

17-808 SOFTWARE ENGINEERING RESEARCH

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Ethics of Software Engineering Practice

Readings

- [W80] A summary of Langdon Winner's "Do Artifacts Have Politics". Available here: <http://pne.people.si.umich.edu/kellogg/069a.html>
- [B20] Biddle, J. B. (2020). On predicting recidivism: epistemic risk, tradeoffs, and values in machine learning. *Canadian Journal of Philosophy*, 1-21.
- [BPH+16] Burnett, Margaret, Anicia Peters, Charles Hill, and Noha Elarief. "Finding gender-inclusiveness software issues with GenderMag: A field investigation." In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, pp. 2586-2598. 2016.

Optional readings:

- Gregory Travis. *How the Boeing 737 Max Disaster Looks to a Software Developer*, 2019
<https://spectrum.ieee.org/how-the-boeing-737-max-disaster-looks-to-a-software-developer>

Notes on the readings

The assigned [W80] is a short summary of a longer article available in the files section; you can read the original article, but are not required. For the summary pay special to the implications: what are the differences between "yes or no" decisions vs "special features in the design or arrangement of a technical system" questions? Who makes each?

For [B20] focus on the design decisions made and the tradeoffs those decisions entail between different values and risks. Whose values are represented in these design decisions? Why? The technical details inform the discussion but are secondary.

For [BPH+16] pay attention to the theory behind the personas, and the participant team's reactions to using them.

Question for discussion (post answers in the forum on Canvas)

1. Consider Apple's new software which scans your iPhone photo library for fingerprints of child pornography as recently widely reported in the news (e.g. [NPR](#)). In about one or two paragraphs, discuss the political nature (using Winner's broader idea of the word "politics") this technology intended to solve a societal ill. In that discussion, we recommend to consider arguments by [W80] (e.g., whether to create a new technology and how it will be implemented), tradeoffs along the lines of the recidivism reading [B20], and the framework of wicked problems discussed in a previous module. Offer constructive criticism to one other of your classmates's arguments in a response post
2. Spend about 30min applying two different gender mag personas to a smartphone app of your choice, the most recent piece of software *you* built, or a website. In a short post to Canvas, report about the experience and any "gender inclusiveness bugs" you find.