KAIST FALL 2025

CS473: INTRO TO SOCIAL COMPUTING

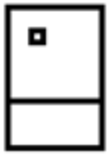
SOCIAL.CSTLAB.ORG

Class 01:
Introduction & Course Overview

2025.09.02

Joseph Seering

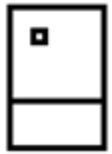
COMPUTER SCIENCE IS ABOUT MAKING TECHNOLOGY THAT IS...



Fast
Secure
Intelligent
Power-efficient
Error-free
Maintainable
Cheap
Small
Reliable
Standard-compliant
Modular

HUMAN-COMPUTER INTERACTION IS ABOUT MAKING TECHNOLOGY THAT IS...

useful
usable



HCI ACCOMPLISHES THE GOAL BY DESIGNING AND BUILDING BETTER...

CS374
Intro to HCI

interaction

SPECIALTIES IN HCI?

- Interaction Design/Service Design
- Ubiquitous computing
- Accessibility
- Privacy/Security
- Human-AI Interaction
- Social Computing

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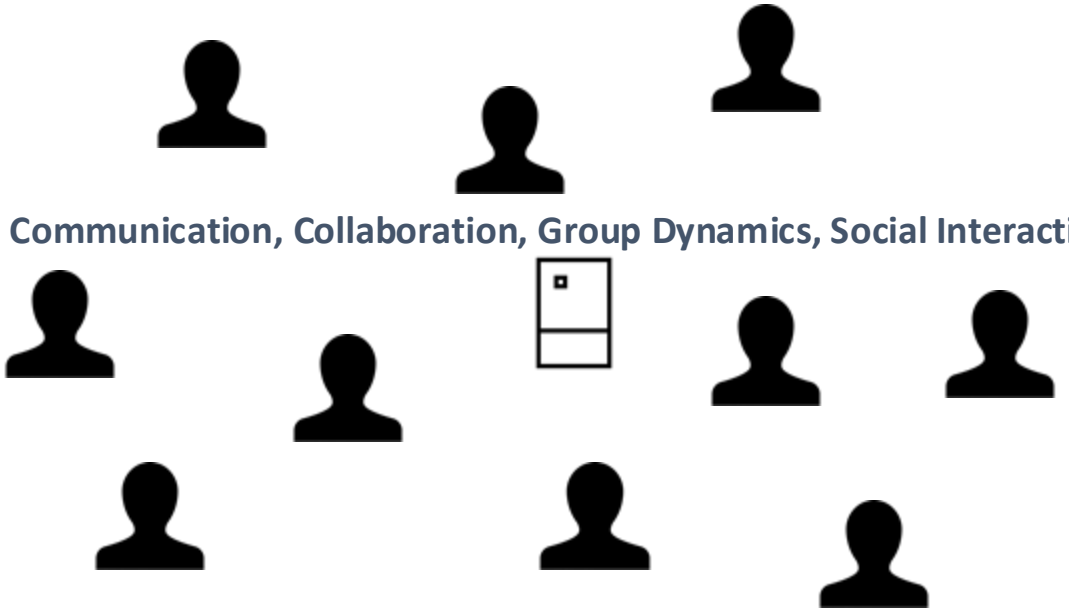
CS473
Intro to
Social Computing

HOW HUMANS WORK

Incentive, Motivation, Intelligence, Bias, Human Capabilities

HOW HUMANS WORK @ SCALE



LEARNING OBJECTIVE

“You’ll learn the skills to design
useful and usable systems that
support and augment social interaction at scale.”

WHAT IS SOCIAL COMPUTING?

- Computer systems that support and augment social interaction
  - Communication
  - Discussion
  - Peer Production
  - Innovation
  - Decision making
  - Information sharing
  - Collaboration
- Study and design of such systems

CHALLENGES IN SOCIAL COMPUTING

- How to build new systems that enable new forms of social interaction?
- How to support large groups of people to achieve collective, complex, large-scale goals?
- How to analyze and understand emergent behaviors from technical interventions?

MODERN SOCIAL COMPUTING ISSUES

- Misinformation / Fake News
- Filter bubbles / Echo chamber
- Moderation / Harassment
- Interaction with virtual agents
- AI-mediated communication
- …

Course Staff: Professor, TAs

WHO AM I? PROFESSOR JOSEPH SEERING

- 3rd year at KAIST, Assistant Professor/조교수
- Research Interests: HCI, Social Computing, Trust and Safety

- cstlab.org joseph.seering.org

- Postdoc, Stanford University
- Ph.D. + M.S., Carnegie Mellon University
- B.A., Harvard University

KAIST School of Computing

Lab Focus

Trust & Safety

Helping users learn, work, and play together
more **positively** and **productively** in online spaces

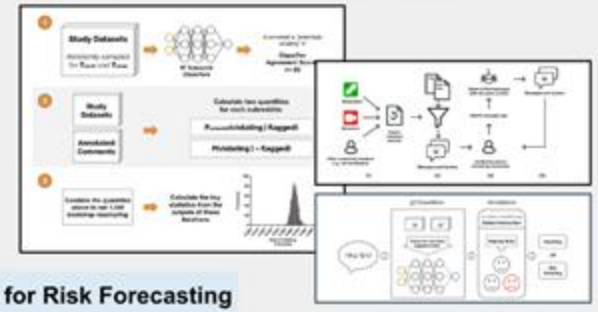
LLM Based Agent Social Simulations

Studying Abuses of AI on Social Platforms

Modeling risks and building datasets

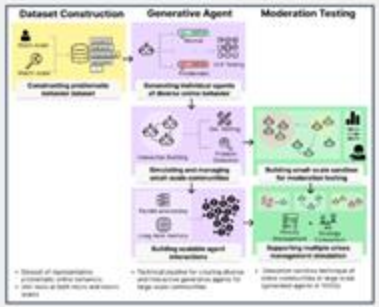
Identifying platform-specific factors

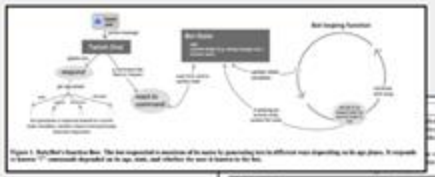
Modeling Risks Using Agents

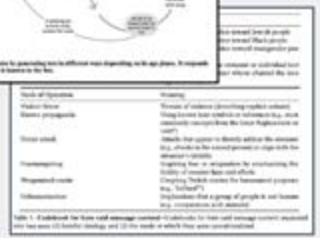


Designing Simulations for Risk Forecasting

Multi-agent architecture







Iterating on agents through community interactions

COURSEWARE

- Course website
  - social.cstlab.org
  - All course updates & assignments will be posted here.
- Campuswire: Reading responses and discussion/questions
  - Will mostly replace email, but if you have a private matter to discuss you can email cs473kaist@googlegroups.com

IN THIS CLASS, YOU WILL

- READ, CRITIQUE
- ANALYZE, REFLECT
- DESIGN, BUILD, TEST
- DISCUSS, SHARE

IN THIS CLASS, YOU WILL

- READ, CRITIQUE
  - Reading Response (for most weeks)
- ANALYZE, REFLECT
  - Exam (end of semester)
- DESIGN, BUILD, TEST
  - Design Project (throughout the semester)
- DISCUSS, SHARE
  - In-class, asynchronous discussion (anytime)

IN THIS CLASS, YOU WILL

- READ, CRITIQUE — 10%
  - Reading Response (for most classes)
- ANALYZE, REFLECT — 30%
  - Exam (end of semester)
- DESIGN, BUILD, TEST — 40%
  - Design Project (throughout the semester)
- DISCUSS, SHARE — 20%
  - In-class, asynchronous discussion (anytime)

ATTENDANCE AND PARTICIPATION

- In-class
  - Attend class. We will track this starting next week.
    - (3 free absences before your grade is penalized)
  - Complete the activities during class.
  - Please try to speak! Don't worry about quality of English.

- In design studios
  - Give feedback on other teams' designs.
  - We will track how much you participate in studios
    - Learning to give good feedback is an essential life skill!

READING RESPONSE

- You'll read or watch **one pre-class material per week** & submit questions.
  - Note: You will not get credit for duplicate questions!
- Some of these questions will be used as part of the final exam, and you'll receive extra credit if your questions are used.

FINAL EXAM

- Multiple choice + short answer questions
- Some will come from you, some will come from previous years' students (including Stanford students)
- **ALL** potential questions will be available by 1 week before the exam.

DESIGN PROJECT

- Design, build, and test your own social computing system.
  - **Real users** should be able to get **actual value** out of your system by the end of the semester!
- **SCOPE: Promote people's social interactions**
  - No monetary incentives involved
- Team of 3-4
- Unlike CS374, it's okay if other KAIST students are your target population, but I'll explain some restrictions in next class.

COURSE STRUCTURE

Design Project Structure:

0. (Team-finding)
1. Ideation
2. Pitch
3. Low-fi Prototype
4. High-fi Prototype
5. Final Presentation

Lecture Structure:

1. Starting a social platform
2. Theorizing user interactions
3. How users collaborate
4. User conflict
5. Evaluating Value
6. Measuring and Monitoring
7. Emergent problems
8. Managing a social platform
9. Human-AI Interaction
10. Social Simulations

TAKEAWAYS FROM TODAY

- This course is about principles, techniques, & methods for supporting social interaction with computing.

- We will talk a lot about what makes social applications successful.

BUT... CAUTION:

- This is an **upper-level class** in the School of Computing.
- In this class, you will be **required to develop** a (fairly basic, but functional) social application.
- You will also be required to do (some) **user research**, getting feedback from users about your application.
- The majority of your effort in this class will be in **group work**. The individual components are relatively small in comparison.

TAKEAWAYS FROM TODAY

- I want you to succeed and learn.
  - It's not really about evaluating where you are at the end of the course.
  - But you have to do your part: active learning.
  - You have to speak up, otherwise you won't learn.

- Please ask interesting questions!

TODO ITEMS FOR YOU

- Visit the course website
  - social.cstlab.org
  - Course updates and materials
- Complete the course sign-up form NOW
  - You're not officially registered unless you fill this out. Due 9/5 (Fri).
- Visit Campuswire (link on website)
  - All announcements, Q&A, & discussions
- Start thinking about your project team. You'll need to form teams (3-4 people) by late next week!