Critical perspectives

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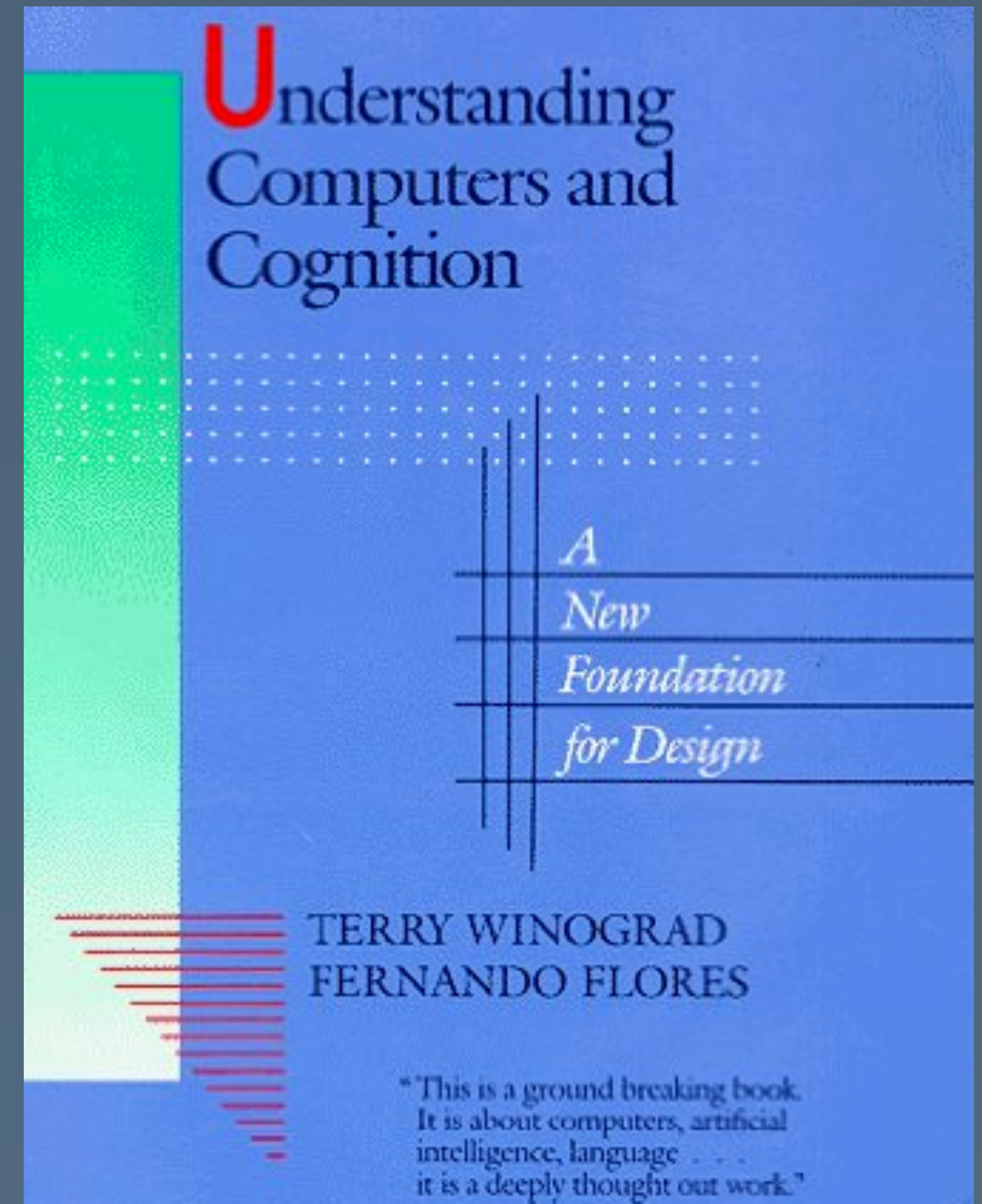
CS 376

Today

- Short lecture 3:30-4
- Discussion 4-4:40
- Back here for wrap-up 4:45-5:15

Why we must be reflective

- We cannot blindly design ourselves into a bright future. What if that bright future is not what we think it is?

- HCI was, in many ways, born out of a critical perspective on artificial intelligence [Winograd and Flores 86]

Critical theory

What is 'critical' here?

- Not 'critical' as in being mean, or 'critical' as in a crit.

- **Critical theory** aims to be reflective about our assumptions and what they might imply.

- A strong critical HCI paper reorients us toward important problems, and pushes us to cast aside previous assumptions

Third wave HCI [Harrison et al., '07; Bødker '06]

- First wave: man-machine fit, human factors
- Second wave: understanding cognition, groups working together in the context of applications
- Third wave: non-work, non-purposeful, non-rational

- But are our techniques up to the task of the third wave?
  - e.g., usability studies? design thinking?

Postcolonial Computing

[Irani et al., 2010]

- Is our drive to design 'liberation technology' or 'ICT for development' (ICT4D) just reinforcing old colonial legacies?
  - "We're going to go help the fairly poor Indian resident who are getting water from the river by giving them our new water purifier system!"

- Alternative points of view: might these people be teaching us design lessons, instead?

Yesterday's tomorrows

- Ubiquitous computing is driven not by a technological goal, but by a shared vision of the future.
- However, this vision is a future in 1991.
- What should the future of ubicomp be, from today's perspective?
- Bell and Dourish's proposal: messiness

Bell and Dourish. Yesterday's tomorrows: notes on ubiquitous computing's dominant vision. Personal and Ubiquitous Computing '06.

Feminist HCI

[Bardzell 2010]

- Feminist theory often aims to emphasize the roles of currently marginalized groups in society

- Step back: who is the "ideal user" of your design? Is that person who you really want it to be?

Critical design
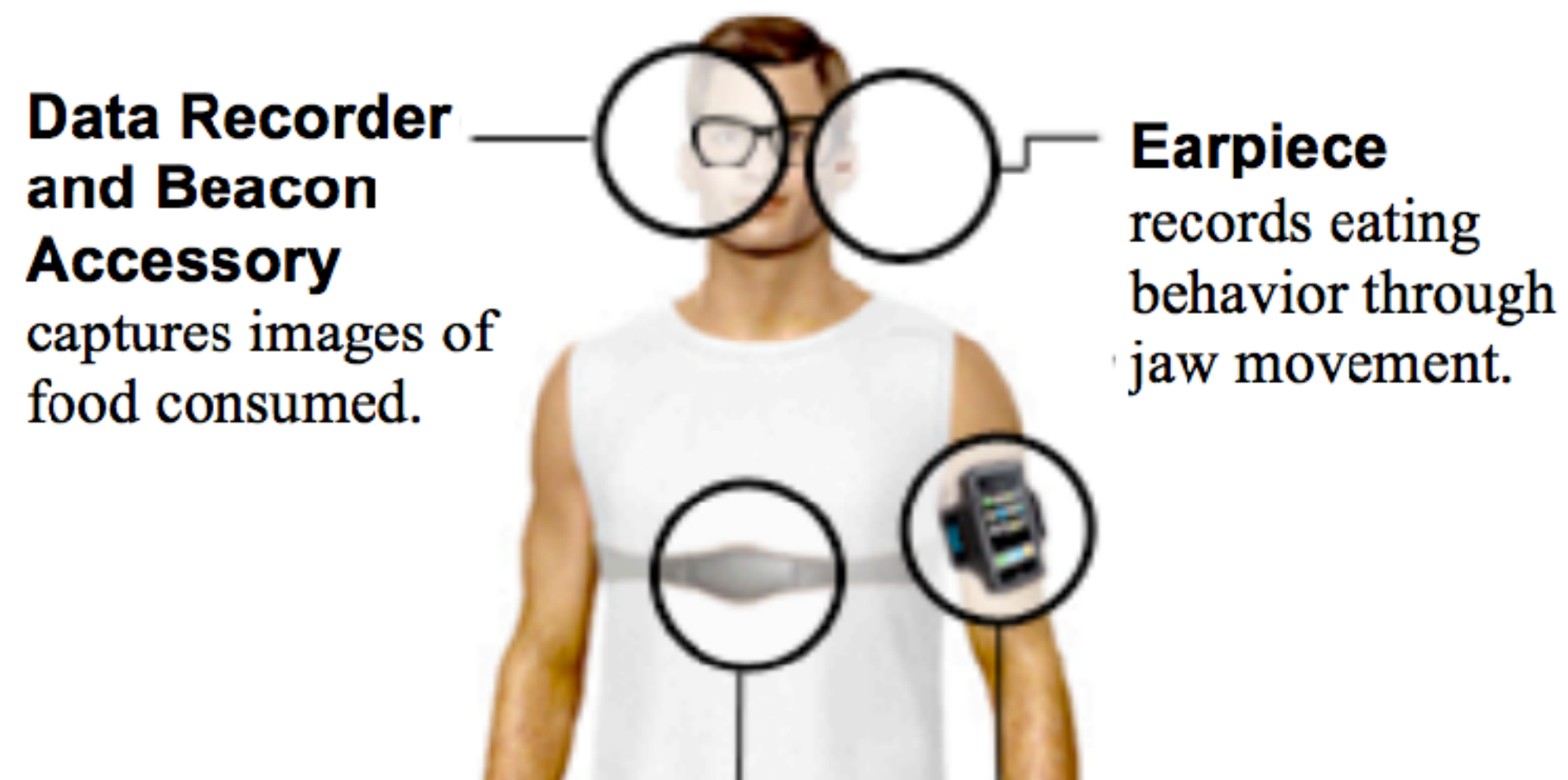
Design to challenge us

[Dunne and Raby, 2001; Bardzell and Bardzell, 2013]

- Use design fiction to cause us to re-evaluate our assumptions of what design can and should be doing
- Sputniko's Menstruation Machine
  - Electrodes for pain, fake blood…
  - Its question: how might design challenge our gender norms and identities?

Fit4Life [Purpura et al., CHI 2011]

- Critique of today's persuasive and behavior-change technology

- Computer vision to estimate calories, LED beacon to tell others how you're doing, "metabolic lancet" to analyze blood, hourly Facebook posts if you're not tracking your behavior

Data Recorder and Beacon Accessory captures images of food consumed.

Earpiece records eating behavior through jaw movement.

Data Recorder and Beacon Accessory blinks to elicit help from others in sticking to Fit4Life plan.

Earpiece provides information and advice based on individual behavior.

12

Discussion rooms

Rotation	Littlefield 107	Littlefield 103
a	12	34
b	24	13
c	14	23
d	34	12
e	13	24
f	23	14