



IS-104: DIGITAL INTERACTION DESIGN

LECTURE 1: COURSE INTRODUCTION

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August 21, 2019

GOALS FOR TODAY

- A. Introduction to design for interactive systems (Chapter 1)
- B. Course practicalities
- C. Group project and the first deliverable



A. INTRODUCTION TO DESIGN FOR DIGITAL INTERACTION SYSTEMS

WHY LEARN ABOUT DESIGN?



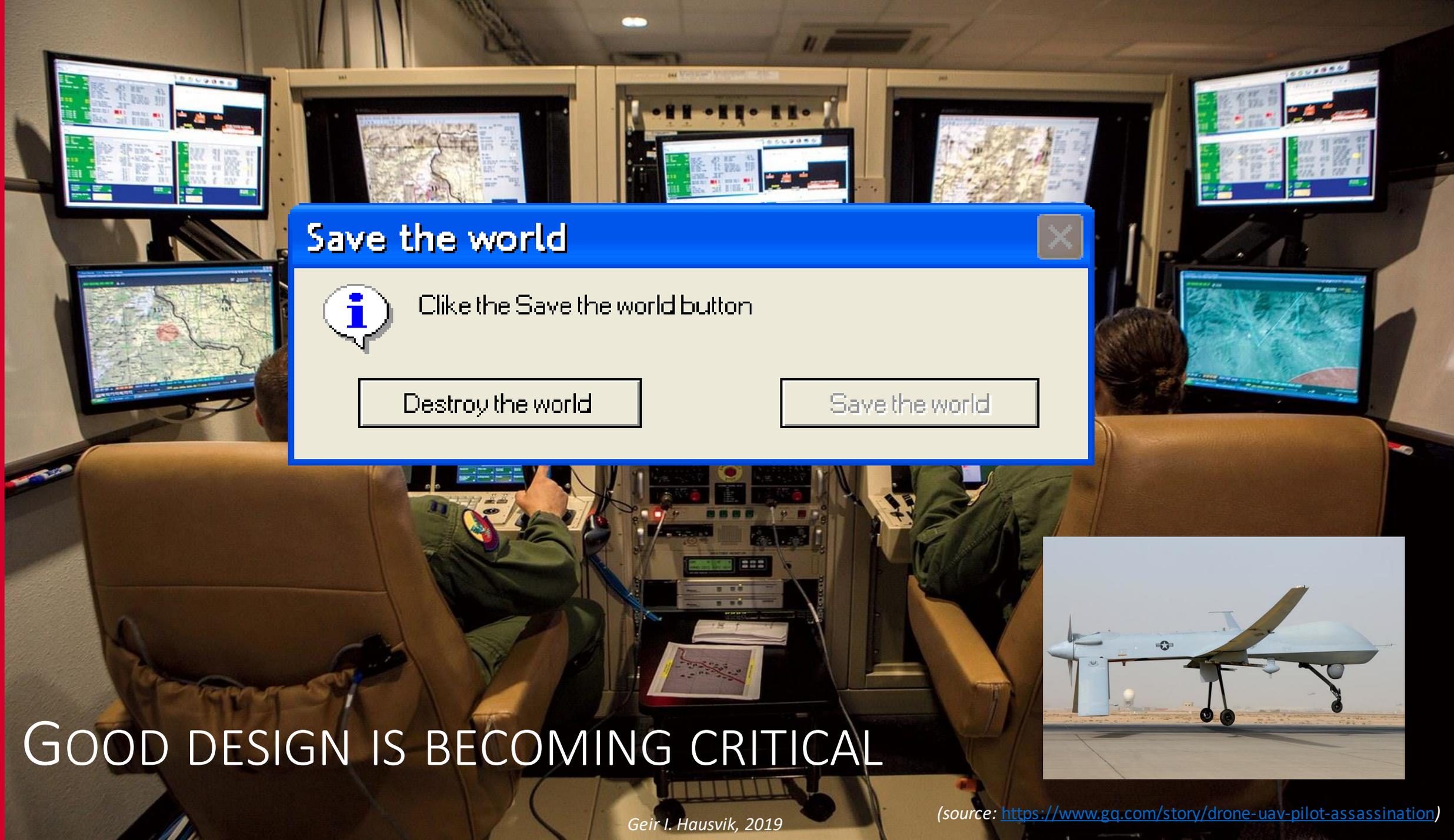
DIGITAL INTERACTION IN EVERYDAY LIFE



GOOD DESIGN IS BECOMING CRITICAL

The screenshot displays the Epic EMR interface for a patient named Northstar, Ian. The interface is titled "Hyperspace - FAMILY MEDICINE - Training - PLY - PAT L". The top navigation bar includes options like Home, Schedule, In Basket, Chart, Patient Lists, Send Letter, and Remind Me. The patient information section shows "Northstar, Ian", "Male, 9 y.o., 01/31/2003", "MRN: 202417", "Code: None", "Allergies: No Known Allergies", "Overdue Health Maintenance...", and "Primary Ins.: None". The main content area is titled "01/27/2012 visit with Pat Limestone, MD for OFFICE VISIT - ear ache". The "Detailed Vitals" section is expanded, showing fields for BP, Heart Rate, Resp, Temp, SpO2, Weight, Height, Waist Circumference, Chest Circumference, Arm Circumference, Peak Flow, and Pain Score. Two red arrows point to the "Detailed Vitals" section in the sidebar and the "Height" field in the main content area.

(source: <https://medium.com/tragic-design/how-bad-ux-killed-jenny-ef915419879e>)



Save the world



Click the Save the world button

Destroy the world

Save the world

GOOD DESIGN IS BECOMING CRITICAL



DIGITAL INTERACTION DESIGN

- Digital
- Interaction
- Design

WHAT IS DESIGN?

It's where you stand with **a foot in two worlds** – the world of technology and the world of people and human processes – and you try to bring the two together



Mitch Kapor

In Winograd, T.
“Bringing design to
software.” (1996), p. 1

DIGITAL INTERACTION

Interactive systems **respond to peoples' actions.**

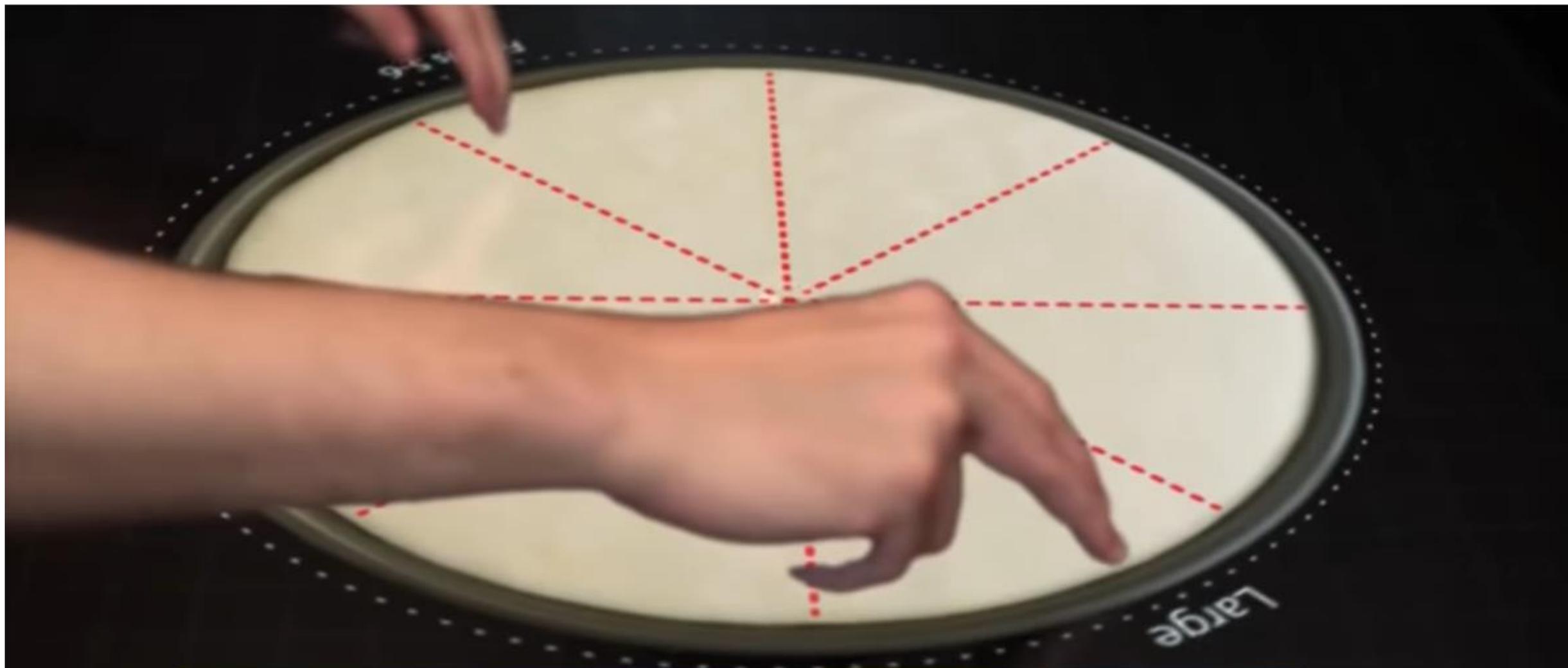
Examples:

- applications for computers and mobile phones
- interactive components in digitally enabled devices (cameras, cars, navigation systems, etc.)
- smart home and smart city solutions

Not everything is interactive: tables, and chairs in this room are not interactive



EXAMPLE OF DIGITAL INTERACTION



Fast food chain unveils touch-screen table pizza ordering system



<https://www.youtube.com/embed/kiTPqZbeT5s>

WHAT IS AN INTERFACE?

The interface to an interactive system is all those parts of the system with which people come into **contact**:

- Physically
- Perceptually
- Conceptually



WHAT IS AN INTERFACE?

The interface needs to provide mechanisms for:

- people to provide instructions and enter data into the system: **'input'**.
- systems to tell people what is happening by providing feedback and displaying the content: **'output'**.



Need to remember:
it's not about the interface—it's
about what people want to do

↑ IMPORTANT ↓

To come up with great solutions, you need to know
who those people are and what they are trying to
accomplish

WHAT IS USER EXPERIENCE (UX)?



<https://www.youtube.com/embed/HtTUsOKjWyQ>

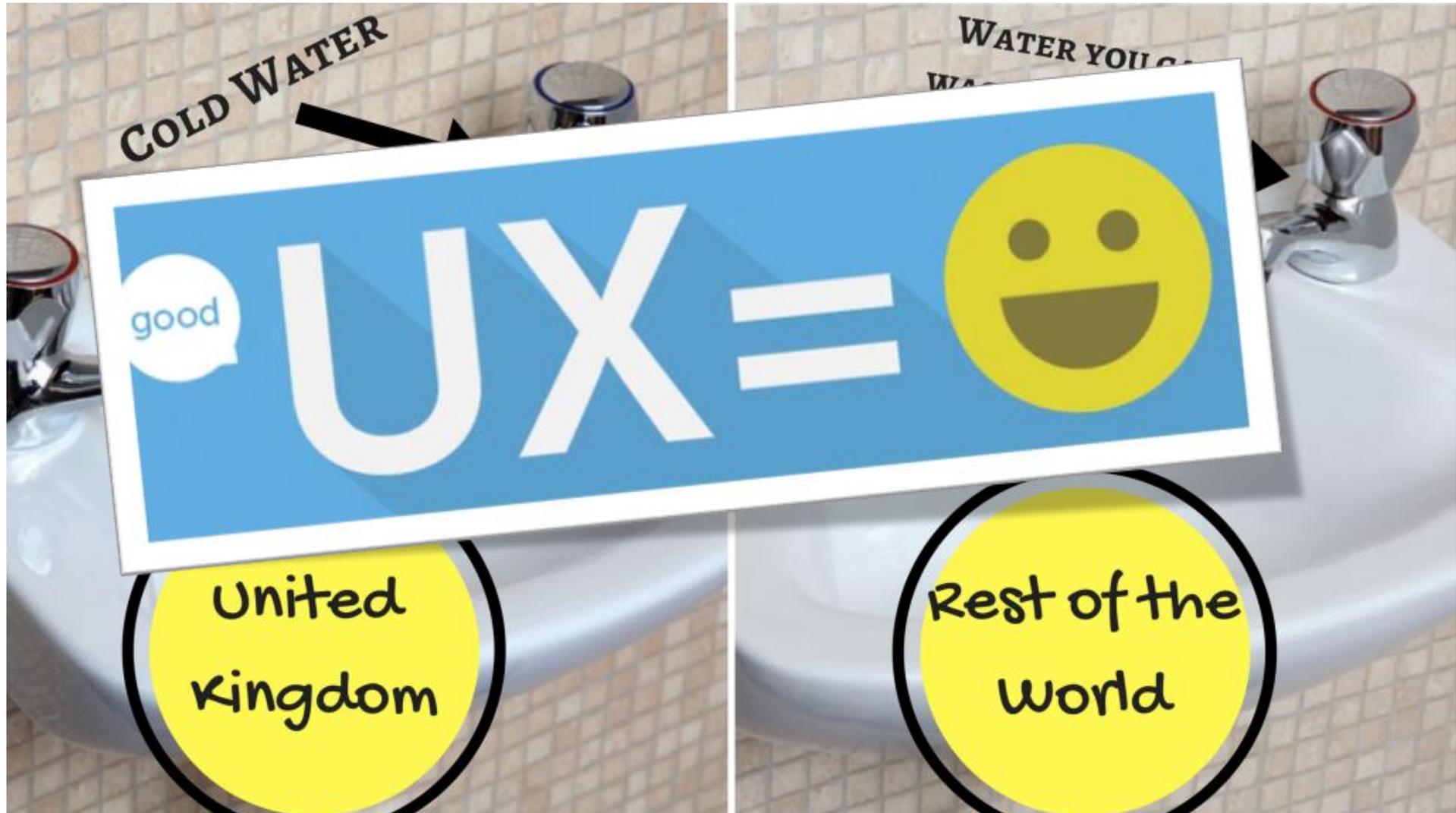
User experience



The diagram within the red oval is organized into three main sections:

- Emotions:** A 3x3 grid of emoji-style faces with labels: happy, worried, angry, hopeful, sad, proud, scared, excited, and disappointed.
- Senses:** A row of five icons representing different senses: VISION (eye), HEARING (ear), SMELL (nose), TASTE (tongue), and TOUCH (hand). Below each icon is a colored circle of the same color.
- Human Actions:** A series of stick figures illustrating various states of movement and interaction, including standing, jumping, running, and falling.

WHAT IS USER EXPERIENCE (UX)?



HUMAN COMPUTER INTERACTION (HCI)

The discipline that researches the design and use of computer technology, focused on the **interfaces** between people and digitally enabled devices.

Users needs take the center-stage in the design of any computer interface

HUMAN COMPUTER INTERACTION (HCI)



HCI?

HUMAN-CENTERED DESIGN

Putting people first!

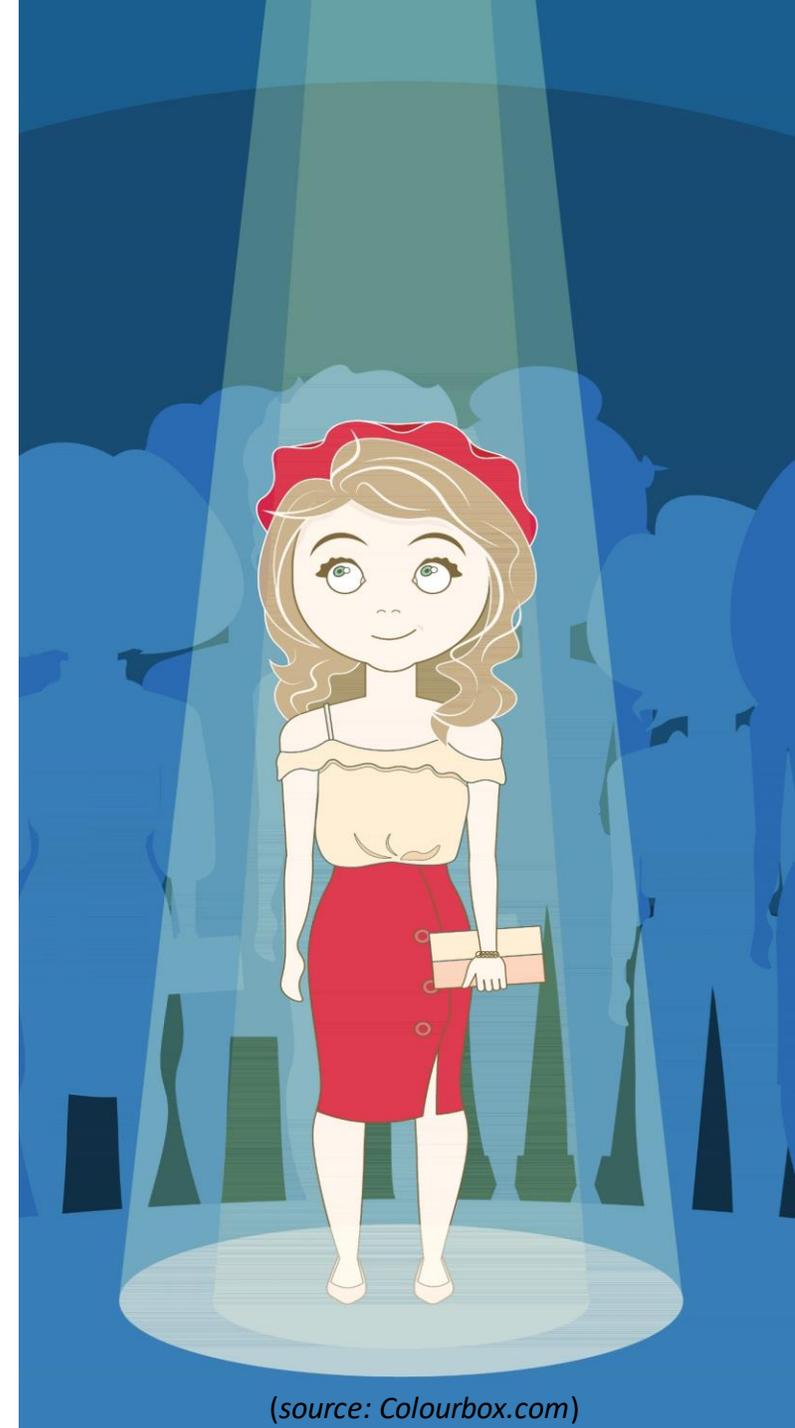
- What people want to do, rather than what technology can do
- New ways to connect people with people
- Involving people in design process
- Designing for diversity



HUMAN-CENTERED DESIGN

The importance of human-centered design:

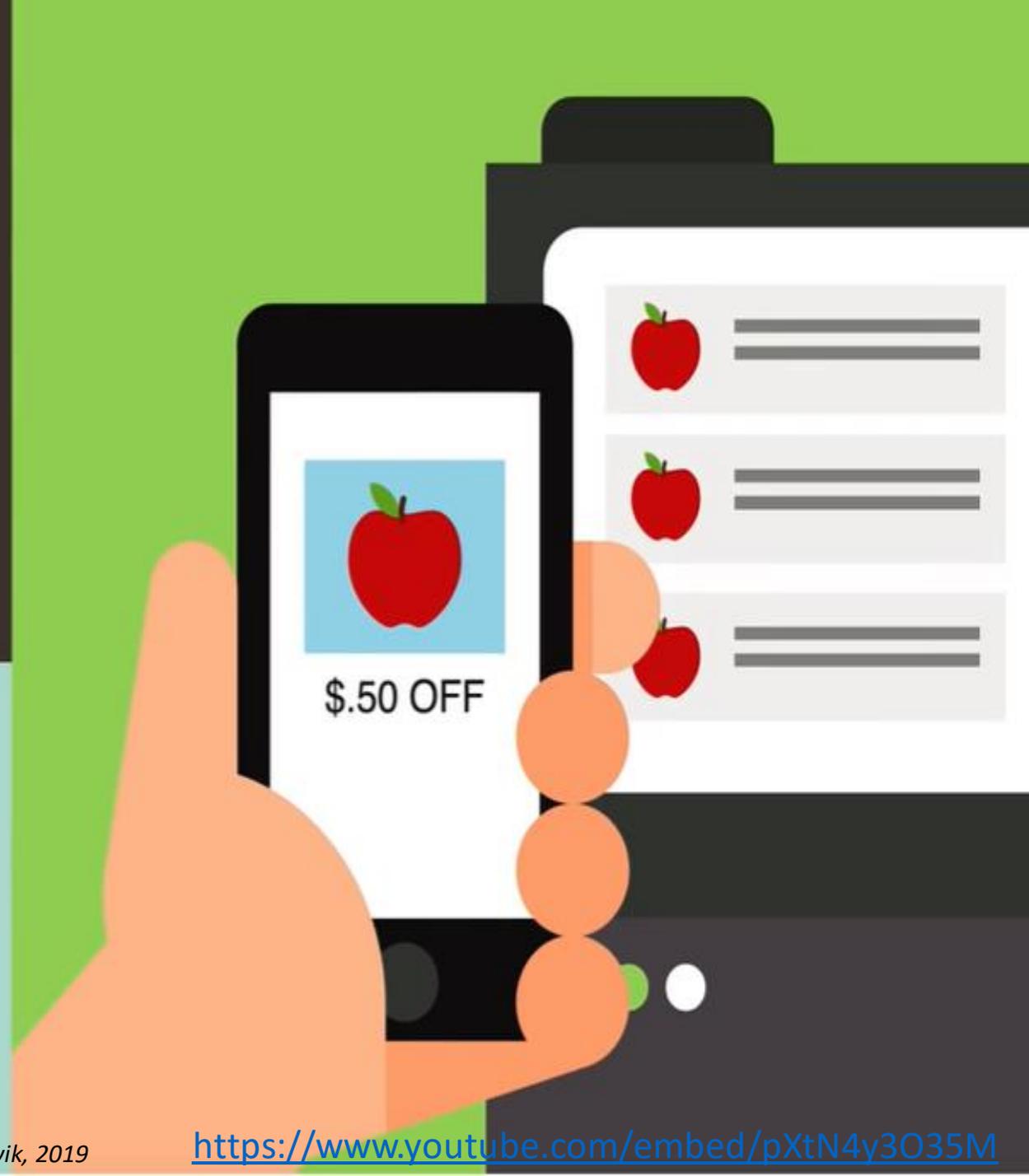
- Being human-centered in design is **expensive**. It involves observing people, talking to people, and trying ideas out with people. All this takes time!
- It is an additional cost to any projects, so businesses rightly ask whether taking so much time to talk to people, produce prototype designs, and so on is **worthwhile**. The answer is 'yes'
- Designing according to the needs of people is proven to have **significant benefits**: reduced calls to customer help lines, less training, more productive use, less errors, increased safety and reliability, increased sales, and so on



WHAT DOES IT TAKE?

Designers of interfaces need a mixture of skills that allows them to be able to:

- study and understand the activities and aspirations of people and the contexts within which technology will be used
- know the possibilities offered by technologies
- define technological solutions that fit in with people, the activities they want to undertake and the contexts in which those activities occur
- evaluate alternative designs and iterate until a solution is arrived at

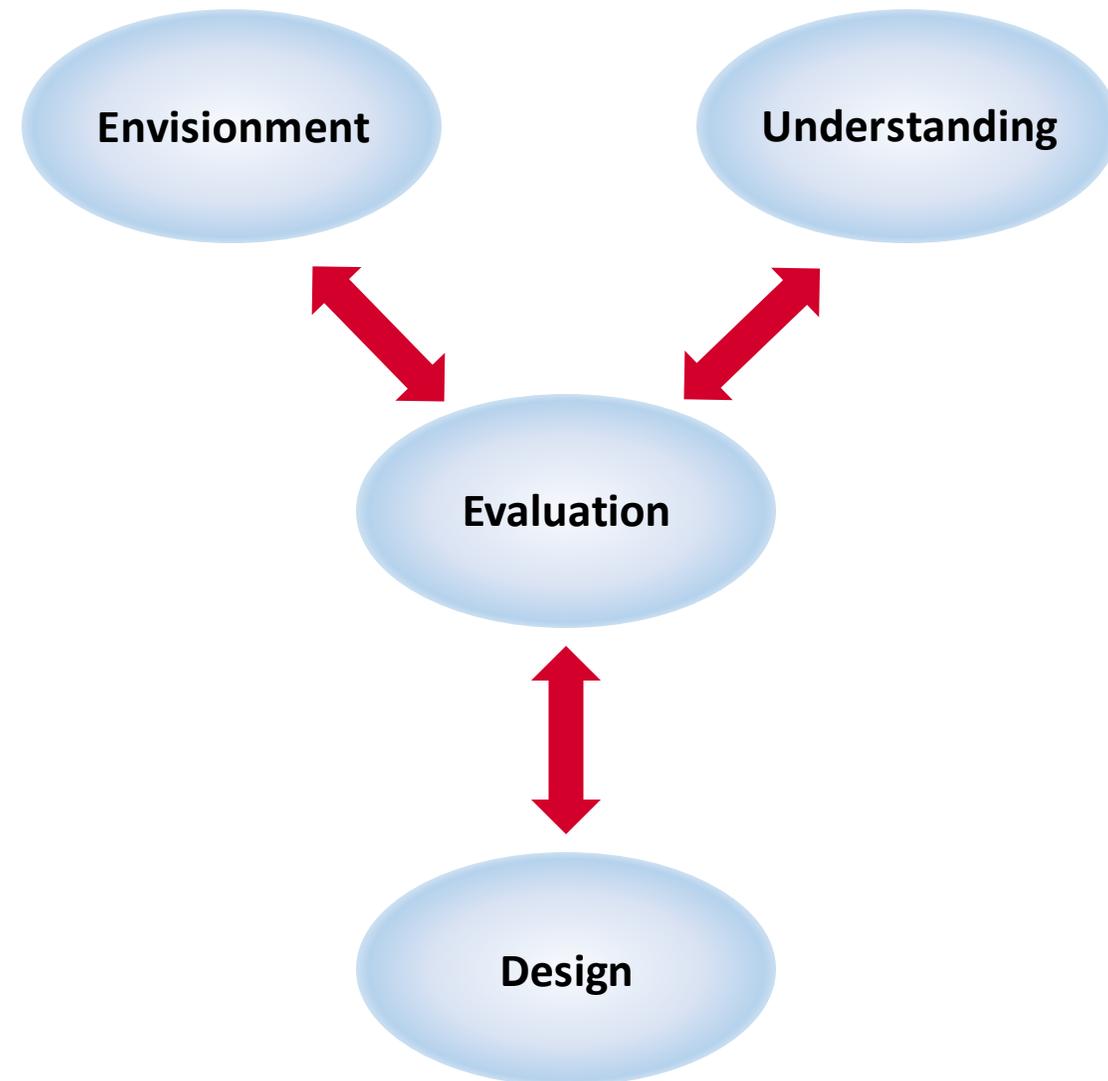


B. COURSE PRACTICALITIES

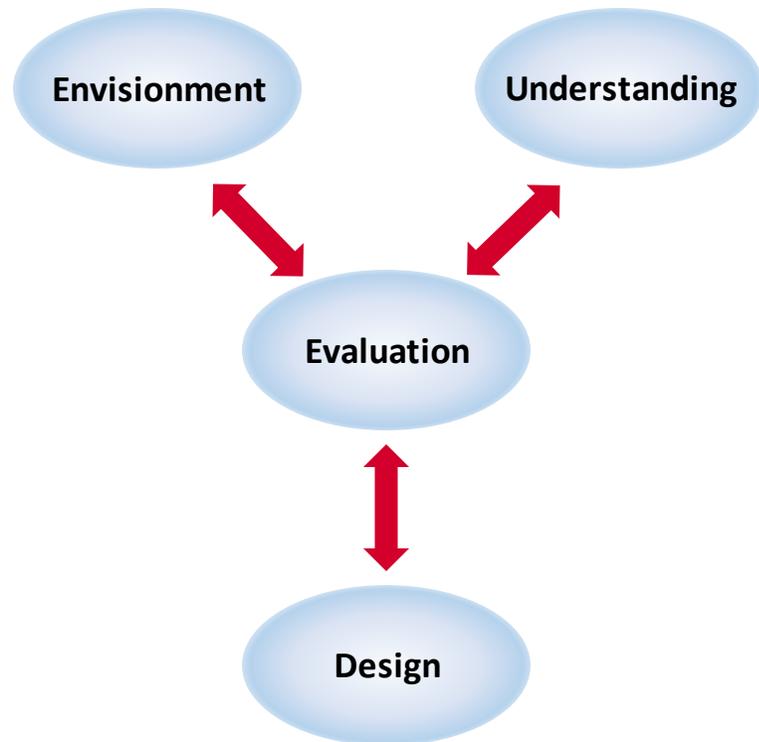
KEY ACTIVITIES

Four key activities for creating good user interfaces

Covered in lectures and group project



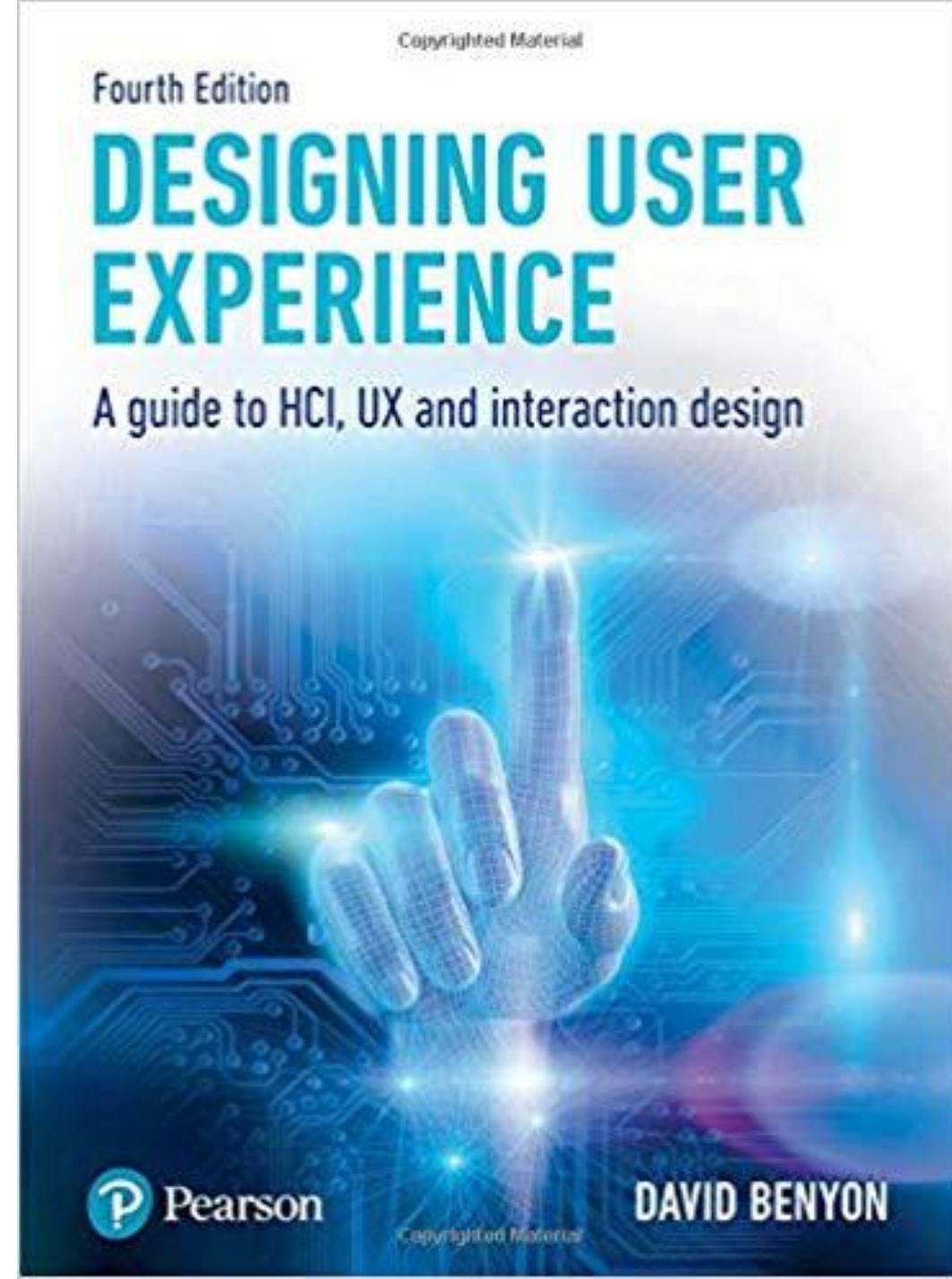
IS-104 LEARNING OUTCOMES



- Be able to demonstrate insight in **design principles, processes, and techniques** for IT-based user interfaces
- Have knowledge of, and be able to, apply criteria for evaluating **usability**
- Be able to explain important characteristics of web user **interfaces**
- In cooperation with others, be able to participate actively in **analysis, design, construction, and test** of a user interface prototype with appropriate usability
- Be able to implement web-based user interface by applying tools for **prototyping**

TEXTBOOK

- Interesting and comprehensive book
- Rich material – we will use a selection of chapters
- Lectures are matched to book chapters





ASSESSMENT

Grade	Description
A – Excellent	An excellent performance, clearly outstanding. The candidate demonstrates excellent judgement and a high degree of independent thinking.
B – Very good	A very good performance. The candidate demonstrates sound judgement and a very good degree of independent thinking
C - Good	A good performance in most areas. The candidate demonstrates a reasonable degree of judgement and independent thinking in the most important areas.
D – Fairly good	A satisfactory performance, but with significant shortcomings. The candidate demonstrates a limited degree of judgement and independent thinking.
E - Sufficient	A performance that meets the minimum criteria, but no more. The candidate demonstrates a very limited degree of judgement and independent thinking.
F - Fail	A performance that does not meet the minimum academic criteria. The candidate demonstrates an absence of both judgement and independent thinking

ASSESSMENT

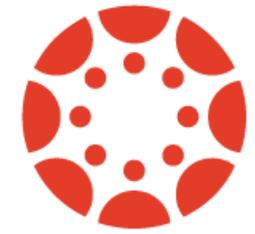
- 40% group project
 - All deliverables have to be completed to take the exam
- 60% individual written exam



GROUP PROJECTS

- Each project group has 6 participants
- Project groups find topics around a set of themes (will discuss this next week)
- Stepwise approach: five deliverables. All group members will have to contribute to all deliverables
- The second and third deliverable will be presented in class. Presentations are mandatory
- Each group is assigned to a teaching assistant (TA) with whom they work during the course. These assignments are posted in Canvas
- You will have to meet your TAs at least 4 times in the semester during group hours

CANVAS



canvas
BY INSTRUCTURE

Detailed deliverables are posted in CANVAS

Assignments		
...	Deliverable 1: Group project scoping and plan A process view on digital interaction design Module Due 9 Sep at 23:59	✓
...	Deliverable 2: Understanding Understanding for digital interaction Module Due 30 Sep at 23:59	✓
...	Deliverable 3: Initial design Design for usability and user experience Module Due 21 Oct at 23:59	✓
...	Deliverable 4: Prototype Envisioning digital interaction Module Due 4 Nov at 23:59	✓
...	Deliverable 5: Evaluation Evaluation of digital interaction Module Due 20 Nov at 23:59	✓

CANVAS

- You need to check CANVAS regularly!
- Strongly encouraged to keep notifications turned on
- You can also use CANVAS app on your mobile phones



UiA IS-104-1 19H

2019 HØST

- Home
- Announcements
- Assignments
- Syllabus
- Modules
- Pensumliste
- Quizzes
- People
- Discussions
- Grades
- Pages
- Files
- Outcomes
- Conferences

Recent announcements

Important message
Read this!

Posted on:
19 Jun 2019 at 16:11

IS-104-1 19H Digital interaksjonsdesign Edit

Welcome to IS-104!

Course Structure

The course is structured in **five modules**, the first module ([A process view on digital interaction design](#)) provides an introduction to the overall process of creating good interactive systems, the other modules focus specifically in the four key activities of understanding ([Understanding for digital interaction](#)), design ([Design for usability and user experience](#)), envisionment ([Envisioning digital interaction](#)) and evaluation ([Evaluation of digital interaction](#)).

COURSE INSTRUCTORS AND TEACHING ASSISTANTS

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C. GROUP PROJECT AND THE FIRST DELIVERABLE

GROUP PROJECT

- Practicing is the key to learning in IS-104
- Semester-long group project
- All deliverables revolves around the project
- All members must contribute equally to all deliverables
- Group sessions are dedicated to work on deliverables
- You need to allocate sufficient time on the project

The topic of the projects (drumroll)...

GROUP PROJECT

Timebanking

<https://www.youtube.com/embed/QJFmzCMba-E>

<https://www.youtube.com/embed/70AE6rtVCrg>

<https://www.youtube.com/embed/HAMLSmbvDSg>

<https://www.smithsonianmag.com/innovation/time-banking-is-catching-on-in-digital-world-180969437/>

TIMEBANKING

Design an app for timebanking

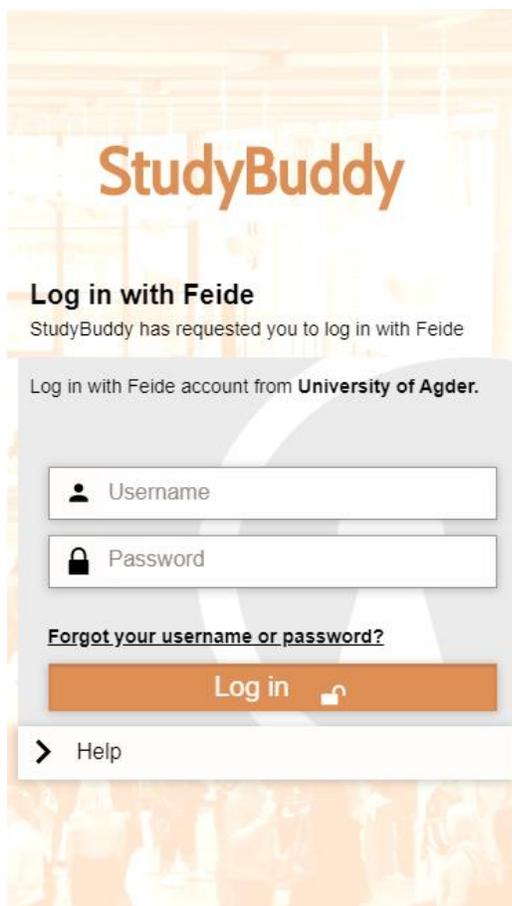
- Among UiA students
- Among people in your neighborhood
- Among friends and family of elderly living in a nursing home
- Among kids' parents in a kindergarten
- Among a global community of people that want to practice foreign languages
- Or any match-making/service-swapping platform within a “community”

You may also propose topics beyond this year's theme. Just note:

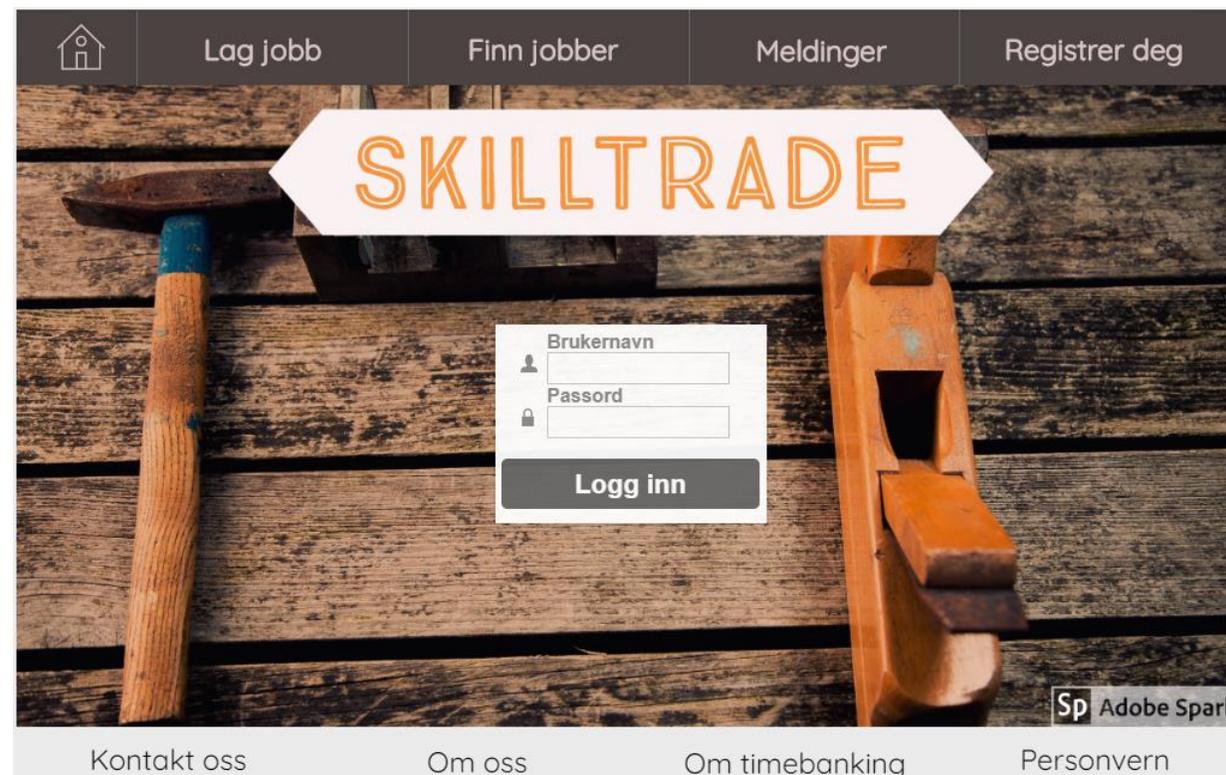
- Need to be able to contact the prospective users
- Need simple ideas

Discuss project ideas within your group and come with proposals next week. You can also use the grouptime today for developing ideas. The teaching assistants will be available from 11.15-13.00

INSPIRATION FROM LAST YEARS'S PROJECTS



<https://preview.uxpin.com/fd61f17bd308ba38382dd9435a200ceafc2ccc74#/pages//simulate/no-panels>



<https://preview.uxpin.com/bd85fbaeb348aeb18b1a01b004d379a615ee167c#/pages//simulate/no-panels>

FIRST DELIVERABLE

- Home
- Announcements
- Assignments**
- Syllabus
- Modules
- Pensumliste
- Quizzes
- People
- Discussions
- Grades
- Pages
- Files

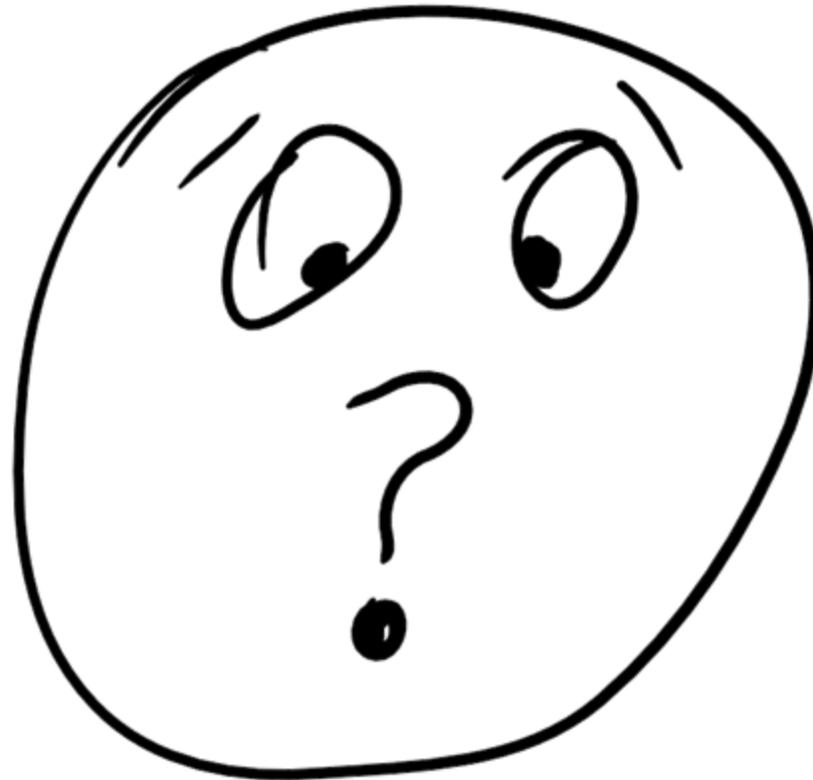
Assignments

	Deliverable 1: Group project scoping and plan Due 10 Sep at 12:00		
	Deliverable 2: Understanding Due 1 Oct at 12:00		
	Deliverable 3: Initial design Due 22 Oct at 12:00		
	Deliverable 4: Prototype Due 5 Nov at 12:00		
	Deliverable 5: Evaluation Due 21 Nov at 12:00		



- Importance of design
- Design
- Digital interaction design
- Interface
- User experience
- Human-computer interaction
- Human-centered design

QUESTIONS?





- PACT and the process of designing UX
- The process of human-centered design

