

CS122 Class 18: Critical forms of design



Tree digester by Dunne & Raby as part of their Foragers speculative design project. 2009

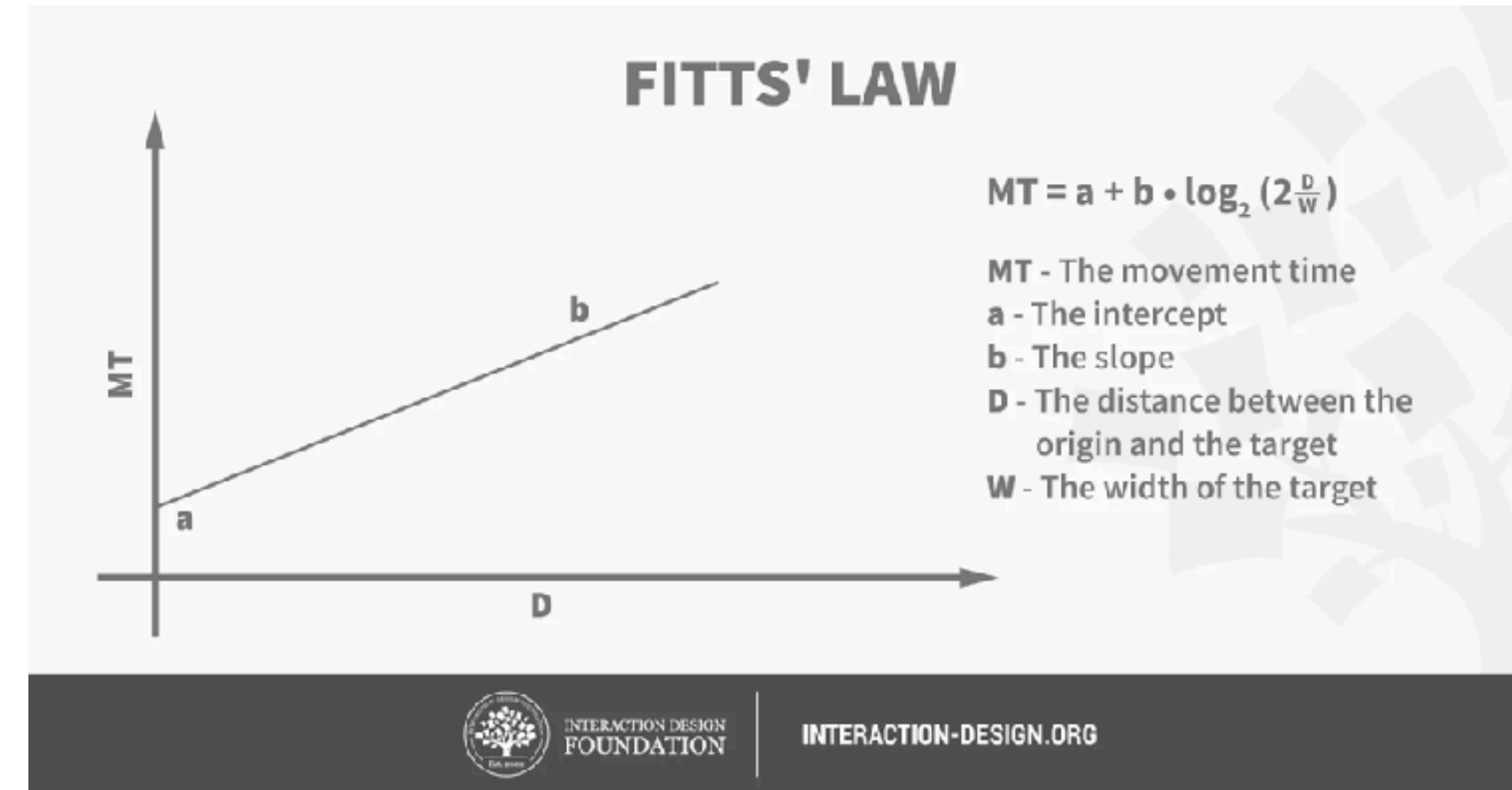
Class 18 agenda

- Zipcrit
- Lecture: Waves of HCI & critical design
- Seminar: uncomfortable interactions & critical design
- Studio: design noir

HCI history

First, historic context: waves of HCI

- First wave: 1970-1980s
- Influenced by cognitive science & human factors
- Model driven: Fitt's law, Model Human Processor
- Computers were relatively new things, so let's "scientifically" figure out how people can optimize using them



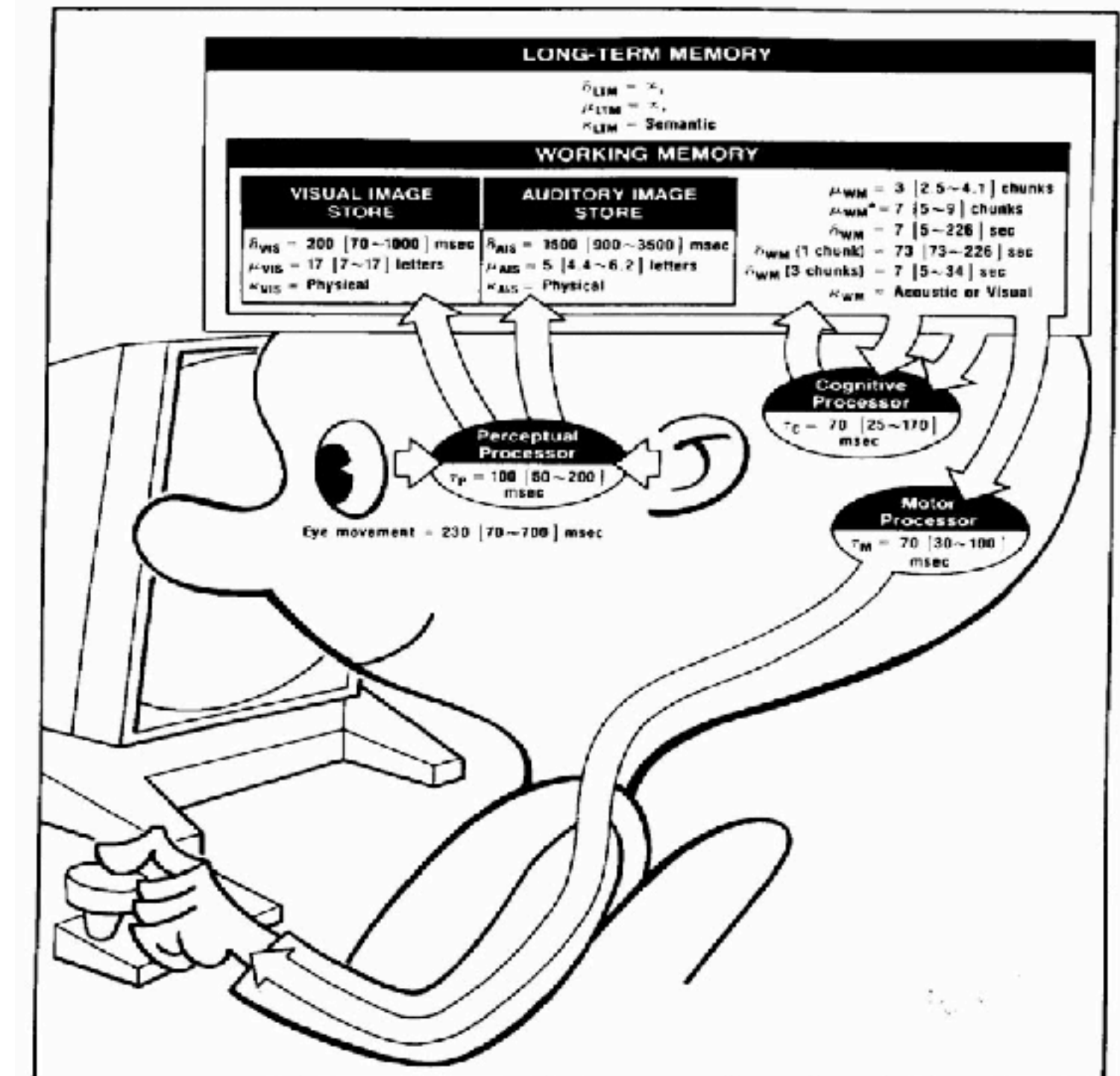
Paul Fitts



Stuart Card

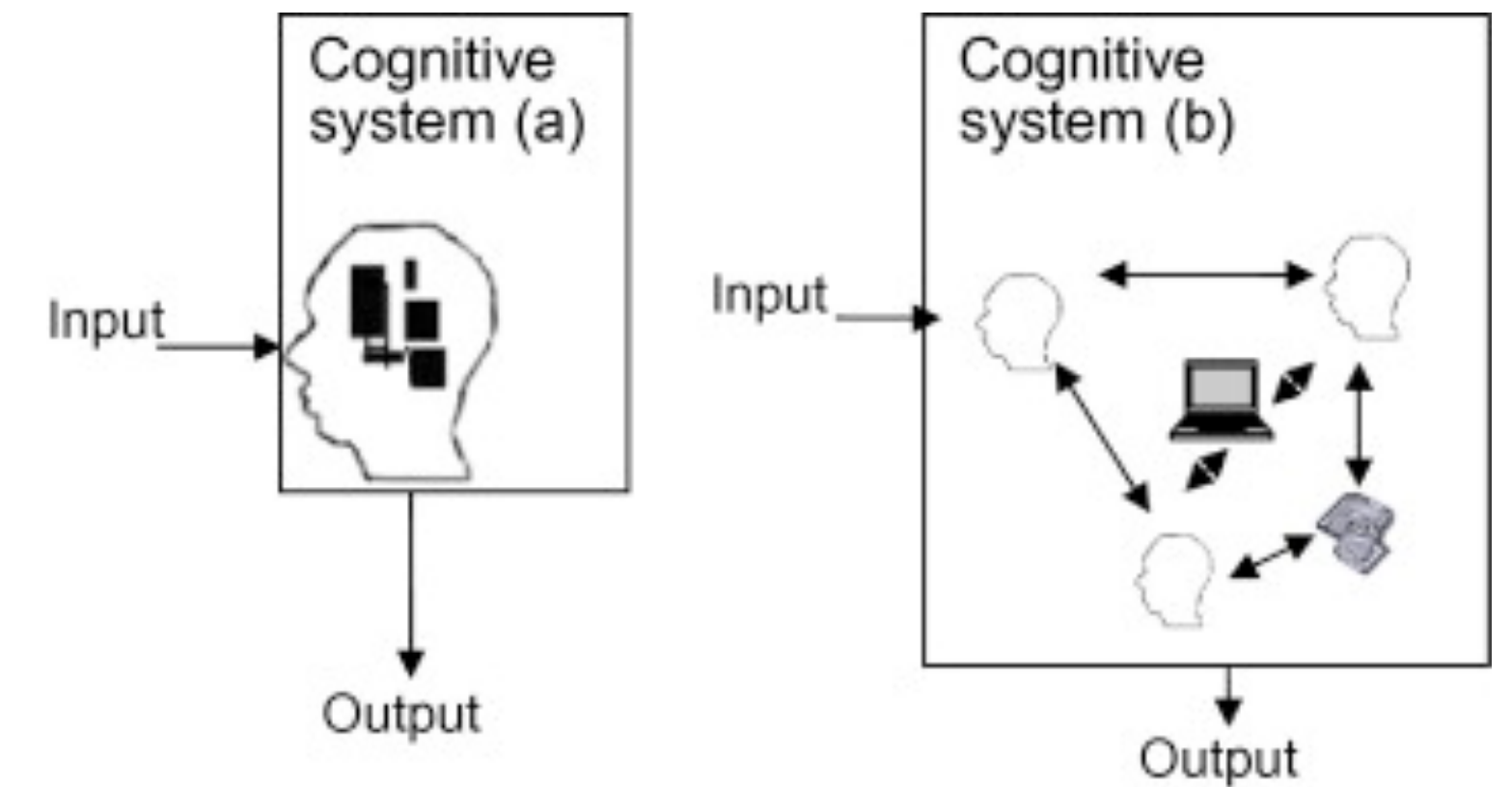
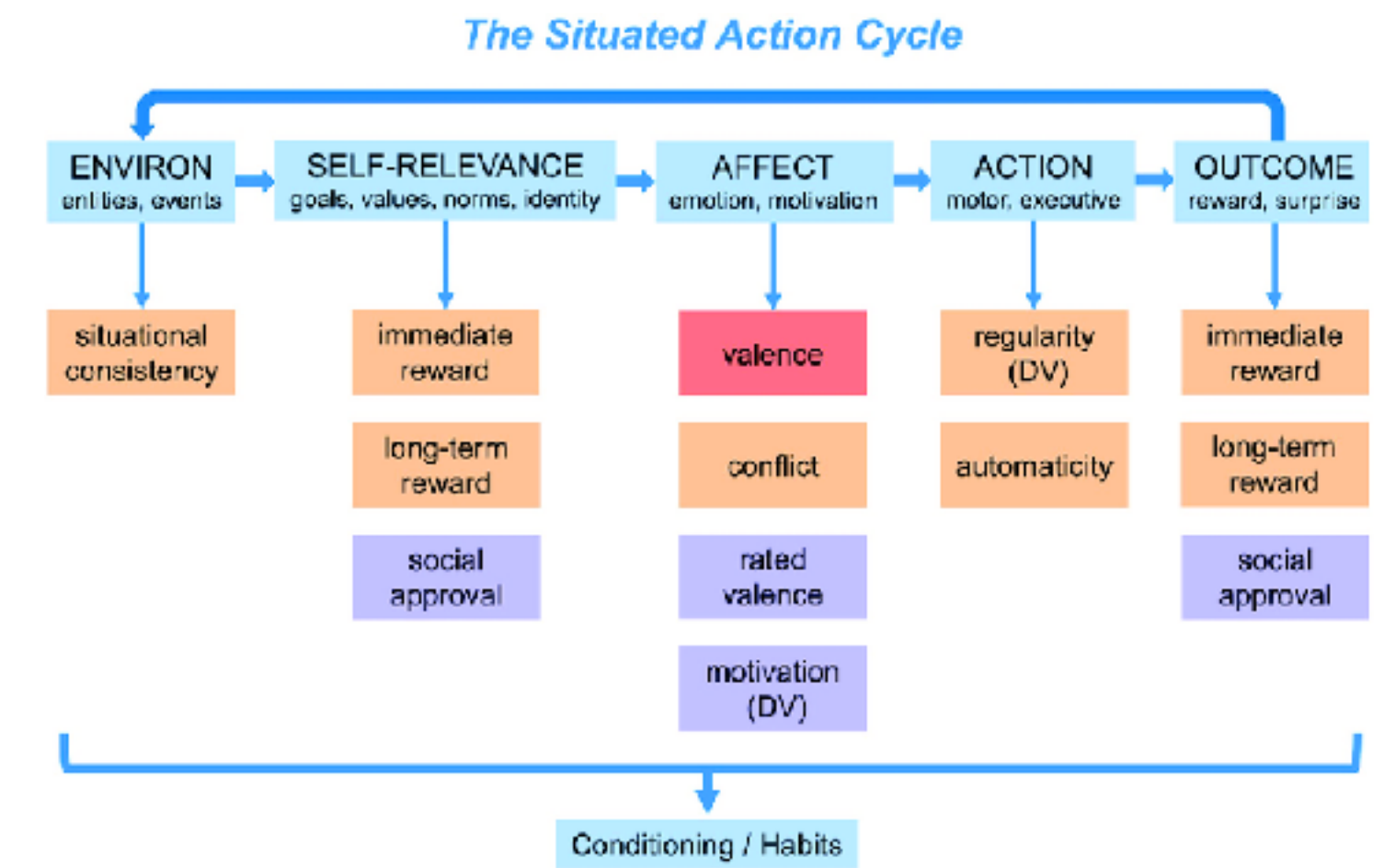


Allen Newell



Second wave

- Second wave: 1990s-2000s
- Focused on computers being used collaboratively in the work place
- Used theories that emphasized *context*: situated action, distributed cognition, activity theory
- Adding design methods that also emphasized **context** like contextual inquiry, participatory design



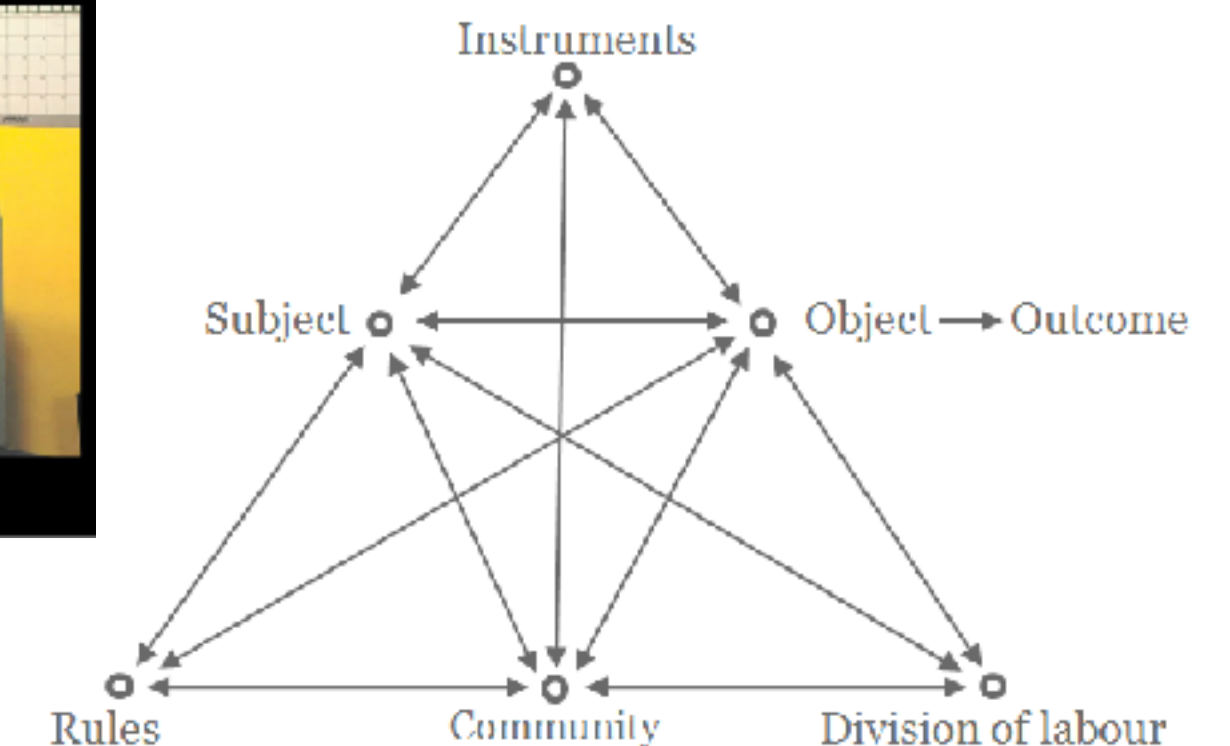
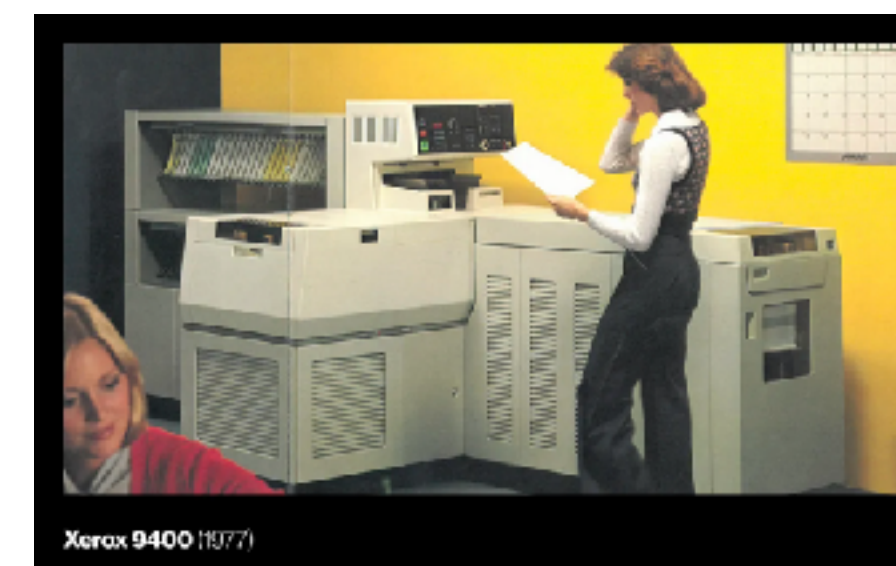
Edwin Hutchins



Susanne Bødker

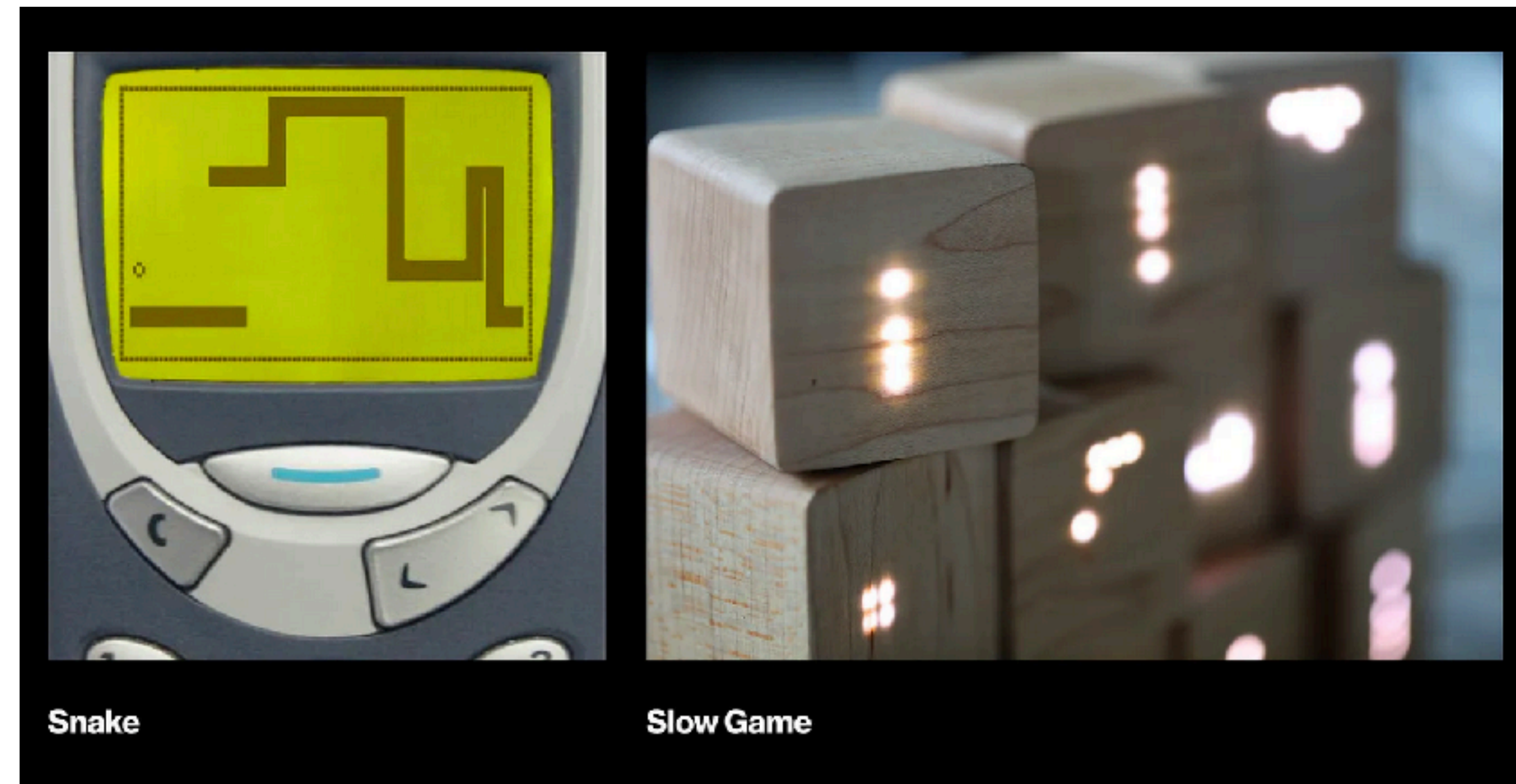


Lucy Suchman



What is research through design?

- Use design methods to produce research
- Lets you do “fun things” (like being creative, making crafts, making tools) to produce academic knowledge
- Usually results in detailed case studies of the object you designed, reflexive approach
- Beyond concerns about *usability* and *professional support tools*, supports third (fourth?) wave HCI goals of social justice, value-oriented design, etc.



Example: Slow Game
(snake but the pixel moves once every 18h)

<https://dl.acm.org/doi/10.1145/3173574.3173651>

What is critical design?

- Critical design is a form of *research through design*
- Uses design methods to explore ethics, surface hidden agendas and values, and explores alternate design values
- “Make consumers more critical about their everyday lives, and in particular how their lives are mediated by assumptions, values, ideologies, and behavioral norms inscribed in designs.” - founders Dunne & Raby, 2001
- Critical design “needs to be closer to the everyday, that’s where the power to disturb comes from.”



How is EyeCam a form of critical design? Compare with your 3D printing for protest object. How do the affordances of an object change its potential to be critical?

What are related areas of knowledge?

- Feminist design
 - *Feminist HCI: taking stock and outlining an agenda for design* by Shaowen Bardzell
- Speculative design
 - *Speculative Everything: Design, Fiction, and Social Dreaming* by Dunne & Raby
- Design justice
 - *Design Justice Community-Led Practices to Build the Worlds We Need* by Sasha Costanza-Chock
- Postcolonial design
 - *Ubicomp's colonial impulse* by Dourish & Mainwaring
- Critical race theory + design
 - *Critical race theory for HCI* by Ogbonnaya-Ogburu et al.

Seminar:
Uncomfortable & feminist
design

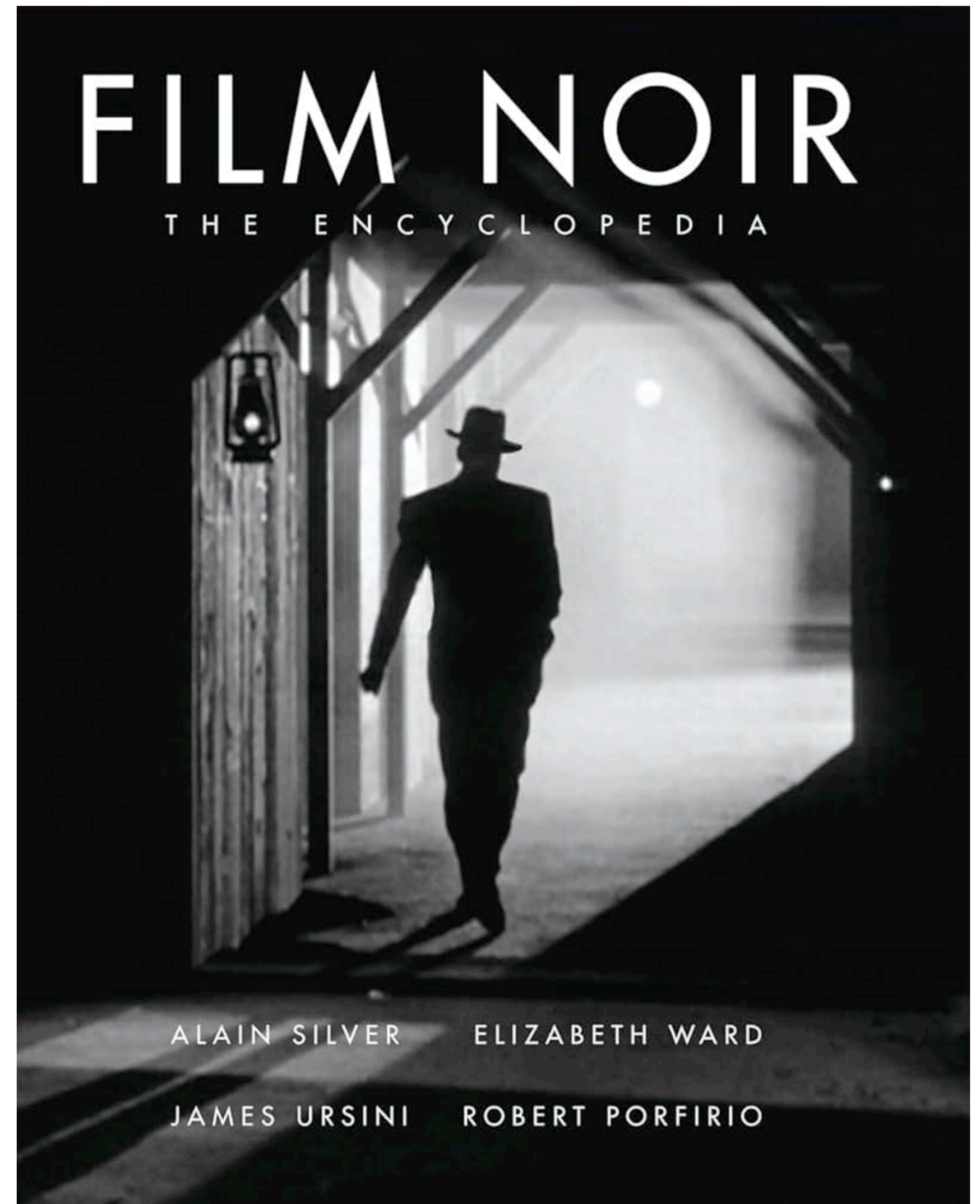
Studio: Design Noir

- Most HCD design classes are only focused on designing for “good” outcomes: but let’s play with the dark, the ugly, the anti-social

- 1. **Loss** Jan Apr Jul Oct
- 2. **Wastefulness** Feb May Aug Nov
- 3. **Guilt** Mar Jun Sep Dec

Ideally, 2 groups per topic

<https://cs.pomona.edu/classes/cs122/assignments/as5-old/>



Studio: Design Noir

- 1. **Loss**
 - “Design a tool or object that facilitates emotions of **loss**, abandonment, and loneliness. Potential intended users include someone who just got dumped, someone who is grieving death, or someone being left behind.”
- 2. **Wastefulness**
 - “Design a tool or object that encourages users to be as **wasteful** as possible. Potential sites of waste include garbage, energy, time, other’s time, money, the environment, natural resources, clothing. Your design can be for collectives (for instance, maybe a pro-waste game) or for individuals.”
- 3. **Guilt**
 - “Design a tool or object that purposefully instills a sense of **guilt** in the user. Consider how the design can encourage users to obsess over trivial missteps, increase their sense of self-hatred and anxiety, or remind them of how they fail to meet expectations.”
- First, spend 5 min individually brainstorming
- Everyone in group gets a chance to share out their idea, build on top of each other, come to a consensus
- Deliverables: A quick prototype of the tool/object & simple storyboard sketch on the whiteboard
- 12:05 - Share out from every group

CONSTRAINT: NO APPS!!!!

Class 18 recap

- TODO next week
 - Mon: RtD RRs, seminars from Cris & Ivyer; Jack G & Francisco
 - Weds: WoZ Figma prototype testing in class!
 - Next next Monday: PM5 A webpage of one's own