

CS 4249: Revision

KAN Min-Yen

Week 12

Syllabus

First half:
Basics of HCI

Second half:
Phenomena and
Theories of HCI

Syllabus

Date	Content
Week 1 (14 Aug)	Course overview and Reacquainting with HCI
Week 2 (21 Aug)	Needfinding
Week 3 (28 Aug)	Mini-Team Pitches and Prototyping
Week 4 (4 Sep)	Selected topics in Evaluation
Week 5 (11 Sep)	Experimental Design
Week 6 (18 Sep)	Team presentations: Theories 1 <ul style="list-style-type: none"> GOMS and KLM by Xu Chunfeng, Tan Wei Young, Lim Jia Mei, and Breton Chan (Only available to class registrants in IVLE). Fitts' Law, and Gulard's Law of Bimanual Skill by Hui Shan Ang, Justin Soon, Kah Hong Ta and Violet Leong. Seven Stages of Actions, Levels of Processing by Zhou Wan Yi, Norzainum Bte Abdul Muin, Fong Yi Shyang, and Looi Wenhe Selective Attentional Theories by Lim Shun Fa, Wee Wei Jin, and Yu Zhiwei Ryan.
Recess Week	
Week 7 (2 Oct)	Team presentations: Theories 2 <ul style="list-style-type: none"> External and Distributed Cognition by Lam Wei Li, Phee Keng Kok and Tan Thai Lin Edwin. Situated Action, Plans and Scripts by Chan Jing Chuan Victor, Lee Tai Yun, Wah Hui Ning and Yong U-Wern Justin. Social Loafing and the Collective Effort Model by Chin Jiaying Estee, Chong Ming Xun and Aw Jia Hao Edwin.
Week 8 (9 Oct) <i>E-learning week for SoC</i>	Capstone 1: Human Processing and Abilities Video lectures on YouTube. <ul style="list-style-type: none"> Memory 1 Memory 2 Perception Motor Abilities
Week 9 (16 Oct)	Team presentations: Theories 3 <ul style="list-style-type: none"> Emotional Design Model by Lai Yit Hann, Chin Gui Pei and Goh Horng Bor. Pleasure Model by Low Guan Hong, Ng Joon Kiat Steve and Wong Yong Ming. Conversation Analysis and Theory by Balaji Preeti, Chang Jian Jong Byron, Chua Wei Kiat Rayner and Rimmalapudi Srimanjula Chowdary. Berry-picking, Information Scent and Information Foraging by Leong Kai Khee, Ng Yew Chong and Lu Tian Long.
Week 10 (23 Oct)	Capstone 2 - Cognitive Models and Affective Computing
Week 11 (30 Oct)	Guest lecture: TBA by NUS HCI Lab and Capstone 3
Week 12 (6 Nov)	Guest lecture: Brain Computer Interface by Ang Kai Keng (I2R) and Revision
Week 13 (13 Nov, no class due to Deepavali/Diwali)	Class postponed to reading week
Reading Week	Project presentation at the SoC Term Project Showcase on Tuesday 20 Nov at SR1

Videos

- Up to date (2011-2012) videos have been a large feature of this class.
- Make sure to review them for the final. They are an integral part of your learning.

- <http://youtu.be/nTFEUsudhfs>
Salman Khan: Let's use video to reinvent education
- <http://youtu.be/hc0c-5VUrOs>
Jeff Chapin: Design As a Tool for Better Conversations
- <http://youtu.be/C3rxCLhzmXY>
Bill Verplank: Interaction Design
- http://youtu.be/H0_yKBitO8M
Tom Wojec: Build a tower, build a team
- <http://youtu.be/U6PoUg7jXsA> Joshua Foer: Feats of memory anyone can do
- <http://youtu.be/Ud8WRAdihPg> Alan Kay on Learning and Computer Science
- <http://youtu.be/4oG0ZvkhzCY> An Introduction to Activity Theory
- <http://youtu.be/lfBpsV1Hwqs>
Jane McGonigal: The game that can give you 10 extra years of life
- <http://youtu.be/TYlh4MkcfJA>
Asch Conformity Experiment
- <http://youtu.be/2NENIXsW4pM> Eric Whitacre: A virtual choir 2,000 voices strong

This is not exhaustive list, but covers most of the major topics that we've touched on.

Pedagogical Goals

- Design an effective plan for evaluating a computing interface
- Execute a plan for evaluating a user interface and report the findings in an actionable way
- Improve time and project management skills in interface design projects
- Improve presentation and argumentative skills

Learning Outcomes

- Relate and explain why specific theories and phenomena of human computer interaction apply to a case study
- Design and execute a proper evaluation methodology for an interface design
- Relate and explain why specific theories and phenomena of human computer interaction apply to a case study
- Design and execute a proper evaluation methodology for an interface design
- Apply an appropriate statistical test to test an evaluative hypothesis about an interface
- Describe any hazards or difficulties of an evaluation plan with respect to human subject ethics
- Describe how an interface design meets or fails to satisfy a user requirement or specific user goal

