IN4MATX 295: Personal Informatics

Class 17: Critical Perspectives   Daniel Epstein

Quantifying the body: monitoring and measuring health in the age of mHealth technologies

- Deborah Lupton

- Critical Public Health

Deborah Lupton

- University of New South Wales, Sydney, Australia

- Digital Sociologist

- Known primarily for writing about the intersection of health, technology, and the self

Fit4life: the design of a persuasive technology promoting healthy behavior and ideal weight

- Stephen Purpura

- Victoria Schwanda

- Kaiton Williams

- William Stubler

- Phoebe Sengers

- CHI 2011

- Class project for a critical design course taught by Phoebe?

Stephen Purpura

- Senior Managing Director at an undisclosed company

- Founded a few startups which got acquired

- Primarily did/does big data work to improve web search

- Dissertation: Search Frameworks for Annotation and Learning of Subjective Topics for Heterogenous User Groups

Victoria Schwanda (Sosik)

- Head of Consumer Insights UX research at Verizon

    - As of January, previously UX at Google

- Dissertation: Designing systems to leverage social media content for engagement with positive interventions

Kaiton Williams

- Investments at Impact America, a VC for products which support typically underrepresented communities

- Dissertation: Making Things Together: The Island & The Valley, Selves & Software, Here & There

William Stubler

- Digital Signal Processing Engineer, Rincon Research

- Masters in Engineering, ECE at Cornell

Phoebe Sengers

- Information Science / Science & Technology Studies, Cornell

- Integrates ethnography, history, and design to explore rural, working-class, and Global South experiences with technology

  - Trace entanglements between people and data

  - Speculate about alternative pasts and futures

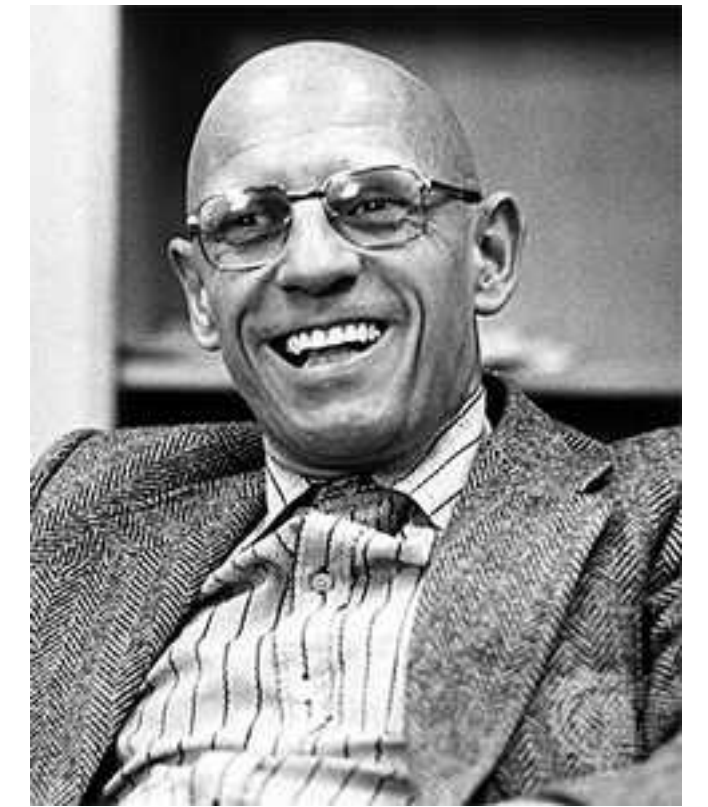- Reflective design; technologies reflect unconscious assumptions about culture and values

Prior and related literature

- "Know thyself"

- Care of the self

- "Tracking for Health" survey

- Persuasive system design

- Critical design

"Know Thyself"

- A saying/motto from ancient Greek philosophy

- Adopted into "self-knowledge through numbers" motto of the quantified self movement

Care of the self

- "an exercise of the self on the self by which one attempts to develop and transform oneself, and to attain to a certain mode of being"

- Michael Foucault, best known for the impact of power relations

  - Self-quantification or externally-motivated quantification imposes power, which people need to reflect on

- Kou et al. do a better job contextualizing this than I can: https://dl.acm.org/doi/abs/10.1145/3290605.3300711

Tracking for Health

- 2013 survey on what U.S. adults track about themselves

- Useful for showing the ubiquity of tracking practices

  - 69% of U.S. adults track any health indicator

  - 21% of U.S. adults use technology to track their health data

  - Now probably undercounts people who track

- https://www.pewresearch.org/internet/2013/01/28/tracking-for-health/
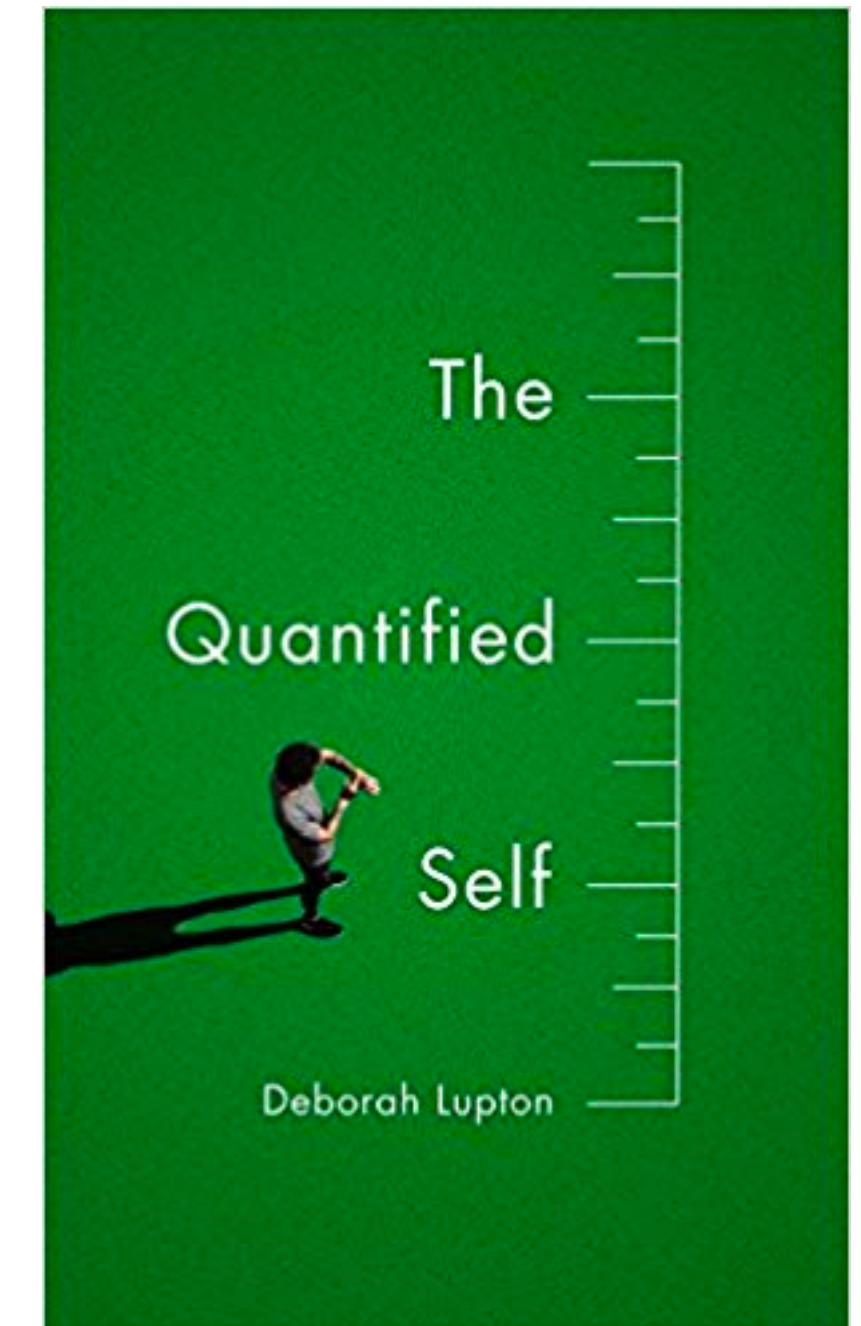
Persuasive system design

- Principles which technology can encode for persuading people to make behavioral changes

- For example: praise

  - "System should use praise via words, images, symbols, or sounds as a way to provide user feedback information based on his/her behaviors"

- https://aisel.aisnet.org/cgi/viewcontent.cgi?article=3424&context=cais

Critical design

- A speculative design method where designers imagine a future design to surface the ethical challenges it may promote

- https://dl.acm.org/doi/abs/10.1145/2470654.2466451

Later work

- The Quantified Self

  - Summative piece, takes arguments like this to outline how self-tracking is being repurposed for commercial, governmental, managerial, and research purposes

Later work

- Fit4Life still gets widely cited as a system which actually exists

  - When I checked a few years ago, half of the top 20 citations assume it exists

- What does this say?

  - The principles in Fit4Life are incredibly believable

  - As researchers, we need to be more careful about our citations…

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