Literature Review

CS6501: Human-Computer Interaction

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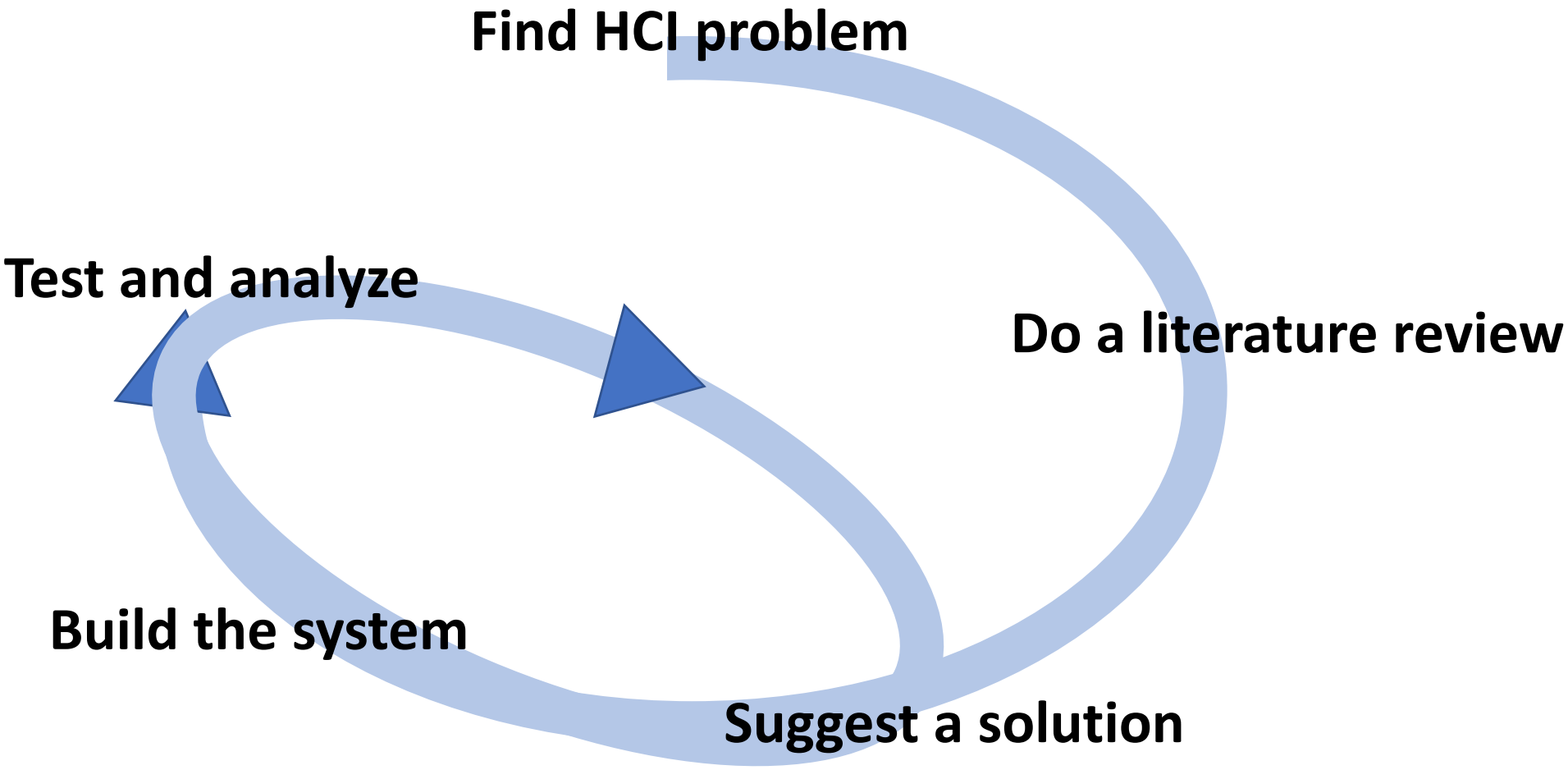
Fall 2020, Department of Computer Science

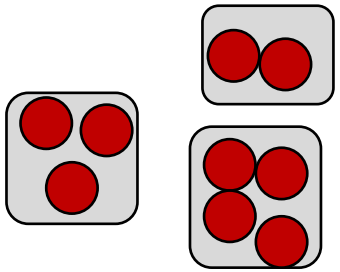
UNIVERSITY of VIRGINIA | SCHOOL of ENGINEERING & APPLIED SCIENCE

Conducting HCI Research

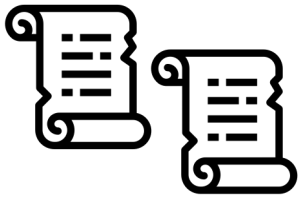


Course Project: Timeline

Find HCI problem
~ Sep 8



Team formation
Sep 9



literature review

Proposal
~ Sep 22

Formative study
~ Oct 13

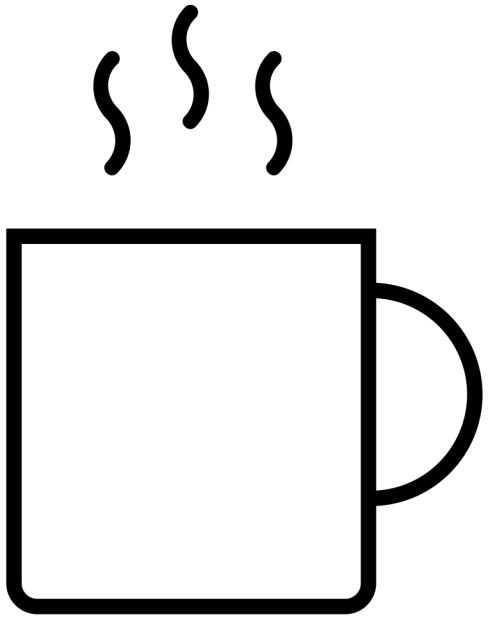
Build system

Progress Presentation
(Oct 19)

User study

Final Presentation
(Nov 18)

Find a Problem



I start a day with a cup of coffee

I make coffee at home every morning

And it tastes AWFUL

Analyze the Problem

1	2	3	4	5
Grind Coffee Beans	**Put it in the portafilter**	**Apply pressure with a tamper**	**Use an espresso machine to brew**	**Your coffee**

It’s very important to apply the right amount of pressure but I have no idea what the right amount of pressure is!

Refine the Problem

The current portafilter doesn't show how much pressure I need to apply, and it's ruining many people's mornings

Do a Literature Review

- **Understand the context**
- **Understand the area**
- **Understand approaches**

Do a Literature Review

- **Understand the context**
- **Understand the area**
- **Understand approaches**

- How much pressure is good? – an experiment on the relationship between tamping pressure and coffee taste, CHI 2025
- Half of us aren't doing it right – a survey on New York Times
- A guide to good coffee by Famous Barista

Do a Literature Review

- **Understand the context**
- **Understand the area**
- **Understand approaches**

- CoffeeBot: A Tamping Robot that Applies Exact Pressure using AI and Soft Robotics, CHI 2030
- CoffeeUber: A Crowdsourcing Approach for Coffee Tamping, CSCW 2029
- YouBarista: A Platform for Coffeemaking Learning
- CoffeeAnalyzer: Visualizing Final Coffee based on the Applied Pressure on the Portafilter

Do a Literature Review

- **Understand the context**
- **Understand the area**
- **Understand approaches**

- SteakSense: Color-Changing Pan For a Perfect Steak
- HammerItRight: Pressure- and Force- sensing Hammer
- Fabricating Small Pressure-Sensing Devices

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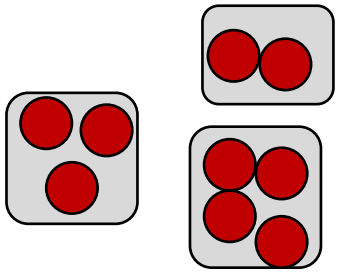

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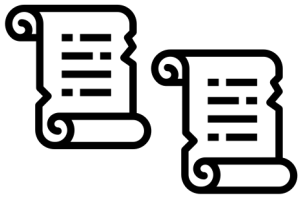

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Course Project: Team Formation

- You will find teammates to solve the problem together
- Team size: 3-5 students / team
- Create your team channel on Slack
  – this will be used until the semester end
- Introduce yourselves ☺

Course Project: Team Formation Report

- One report per team
- Should include
  - Team Name
  - Team Member Names
  - HCI Problem
- Team Formation Report is Due Next Tuesday (11:59 pm)

Web Programming Tutorial

- Aashik will give three web programming tutorial sessions
- Optional but **highly recommended** if you are new to web programming
- Wednesdays at 7pm on Zoom → **TODAY!**
- Topics
  - Sep 2: HTML and CSS
  - **Sep 9: JavaScript**
  - Sep 16: Database

Have Visual Studio Code installed on your computer

Thank you!