Introduction to COMP4461: Human-Computer Interaction

Xiaojuan Ma  Fall 2018
About this Course

• Instructor
  – Xiaojuan Ma
  – Email: mxj@cse.ust.hk
  – Office: RM3507

• TA
  – Zhenhui Peng (zpengab@connect.ust.hk)

• Time and Location
  – Lecture: MW 12:00pm – 1:20pm @ Rm 2304, Lift 17-18
  – Lab: 4 in-class lab sessions (see course syllabus)
Course Website and Space

• Course website: http://home.cse.ust.hk/~mxj/page/COMP4461-201809.html

• Team Link: https://comp4461.slack.com/

• We will use slack for course communication
  – Make course announcement
  – Publish course materials
  – Submit assignments
  – Public discussion
  – Private message

• Give me an email address and I will invite you
  – My Slack Team ID is xm
Slack Joins The Billion-Dollar Startup Club

http://www.forbes.com/sites/ellenhuet/2014/10/31/slack-raises-120m-at-1b-valuation/
Course Learning Outcomes

• Knowledge/Content Related:
  • Course ILO #1: Understanding the basic concepts and methods in HCI research
  • Course ILO #2: Understanding the foundations and trends of HCI applications

• Academic Skills/Competencies:
  • Course ILO #3: Design an interactive system using various methods through different design activities.
  • Course ILO #4: Prototype an interactive system with assorted digital and physical tools
  • Course ILO #5: Evaluate an interactive system through user studies.

• Other Learning Outcomes:
  • Course ILO #6: Communicate effectively with target users and different stakeholders in academia and industry
Grading Scheme

• Experiential Learning
  • Three group projects  60%
    – Project 1  15%
    – Project 2  20%
    – Project 3  25%
  • Midterm:  15%
  • Video Paper:  15%
• Participation + Bonus:  10%
Personal Portfolio Page

• Create a personal portfolio page to host your personal HCI project diaries
  – May use free website builders e.g., wix.com

• Examples:
  – http://harkmylord.com/
  – http://simonpan.com/
(1) Projects 60%

- P1: (Re)Design App 15%
  - Initial wireframe design 5%
    - Can use wireframe tools e.g., [https://www.draw.io/](https://www.draw.io/)
    - Main page + individual project page
  - Revised high-fidelity prototype 10%
    - Pitch your design in class for peer review
    - Articulate the changes you have made, decision principles applied, and design decisions made
  - Launching a working version 5%
    - Keep a personal diary of project 1
- Lab 1: web programming
(1) Projects 60% (cont.)

• P2: Mixed Reality 20%
  – Group Point-of-View (POV) video 12%
    • Empathize, needfinding, ideation
    • Demonstration of proposed solution
  – Personal diary of Project 2 8%
    • Posted on individual portfolio
    • Text, pictures, diagrams, etc.
  – Lab 2: programming Philips Hue

• Group assignment
  – Work with different people in P2 and P3
(1) Projects 60% (cont.)

- P3: Human-Robot Interaction 25%
  - Group POV video with working demo 15%
  - Personal diary of Project 3 10%
  - Lab 3 & 4: robot programming

- Late policy
  - Up to 3 days in total
  - Available only by request in advance through email or private message on Slack
  - No credit otherwise
(2) Midterm 15%

- In-class, Wed Oct 24 (80 min)
- 3~5 Questions
- Open Book
  - Textbook and printed lecture notes only
  - No phone/pad, no computer (unless specified)
(4) Final Video Paper 15%

• Theme “Happiness”
• Length: 2~5 min
• Video Showcase
  – Final Screening on Nov 28
  – Audience’s Choice
    • Best video
    • Most educational video (intellectually and/or socially)
    • Most innovation video (concept and/or application)
    • Most entertaining video (story and/or presentation)
(4) Participation + Bonus 10%

- Attendance + Activeness
  - Three Peer Reviews
  - In-class presentation “The good, the bad, the ugly”
  - Additional bonus awarded to excellent work in each project

- Note
  - Bring a pen/pencil and a deck of paper
  - 1 token earned for active participation in one lecture
  - 10 tokens can be used to trade for 1 additional late day
Course Learning Outcome

• Lecture, Projects, Midterm
  – Understand the basic concepts and methods in HCI
  – Understand the foundations and trends of HCI applications

• Lecture, Projects
  – Learn to identify user needs, abilities, and constraints
  – Learn to design, prototype, and evaluate HCI technologies

• Lecture, Projects, (Midterm)
  – Analyze potential social impact and responsibilities as well as possible ethical, legal, security and privacy issues

• Projects and Participation
  – Communicate effectively with target users and different stakeholders in academia and industry
<table>
<thead>
<tr>
<th>Course Learning Outcome</th>
<th>Exemplary</th>
<th>Competent</th>
<th>Needs Work</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding the basic concepts and methods in HCI research</td>
<td>Define and clarify the basic HCI concepts and methodologies, and provide proper examples for demonstration</td>
<td>Define and clarify the basic HCI concepts and methodologies.</td>
<td>Define the basic terminologies and methodologies in HCI research, have difficulty in clarifying the details, conditions, and contexts.</td>
<td>Have difficulty in explaining the basic concepts and processes of common design / prototyping / evaluation methods in HCI research</td>
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<tr>
<td>Understanding the foundations and trends of HCI applications</td>
<td>Elicit the history of HCI applications, the key changes, and driving forces, clarify the major challenges and future directions</td>
<td>Elicit the history of HCI applications, and explain the key changes and driving forces</td>
<td>Elicit the history of HCI applications, have difficulty in explaining the key changes and driving forces</td>
<td>Have difficulty in identifying the core values, scopes, challenges, and trends in HCI applications</td>
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<tr>
<td>Design an interactive system using various methods through different design activities</td>
<td>Conduct common design activities such as needfinding, make good use of design tools such as mindmap, and generate clear design insights</td>
<td>Conduct common design activities such as needfinding and make good use of design tools such as mindmap</td>
<td>Conduct common design activities such as needfinding and brainstorming, have difficulty in using design tools such as mindmap</td>
<td>Have difficulty in conducting common activities such as needfinding and brainstorming in design process to generate design ideas</td>
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<tr>
<td>Prototype an interactive system with assorted digital and physical tools</td>
<td>Conduct common prototyping activities, make good use of various prototyping tools, and generate prototypes at different fidelities</td>
<td>Conduct common prototyping activities and make good use of various prototyping tools</td>
<td>Conduct common prototyping activities, have difficulty in using various prototyping tools</td>
<td>Have difficulty in conducting common prototyping activities and using various prototyping tools</td>
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<tr>
<td>Evaluate an interactive system through user studies</td>
<td>Design and conduct user studies and data analysis, make good use of various prototyping tools, and generate good design implications</td>
<td>Design and conduct user studies and data analysis, and make good use of various prototyping tools</td>
<td>Design and conduct user study and data analysis, have difficulty in using various evaluation tools</td>
<td>Have difficulty in designing user studies and conducting data analysis</td>
</tr>
<tr>
<td>An ability to communicate effectively with target users and different stakeholders in academia and industry</td>
<td>Explain HCI designs / applications to a general audience and handle questions, and make good use of multimedia</td>
<td>Explain HCI designs / applications to a general audience and handle questions</td>
<td>Explain HCI designs / applications to a general audience, have difficulty in handling questions</td>
<td>Have difficulty in explaining HCI designs / applications to a general audience</td>
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Text Book (Required)

  
  [http://www.theuxbook.net/](http://www.theuxbook.net/)

  
  

  
“Stay hungry. Stay foolish.”

- By Steve Jobs
Learning Aims

Conscious  Critical  Creative
Work for Today

• Join Slack and play with it
  – TA will send out an invitation to your UST email account before Monday
  – If you haven’t received any invitation by the end of Monday, please contact him.
  – If you prefer to use another email, please let him know before Sunday
  – The invitation may go into your spam/junk mail folder. Please check it before requesting for a new invitation
Questions?

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