Introduction to COMP4461: Human-Computer Interaction

Xiaojuan Ma  Fall 2019
About this Course

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

• TA
  – Taewook Kim (tkimam@connect.ust.hk)
  – Office hour: Tu 9:00 - 9:50AM (original lab time)

• Time and Location
  – Lecture: TTh 12:00pm – 1:20pm @ Rm 1410, Lift 27-28
  – Lab: 2 **in-class** lab sessions (see course syllabus: TA)
Course Website and Space

- Team Link: [https://comp4461.slack.com/](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/

• TA will provide some tips on how to set up your own page online
(1) Projects 60%

• P1: Designing Meaningful Interactive Ad 15%
  – Identify a sustainability campaign on campus
  – Initial wireframe design 5%
    • Ideate with the help of a tool called Metaphoraction
    • Can use wireframe tools e.g., [https://www.draw.io/](https://www.draw.io/)
  – Revised “interactive” video prototype 10%
    • Pitch your design in class for peer review
    • Articulate the targeted theme, design principles applied, and design decisions made
  – Keep a personal diary of project 1
  – Lab 1: Tutorial on Metaphoraction (on Slack)
(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: AR programming (in class)

• 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: robot programming (in class)  

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

- In-class, Tue Oct 15 (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 “Nudging”
- Length: 2~5 min
- Video Showcase
  - Final Screening on Nov 26 & 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
  – In-class exercises + peer review participation
  – 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>
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</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>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>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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<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>
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<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/)

  
Reference Book (Optional)

  https://www.elsevier.com/books/research-methods-in-human-computer-interaction/lazar/978-0-12-805390-4

  http://hcibook.com/e4/
“Stay hungry. Stay foolish.”

- By Steve Jobs
Learning Aims

Conscious  Critical  Creative
Work for Today

• Join Slack and play with it
  – There is a direct “join slack” link on Canvas
  – TA will confirm and verify membership by the end of the add-and-drop period (Sep 16)

• Create your own Portfolio Page
  – If you already have a personal website, great
  – If not, you can setup a personal page at HKUST
  – TA will provide further information on Slack (#lab1_web)
Questions?

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