

Interaction Design



Module Overview
2017-18

Module Information

- **Module Name**
 - Part IA → Interaction Design
- **General** information
 - Computer Lab page:
<http://www.cl.cam.ac.uk/teaching/1718/CST/node24.html>
- **Specific** information, lecture notes, announcement etc.
 - Moodle page:
<https://www.vle.cam.ac.uk/course/view.php?id=141192>

Lecturer

- Dr Hatice (Hatije) Gunes

Module organiser and Lecturer

Senior Lecturer (Graphics and Interaction Group)

Hatice.Gunes@cl.cam.ac.uk

<https://www.cl.cam.ac.uk/~hg410/>

- **Office hours**

- Thursdays, 16:00-17:00
 - Make an appointment!

Lectures and Practical Sessions

■ Lectures

- Day: Tuesday & **Thursday**
- Time: 11:00am-12:00pm
1-hour slots (8 in total)
- Location: Lecture Theatre 1
- Dates: **26 Apr** - 22 May, 2018
- **Student Presentations: 24 May**

■ Lab / Practical sessions

- 7x2-hour slots **after the lecture (starting next week!)**
- Time: 14:00am-16:00pm
- Day: Tuesday & Thursday
- Dates: 1 May - 22 May, 2018
- Location: Intel Lab



Lab Assistants

- Kate Livingstone

Senior User Experience and Design Researcher, Cambridge University
Information Services

- Mariana Marasoiu

PhD student in Graphics and Interaction Group

- Ioannis Politis

Postdoctoral Research Associate in Human Interaction

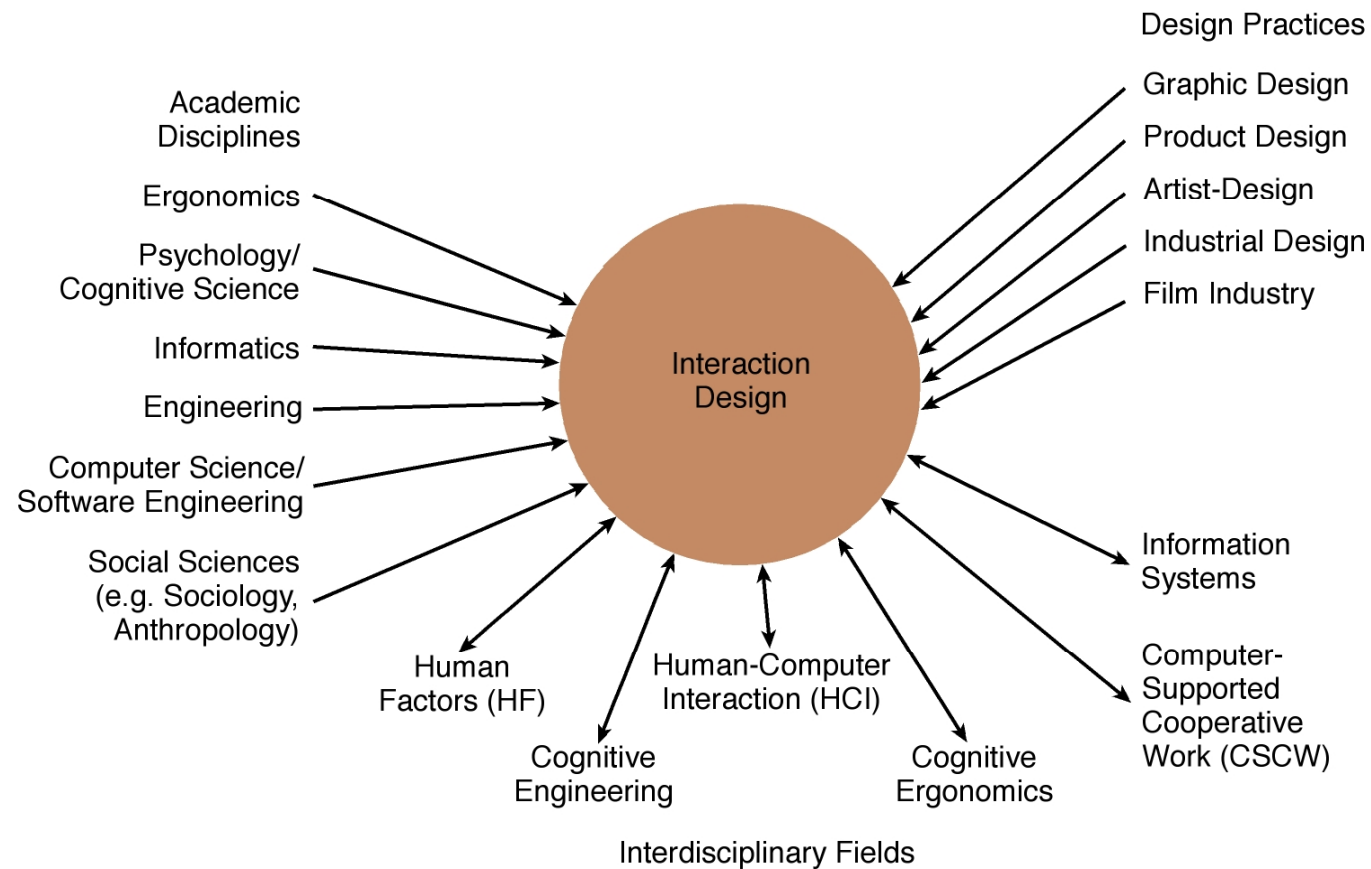
- Theo Amanatidis

PhD student in Engineering Design

What is Interaction Design?

- “Designing interactive products to support the way people communicate and interact in their everyday and working lives.”
 - Preece, Sharp and Rogers (2015)
- “The design of spaces for human communication and interaction.”
 - Winograd (1997)

Interaction Design





Goals of Interaction Design

- Develop usable products
 - Usable → easy to learn, effective to use and provide an enjoyable experience
- Involve users in the design process



The Process of Interaction Design

- Establishing requirements
- Developing alternatives
- Prototyping
- Evaluating

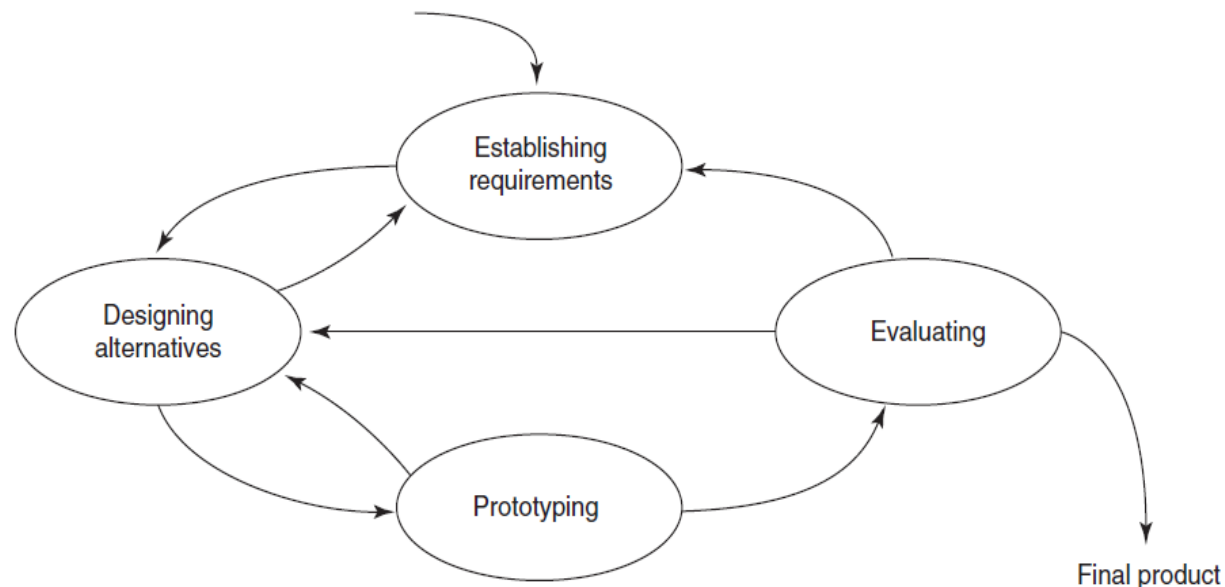
Module Objectives

By the end of the course you should

- have a thorough understanding of the **iterative design process** and be able to **apply it to interaction design**
- be able to **design new user interfaces** that are **informed by principles** of good design, and the principles of human visual and affective perception, cognition and communication
- be able to construct user interfaces using Java with a **strong emphasis on users**, usability and appearance
- be able to **evaluate** existing or new **user interfaces** using multiple techniques
- be able to **compare** and contrast different **design techniques** and to critique their applicability to new domains

Lecture Topics

- **Iterative** user centered development



A simple interaction design lifecycle model

Topics & Timeline

Date	Topics
26 Apr	Introduction to the module Gathering requirements
1 May	Gathering data
3 May	Design process & Prototyping
8 May	Case studies from the industry
10 May	Principles of good design
15 May	Human cognition & design
17 May	GOMS Hick's Law & Fitts's Law
22 May	Heuristic Evaluation Cognitive Walkthrough

Practical Sessions: Objectives

The objectives of the practical sessions are:

- to enable you to have a **hands-on experience** on the various **aspects of interaction** and user interface **design process**
 - from requirements and data gathering to implementation
- while gaining an **understanding** of the background to **human factors**
- and to provide you **a forum** in which you can **explore** the **use of theories** and **techniques** outlined in the lectures

Practical Sessions: Objectives

By the end of the practical sessions, you will have hands-on experience of:

- **creating designs** for a user interface for a target application and a target user group
- **constructing user interfaces** using Java with a strong emphasis on users, usability and appearance
- **reflecting on the design choices** made and the evaluation techniques that can be used to identify any potential issues

Practical Sessions: The Task

- Overall task:
 - to design and create a **working weather app** for a chosen primary stakeholder



Practical Sessions: The Task

- Overall task:
 - to design and create a **working weather app** for mobile/tablet for a chosen primary stakeholder
 - for simplicity of implementation, you will be **coding**, running and testing the app **on desktop/laptop**
- This will be done in three stages:
 - **Task 1**: Gathering requirements and data
 - **Task 2**: Designing a lo-fi prototype
 - **Task 3**: Implementing a hi-fi prototype

Practical Sessions: Structure

- The focus of the practical sessions will be as follows:
 - Gathering requirements & data (May 1 & May 3)
 - Designing a lo-fi prototype (May 8 & May 10)
 - Implementing a hi-fi prototype (May 15, May 17 & May 22)
- You will be working as a group
 - You are expected to finish each task within the designated time

Practical Sessions: Structure

- You will be working in groups of ~5 / 6
 - The groups have been created in advance
 - Check your group and group members:
https://www.vle.cam.ac.uk/pluginfile.php/8999142/mod_resource/content/1/InteractionDesignList-Moodle.pdf
- Each group will be assigned a specific lab assistant
 - Your lab demonstrator is your first point of contact in lab sessions
 - If they cannot help, contact other lab demonstrators

Practical Sessions: Assessment

- **Group-based assessment**

- In the form of **three ticks** focusing on **three tasks**:

- **Tick 1**: Requirements & Data gathering (May 3)
 - **Tick 2**: Design (May 10)
 - **Tick 3**: Implementation (May 22)

Group-based Assessment



Preparing for the Exam

- Just looking at your notes won't help you learn them
- **Depth of processing**
 - Attending lectures and using/applying the material learned
 - ensures material gets lodged in your memory

Questions

