

AixD – Advanced interaction design

TDDD53 & 729A88

Mattias Arvola

- What you are expected to know:
 - User research
 - Sketching
 - prototypning
 - Usability testing
 - ... the basics

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- In this course, we work with experiences as design material

- Advanced course
 - Heavier theory
 - More independent
 - Greater responsibility for results
 - Applied

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 - Greater responsibility for results
 - Applied
 - More fun

Today

- Course info
- Groups
- Design briefs
- Intro to the subject

Course info

- Two course codes
 - Advanced interaction design: 729A88, TDDD53
- Different programmes
 - D – MSc in in Computer Science and Engineering
 - IT – MSc in Information Technology
 - U – MSc in Computer Science and Software Engineering
 - MT – MSc in Media Technology and Engineering
 - Master of Social Science with a major in Cognitive Science
 - MDes – MSc with a major in Design

Course info


**LINKÖPINGS
UNIVERSITET**

IDA - Department of Computer and Information Science

A - Z

[Swedish web site](#)

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TDDD53 (2017)

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TDDD53 Advanced Interaction Design

Course information

Aim

The student shall develop advanced knowledge in methods and theory for interaction design. After the course, the student shall be able to:

- Use methods and techniques for concept design and detailed design to define problems and alternative solutions for digital interactive products and services.
- Give an account of system objectives, and analyse design qualities and user experience for digital interactive products and services.
- Define purpose, content, and form for digital interactive products and services.
- Argue for one's interaction design ideas using multimedia, visualisations, or oral and written presentation.
- Summarise and analyse the meaning of concepts from interaction design and use them to analyse design work.

Course content

The course is conducted as a collaboration with industry and focuses on designing interactive experiences. The core of the course is a group project with an external client. A document detailing *all the assignments* can be found [here](#).

During a period of the course you will have access to the [Designstudio](#) and a [design lab](#).

Project hold times

Suggested times to guide the projects:

- 9/9 - decision about three concept ideas to take forward
- 21/9 - the group should have decided on one concept to prototype
- 5/10 - prototyping finished

Lectures

During the course, the following lectures will be given:

- Introduction Tue 29/8 at 8:15-10 in U1 (Johan Blomkvist)
- User Experience Design Tue 5/9 at 8:15-10 in U1 (Johan Blomkvist)
- Methods and creativity in design Tue 12/9 at 8:15-10 in U1 (Johan Blomkvist)
- Ubiquitous computing Wed 20/9 at 10:15-12 in R41 (Magnus Bång, together with TDDD90)
- Prototyping experiences Tue 26/9 at 8:15-10 in TBD (Johan Blomkvist)

Seminars

- Thu 7/9 at 13:15-17
- Thu 21/9 at 13:15-17

Course info

Learning objectives

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Learning objectives

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Course info

- Course literature
 - No book, but perhaps some travel and materials
 - Articles accessible through the library
 - Reference literature for higher grades
 - Further reading for the interested

Course info

- Lokaler
 - Design studio in House B: during certain periods
 - Use LiU card
 - Design lab i Hus E: can be booked

Course info

- Teaching and working methods
 - Lectures
 - Study classes
 - Group work / project
 - Seminars

Course info

- Lectures
 - Inspiration and breadth
 - Loosely couple to the project work
 - Practical tips and trix
 - Can include excercises
 - Is not a substitution for the course literature

Course info

- Lectures
 - UbiComp lecture with TDDD90 – interactive products (DPU)

Course info

- Study classes (lektioner)
 - Thought to be like design studios
 - You work and the supervisor is available for discussion
 - Sometimes an intro by the supervisor
 - Perhaps a special session
- Group work/project (GU)
 - No room booked
- Presentation
 - Visual/oral/written

Course info

- Examination parts
 - Group assignment(G,U)
 - Projekt, grupper om ~4 pers
 - Muntlig och skriftlig redovisning
 - Individual assignment
 - Two seminars (G, U)
 - Critical reflection (3,4,5,U alt. G,VG,U)

Course info

Assignments

- Individual assignments
 - All read three articles, write a summary and tell the other about what they read, and then there is a group discussion. The day after, every person should individually hand in summary of their readings and of the discussion.
 - Seminar 1
 - Domain specific literature and more general generell
 - Seminar 2
 - Articles about prototyping and interactive experiences

Course info

Assignments

- Group assignment
 - Create an interactive experience in collaboration with an external client:
 - generating concepts, designing details, prototyping the experience, before making a final proposal and reporting in a visualization, as well as verbally and in writing
 - Östergötlands museum
 - Flygvapenmuseum

Course info

- Should be an interactive system
 - Installation
 - Multimedia guide
 - Mobile game
 - Web site
 - ...etc.

Course info

- Group assignment
 - Target experiences
 - PLEX

<i>Category</i>		<i>Playful experiences</i>		
<i>Adventure</i>		<u>discovery</u> Finding something new or unknown	<u>exploration</u> Investigating an object or situation	<u>captivation</u> Forgetting one's surroundings
	<i>Caretaking</i>	<u>nurture</u> Taking care of oneself or others	<u>sympathy</u> Sharing emotional feelings	<u>control</u> Dominating, commanding, regulating
<i>Excitement</i>		<u>thrill</u> Excitement derived from risk, danger	<u>subversion</u> Breaking social rules and norms	<u>humor</u> Fun, joy, amusement, jokes, gags
	<i>Excel oneself</i>	<u>suffering</u> Experience of loss, frustration, anger	<u>challenge</u> Testing abilities in a demanding task	<u>completion</u> Finishing a major task, closure
<i>Imagination</i>		<u>expression</u> Manifesting oneself creatively	<u>fantasy</u> An imagined experience	<u>simulation</u> An imitation of everyday life
	<i>Physical</i>	<u>sensation</u> Excitement by stimulating senses	<u>relaxation</u> Relief from bodily or mental work	<u>eroticism</u> A sexually arousing experience
<i>Social</i>		<u>fellowship</u> Friendship, communality or intimacy	<u>submission</u> Being part of a larger structure	<u>competition</u> Contest with oneself or an opponent

(Kaasinen et al., 2015)

Course info

Structure:

Intro 4/9

- Assign a contact person, set up a site visit with the clients (Thursday 6/9 13-17)
 - Intro to the museum
 - Showing the facilities
 - Free exploration and individual idea sketching
- Seminar 1 13/9
- Set up another site visit with the clients during week 38
 - Situated prototypes and exploration of ideas
- Seminar 2 26 + 28/9
- Build prototype during week 40–41, evaluation, polishing and presentation week 42
- Final presentations with invited clients and guests 18/10 (13-17) in S26

Course info

- Milestones
 - Decision about three concepts to continue working on (run it by the client): no later than 17/9!
 - Decision about one design to finalize: no later than 28/9!
 - Prototyping completed: no later than 12/10!

Design briefs

- <https://www.ida.liu.se/~TDDD53/info/courseinfo.en.shtml>

Break

www.liu.se

Subject intro

“Interaction Design refers to the shaping of interactive products and services with a specific focus on their use.” (Löwgren, 2008)

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Subject intro

“We call this domain
“interaction design” because we
are focusing on how human
beings relate to other human
beings through the mediating
influence of products. ”
(Buchanan, 2001, p. 11)

Subject intro

Design

- Exploring possible futures
- Make proposals and assess their consequences (intended impacts and unintended side-effects)
- Models (Swe. gestaltningar) of future solutions in scenarios, sketches and prototypes
- Explore existing situations

Subject intro

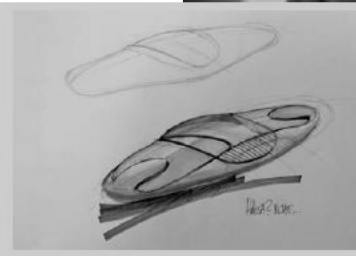
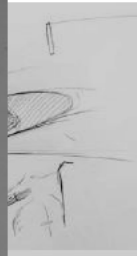
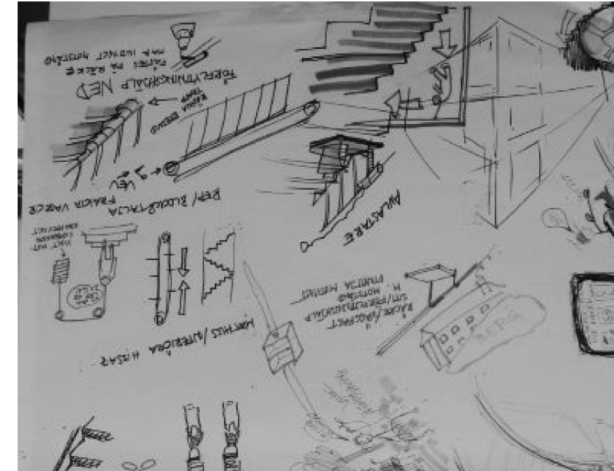
Characteristics of design?

- A certain kind of thinking
- Messy, uncertain, focus on the process, creative
- Historically a focus on design problems
 - Wicked problems (Rittel & Webber, 1973)
 - Problem framing (Schön, 1983; 1987)
- Solutions are not right or wrong

Subject intro

What is characteristic for design?

- Models
- Representation



Subject intro

Models

Faciliates designers' understanding of **possible futures**

- Sketches and prototypes are the most common

Subject intro

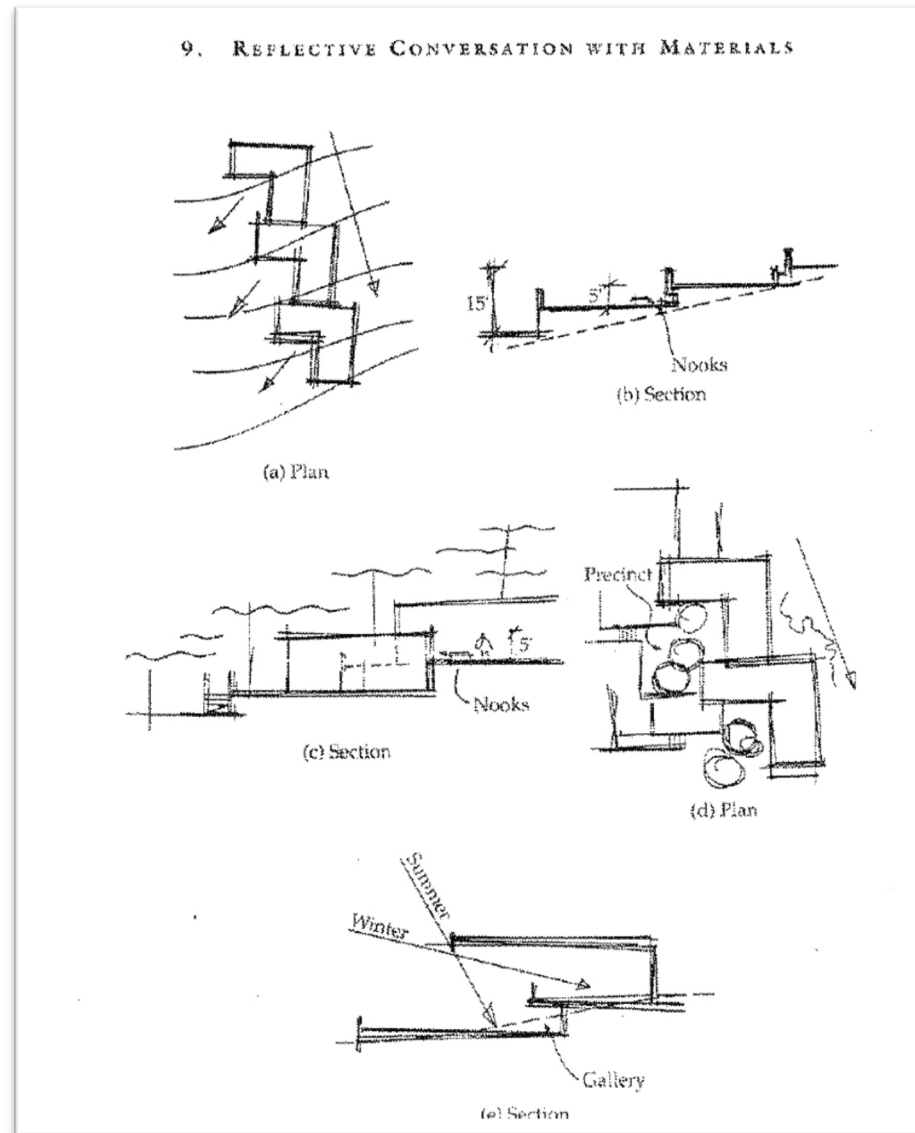
Sketches

... as tools (Buxton, 2007)

- Don't keep it in your head
- Sketches visualize consequences of design proposals
- Make use of the talkback from the paper
- Sketches helps you assess and consider details of a solution in relation to the whole

Work sketches drive design

- Conversation with the material



Subject intro

- Prototypes
 - Qualitatively different from sketches?
 - Within design also very early representations of ideas
 - Designer's tool to understand use and experiences
 - ... but also contexts



The Photostroller

The Photostroller, an interactive device developed by the Interaction Research Studio (Department of Design at Goldsmiths, University of London) has recently been introduced into a care home in York to enhance the daily lives of its residents.

The Photostroller shows a never-ending sequence of images drawn from the Internet, some related, others more random, like an electronic daydream. The flow can be influenced to stay close to a selected category of images, or allowed to drift away to more tenuously related subjects.

Prior its introduction, the research studio carefully studied the appropriate level of interaction for the elderly residents before designing the Photostroller to complement and enhance their daily lives. This informed the design of a wireless controller to enable the residents to tune the type of photographs displayed in the slideshow. A moment of wonder for the team, during the deployment, was witnessing a 99 year old arthritic resident using The Photostroller with relative ease.

Members of the research studio, along with their collaborators from the University of Northumbria and Newcastle University, have visited the care home regularly during the Photostroller's deployment. Both the residents and the carers seem to have been very happy with it. For instance, some residents have taken responsibility for turning it on and explaining it to others, and its mobility has made it possible to use flexibly within the care home environment. It has been particularly interesting to see how the residents' engagement with the Photostroller has grown and changed over the months they have had it.



The wireless controller tunes into different categories of photographs and controls how far the topic may drift.



The wide variety of images encourage story-telling amongst the residents.

The Photostroller was developed in collaboration with researchers at Newcastle and Northumbria Universities as part of the New Dynamics of Ageing (NDA) programme, a seven-year multidisciplinary UK research initiative with the ultimate aim of improving quality of life of older people. The programme is a unique collaboration between five UK Research Councils - ESRC, EPSRC, BBSRC, MRC and AHRC - and is the largest and most ambitious research programme on ageing ever mounted in the UK.

Subject intro

Susanne Bødker (1989)

- To design an artifact means not only to design the artifacts for a specific kind of activity. Because the use of artifacts is part of social activity, we design new conditions for collective activity (e.g., new divisions of labor and other ways of coordination, control, and communication).
- This means that an interactive system affects people and places



<https://www.youtube.com/watch?v=uRKOypmDDBM>



“The Drift Table isn’t just a reference tool. By creating a kind of crack in the enclosure of the home, the Drift Table promotes **daydreaming and imagination**. People might glance at it from time to time to see where they are, and even take the current view as a significant portent. They might just get lost and watch the world go by, or use it as inspiration for real travel. In any case, **the Drift Table isn’t ‘for’ anything in a utilitarian sense**: it provides a resource that people can use or play with as they wish.”

References

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End

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