HCI/Systems Analysis and Stakeholders

Also overview of Hand-in assignment 1

School of Computer Science | Software Analysis &Design
Marta Kristín Lárusdóttir Lektor PhD

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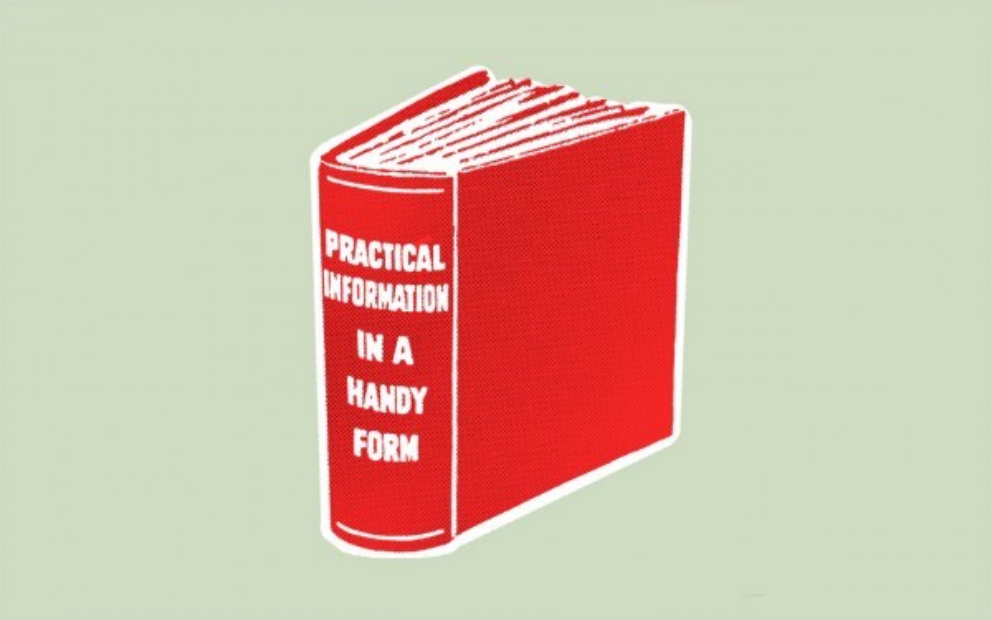
  - Chapter 2

Practical Information

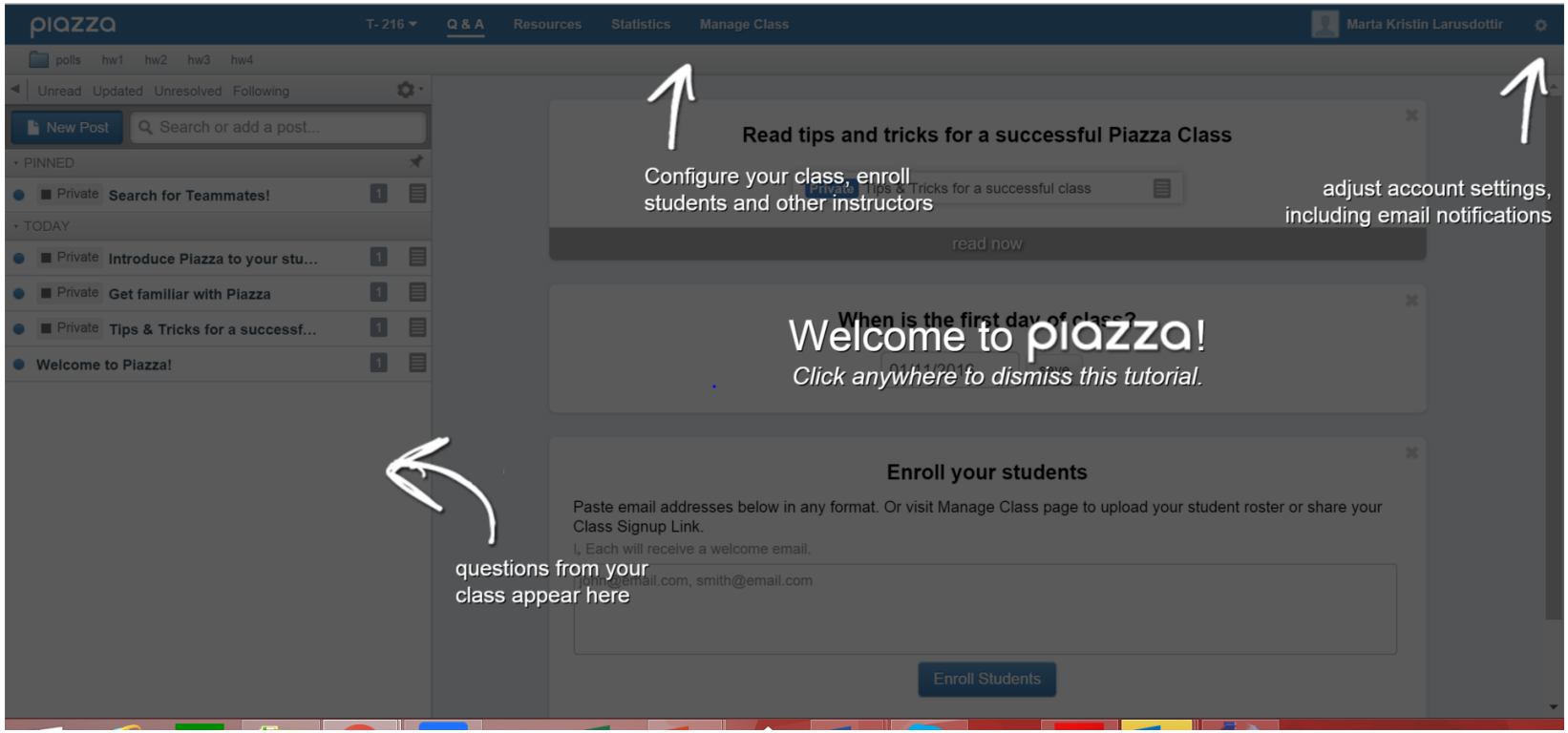


Piazza Group Created

- **T-216 Software Requirements and Design**
- I added all students registered in the course
- This will be to forum for Q and A in the course
  - I want you to ask questions there and not in email

- I will try to answer as soon as I can
  - I do not promise to answer during evening or after normal office hours

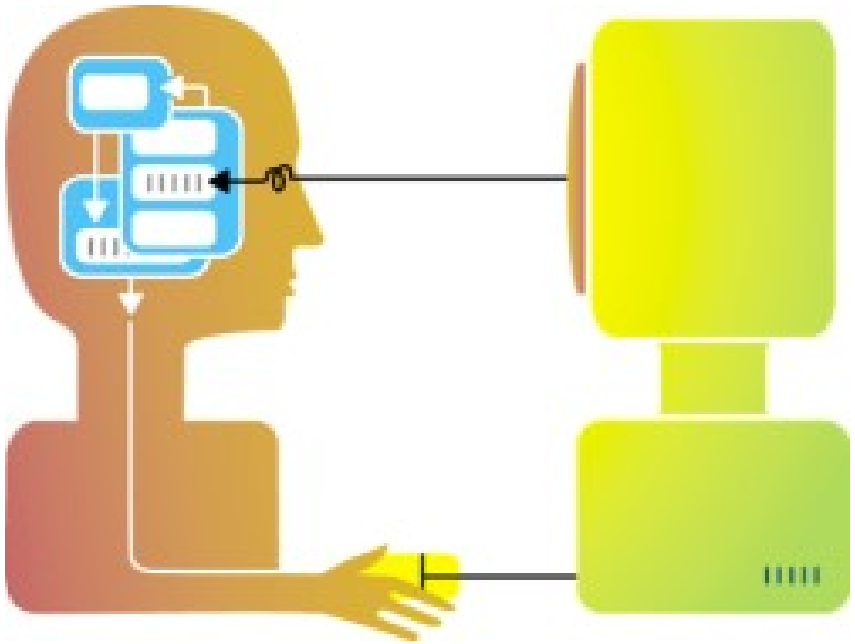
Nice User Experience



Assignment 1

- Emphasising
  - Comparing Web sites (Bera saman vefsíður)
  - Analysing user groups (Greina notendahópa)
  - Requirement list (Kröfulisti)
- Hand in Saturday 30th January at 23:59hrs
- Lectures next week (users) will be part of the assignment, you can start now on requirements list
- Groups of 3-5 students, you make your own team
  - If you can not find a team, you could use Piazza to find teammates
  - Fjarnám & HMV also need to find teammates within their group

The Disiplines Behind the Course



The Disciplines Behind This Course

- This course is a mixture from a few disciplines (Ísl: mismunandi fræðigreinar)
  - HCI, ID & HCD (viðmótshönnun)*
    - Involves incorporating human factors in the analysis and execution process, using the notion of Usability (nytsemi) and UX/User experience (notendaupplifun) and the use of prototypes (notkun frumgerða)
  - Systems Analysis (kerfisgreining) and System Design (Kerfishönnun)
    - Involves using requirements analysis (þarfagreining) and code architecture - OOD (object oriented design)
  - Different methodologies
    - That use the above in various manners

HCI = Human Computer Interaction
HCD = Human Centered Design
ID = Interaction Design

HCI

- HCI has been around since the early 1980s
  - but got more accepted as a serious dicipline with the introduction of the web after 1990
- The definition from ACM SIGCHI in 1992:

  “Human computer interaction is a discipline concerned with the design, evaluation and implementation of interactive computing systems for human use and the study of major phenomena surrounding them”
- Usability and User Experience (UX) design is becoming more important
  - with new accessible technology for the public, e.g. Smart interfaces, wearble computing, html5 capabilities and so on

The computer system is a tool

Users

Tasks - goals

Tool

Useful and

Easy to use

Definition of usability (easy to use)

- "The extent to which *a product* can be used by specified *users* to achieve specified *goals* with *effectiveness*, *efficiency* and *satisfaction* in a specified *context*"

ISO 9241-11:1998

Definition of User Experience (UX)

- person's perceptions and responses resulting from the use and/or anticipated use of a product, system or service
- ISO 9241-210 (2010)
- NOTE 1 User experience includes all the users' emotions, beliefs, preferences, perceptions, physical and psychological responses, behaviours and accomplishments that occur before, during and after use.
- NOTE 3 Usability, when interpreted from the perspective of the users' personal goals, can include the kind of perceptual and emotional aspects typically associated with user experience. Usability criteria can be used to assess aspects of user experience.

Interaction Design & User Centred Design

- Interaction Design
  - the practice of designing interactive digital products, environments, systems, and services (Cooper et al., 2007)
- Human Centred Design
  - approach to systems design and development that aims to make interactive systems more usable by focusing on the use of the system and applying human factors/ergonomics and usability knowledge and techniques
- In this course
  - You involve the user in your analysis and design
  - So we need to find out who are the stakeholders of the system we are about to embark upon

System Analysis According to the Course Book

- Definition: Those activities that enable a person to understand and specify what the new system should accomplish
  - The operative words are “understand” and “specify”
- Systems analysis is much more than simply a brief statement of the problem
  - For example, a customer management system must keep track of customers, register products, monitor warranties, and keep track of service levels, among many other functions—all of which have myriad details
- Systems analysis describes in detail “what” a system must do to satisfy the need or to solve the problem

System Design According to the Course Book

- Definition: Those activities that enable a person to define and describe in detail the system that solves the need
  - The operative word is “solves”
- It specifies in detail all the components of the solution system and how they work together to provide the desired solution
- In other words, systems design describes “how” the system will work

The Stakeholders of Software Systems

The Stakeholders of an IT system

- Stakeholders are:
  - primary source of information for system requirements
  - people who have an interest in the successful implementation of the system

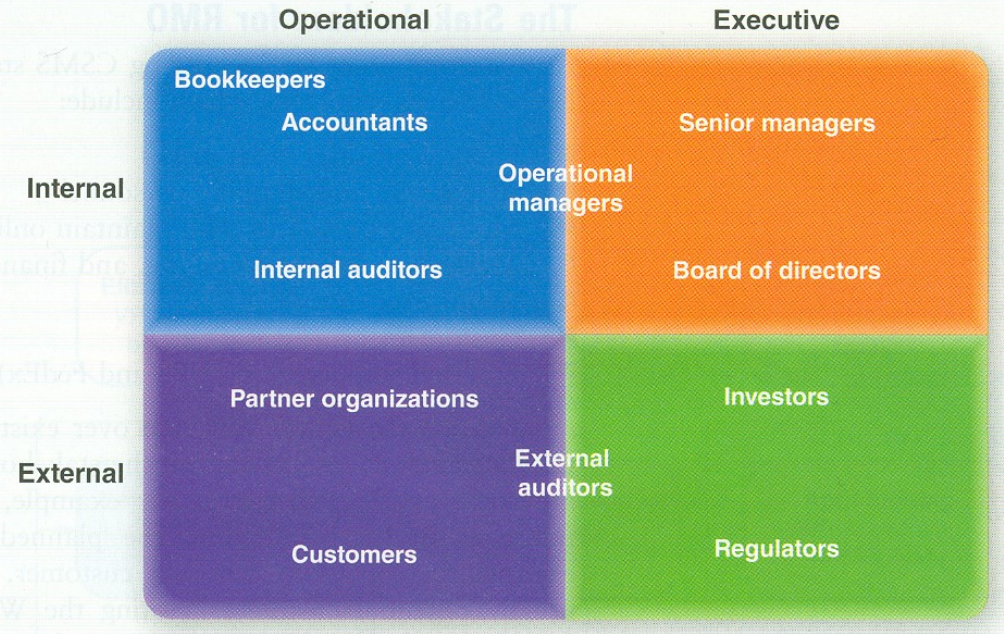
Stakeholders – categorization

- Internal
  - People within an organization who interact with the system or have interest in it – the end users
- External
  - People outside an organization, have interest in the operations and interact with the system or have interest in it
- Operational
  - Persons who regurarly interact with the system in jobs or lives
- Executive
  - People with financial and operational interest in the system
- Client
  - Those who fund the project

» See book 6th edition: Chapter 2, pg. 44-45

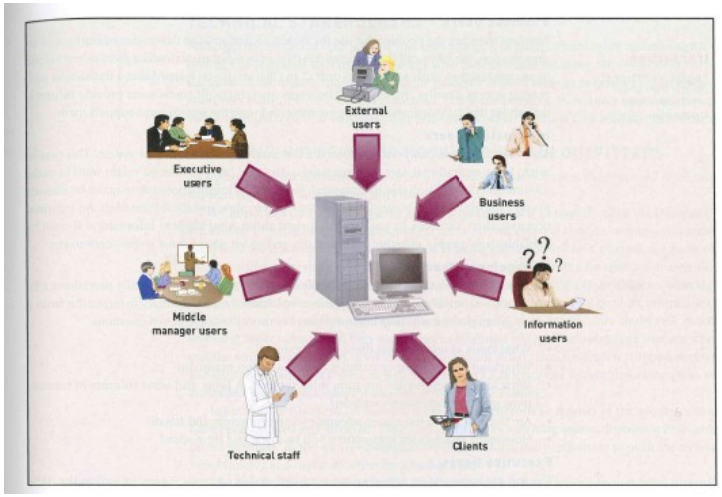
An example

FIGURE 2-6
Stakeholders of a comprehensive accounting system for a publicly traded company



Stakeholders – another catagorization (old book)

- See old book 5th edition: Chapter 4, pg. 128 - 131
- Stakeholders are categorized in three groups:
  - Users – those who actually use the system
    - Business, information, management, executive and external users
  - Clients – those who pay for and own the system
  - The technical staff – those that make the system



The End Users

- Who are the end users?
  - (ISO= specified users)
- What characterizes them?
- That is called: USER ANALYSIS
  - Is a part of hand-in assignment 1
- What do we want to know?
  - Personal information?
  - As much as possible?
  - What information gives you most success?
  - Why do we want to gather information?

- Will study this next week

Summary

- Diciplines behind the course
  - We studied the definitions of HCI and System Analysis and Design
  - Also definition of Interaction Design and Human Centred Design
- The Stakeholders of Software System
  - We studied the different stakeholders and the categorisation of those
- Next week
  - User Analysis
  - User stories
  - User Cases and use case diagrams
  - Reading: Ch. 5 (110 – 114), cp. 3 (72 – 78)