
cinematics
networking
editors
5
ms/frame

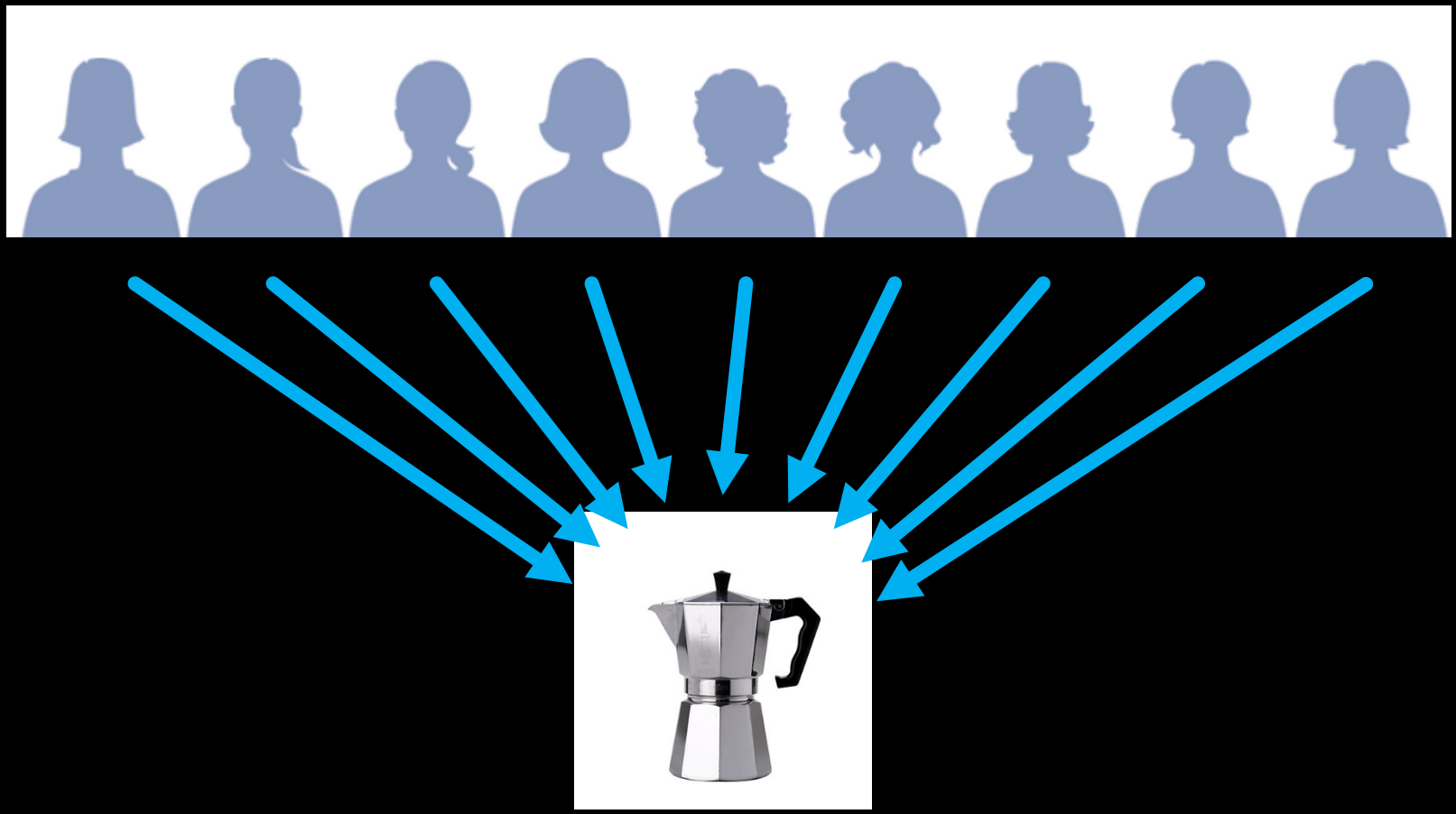
Requirements

Fast

Stable

Reasonable Accuracy

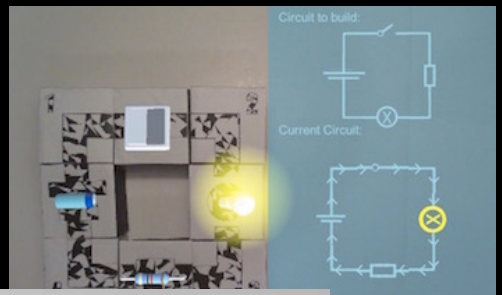
Parallelism is key

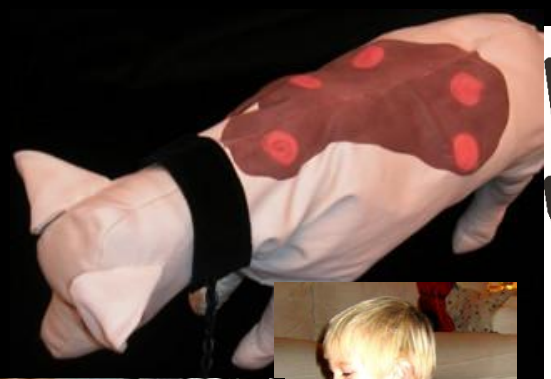


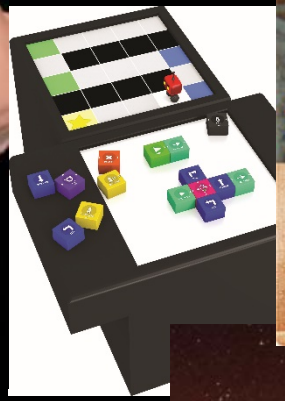
Wicked problems
(Rittel & Webber, 1973)

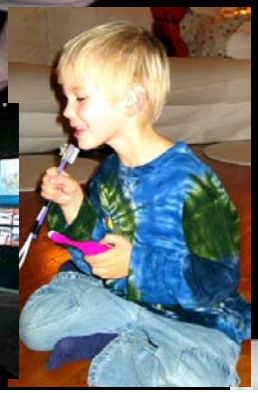
- Characteristics
  - Not understood until after solutions are found
  - Have no stopping rule
  - Solutions are not right or wrong
  - Every problem is essentially novel and unique
  - Every solution is a 'one shot operation'
  - Solutions have no given alternatives
- How to Mitigate Wicked Problems?
  - Language to discuss aspects or parts of the problem
  - Methods

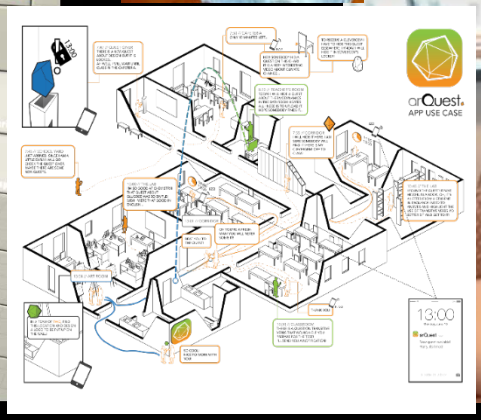
Interaction Design Projects

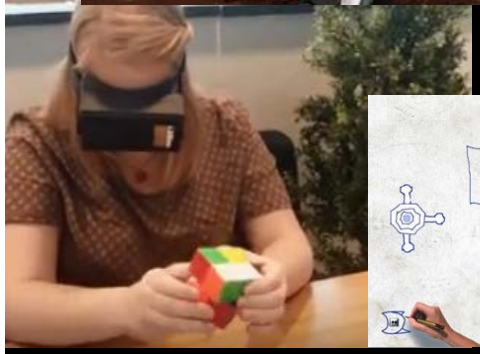


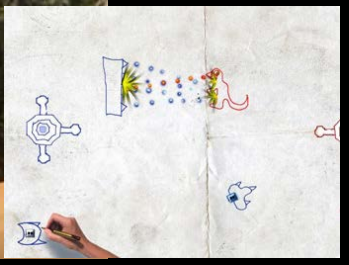












Where do you get jobs after doing this? Well, for example:

- GUI/web/app designer
- GUI/web/app programmer
- Social media designer
- ”Entertainment designer”
- ”Experience designer” (UX)

”interaction designer”

- Information Visualization expert
- HCI professional
- Game programmer
- Gameplay designer

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

Where do you get jobs after doing this? Well, for example:

- Apple
- Avalanche Studies
- eBay
- DICE, Electronic Arts
- EON Reality
- Ericsson
- Forsman & Bodenfors
- FRA
- Ghost Games, Electronic Arts
- Google
- HiQ
- Image & Form AB
- InUse
- King
- Massive Entertainment
- Microsoft
- Paradox Interactive
- Rockstar North
- SAP
- Semcon
- Spotify
- Square Enix Montreal
- TeliaSonera
- TIBCO Spotfire
- Volvo Car Group
- Zoink Games

ID&T: Teaching Approach

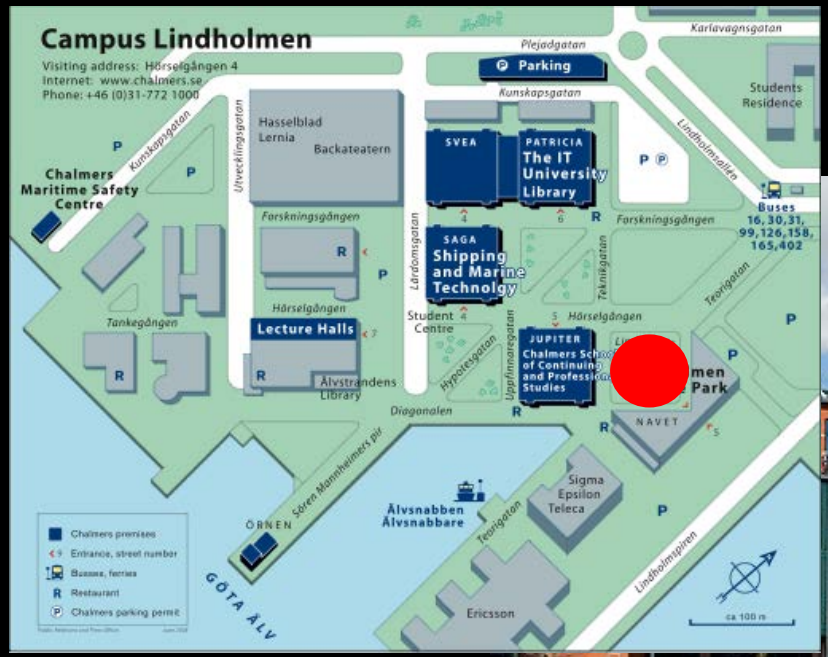
The programme is based on three teaching principles

1) Mixing theory and practice
2) Mixing individual work with group work
3) Mixing defined problems/tasks with open ones

Why is this different

- It’s design, not calculus!
  - You will never know when you are ”done” or ”right”
  - You must consider, and be able to motivate, your design choices
- There is a lot of hands-on work
- We work a lot with crits – giving and getting feedback
  - *Good design is about acknowledging the need for improvement when necessary*

Location: Campus Lindholmen



IDT@Chalmers, 2017-18

Sp1	Sp2	Sp3	Sp4		Sp1	Sp2	Sp3	Sp4
Interaction design methods	Graphical Interfaces	Game Engine Architecture	Understand-ing Users and Use		Interaction design project	Emerging trends and critical topics in interaction design	Thesis	
Prototyping in IxD	Tangible Interaction	Information Visuali-zation	Designing User Experiences		Human-centred design	Gameplay Design		
	Computer graphics*				Mobile Computing	Technologically -Driven Experimental Gameplay Design		
	Design of Children's Technology				Introduction to Game Research			

GDT@GU, 2017-18

Sp1	Sp2	Sp3	Sp4		Sp1	Sp2	Sp3	Sp4
Requirement Engineering	Computer Graphics	Game Engine Architecture	Agile Development Processes		Game Technology project	Technologically -Driven Experimental Gameplay Design	Thesis	
Introduction to Game Research	Gameplay Design	*Real Time Systems, Adv. CG, InfoVis, Machine Learning, Information Theory for Complex Systems, Image Analysis, …*	*Compiler Construction , High Performance Computing, AI, Designing User Experiences, Games and decisions, …*		*Software Quality, Prototyping in IxD, Fluid Mechanics, Mobile Computing, Artificial Neural Networks, Numeric Linear Algebra, Digitala Kulturer , …*	*User Interaction Analytics, Computer Architecture, Graphical Interfaces, Empirical Software Engineering, Simulation of Complex Systems, Perspektiv på delnings- och publiceringskult urer, …*		

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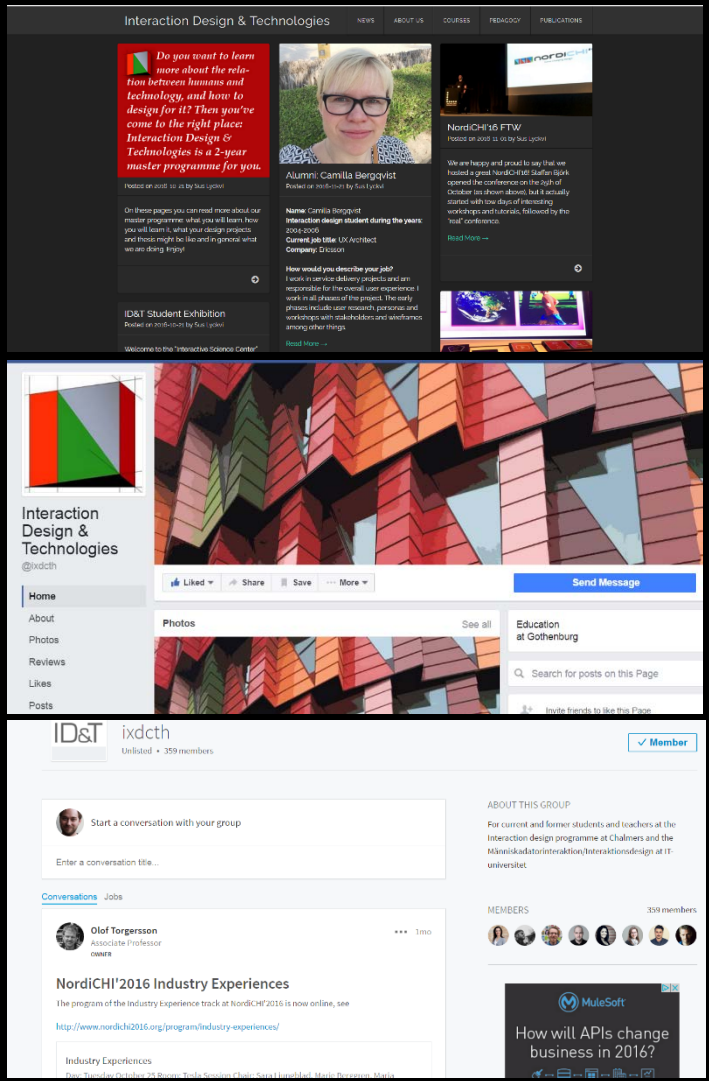

Thank you!

Questions?