HCI: What makes HCI design challenging?

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I’m going to:

- Talk about how your brain works
- What that means for how humans interact with technology.
- The types of skills we are going to teach you in this class that help you use, rather than fight, how all our brains work.
Your brain can’t actually “see” the world

• Your brain is trapped in a skull.
• It has five senses connected to it that feed in data.
• It uses the senses to gather information about the world.
• It uses those senses, along with memory, to construct an understanding of what the world looks like.
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Processing data also takes time

- Your brain is very fast, but it cannot process data instantly.
- So it builds a “mental model” that lets it reason about not only the present but also the future.
- This model is strongly biased by past experiences and memories.
Mental models:

If the man drops the ball while running, what path will it take?
Your brain builds models and then uses them to make very fast decisions about the world.
Good design supports fast thinking and allows users to interact without reading.
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Ok, so we just need to make some designs that support fast thinking. That’s easy, piles of apps do it already.
The problem

• Most people in this class are digital natives.
• Your brains have been trained to process user interfaces FAST.
• Good HCI designers have learned how to:
  • Slow down.
  • Think about how others will process.
  • Think about why something is hard to use.
  • Design so that other people can do fast interaction.
In this class
What is wanted / needed

Analysis

Prototype

Design

Implement and deploy

Design process
Class will step through designing a UI

- Design requirements
- Mockups
- Fast feedback
- Evaluation
- UI design
- Refining
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