Academia

Objectives

- Review the four principles of ethical research in a digital age
- Define informed consent, informational risk, and privacy
- Assess the potential benefits and harms of using deep learning to predict sexual orientation
- Consider the potential impact of research using big data
- Define false discovery and discuss its relevance to contemporary scientific publications

Assigned readings

- "Chapter 6: Ethics." *Bit by Bit*.
- Deep learning to predict sexual orientation
  - Wang, Y., & Kosinski, M. (2018). Deep neural networks are more accurate than humans at detecting sexual orientation from facial images. *Journal of personality and social psychology*, 114(2), 246.
  - AI Can't Tell if You're Gay... But it Can Tell if You're a Walking Stereotype.
  - Authors' Note: Deep neural networks are more accurate than humans at detecting sexual orientation from facial images
- Anderson, C. (2008). The End of Theory: The Data Deluge Makes the Scientific Method Obsolete. *Wired*.
- Boyd, D., & Crawford, K. (2011, September). Six provocations for big data. In *A decade in internet time: Symposium on the dynamics of the internet and society*.
- Caliskan, A., Bryson, J. J., & Narayanan, A. (2017). Semantics derived automatically from language corpora contain human-like biases. *Science*, 356(6334), 183-186.
- Ioannidis, J. P. (2005). Why most published research findings are false. *PLos med*, 2(8), e124.

Optional readings

Response paper prompt

In 2018, the *Journal of personality and Social Psychology* published a controversial article describing a series of tests using deep learning to predict sexual orientation from individuals' photographs.[1] Assume you are the editor who received this article and had to decide whether or not to publish this paper. Given our past discussions in this course about ethical behavior and the responsibilities of academics to conduct their research under ethical standards, would you allow this paper to be published?

[1] See assigned readings above.