# "AI Ethics Then & Now: A Look Back on the Last Five Years" Selected Bibliography

Willie Costello, August 27, 2020

# The ethics of the outputs

Fairness of the algorithm

- Barocas, Solon, and Andrew D. Selbst. "Big Data's Disparate Impact." *California Law Review* 104, no. 3 (2016): 671–732.
- Mitchell, Margaret, Dylan Baker, Nyalleng Moorosi, Emily Denton, Ben Hutchinson, Alex Hanna, Timnit Gebru, and Jamie Morgenstern. "Diversity and Inclusion Metrics in Subset Selection." *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society*, February 7, 2020, 117–23. https://doi.org/10.1145/3375627.3375832.
- Verma, Sahil, and Julia Rubin. "Fairness Definitions Explained." In *2018 IEEE/ACM International Workshop on Software Fairness (FairWare)*, 1–7, 2018. https://doi.org/10.23919/FAIRWARE.2018.8452913.

# Fairness of the use

- Agre, Philip E., "Your Face Is Not a Bar Code: Arguments Against Automatic Face Recognition in Public Places" (2001) https://pages.gseis.ucla.edu/faculty/agre/bar-code.html
- Buolamwini, Joy, and Timnit Gebru. "Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification." In *Conference on Fairness, Accountability and Transparency*, 77–91, 2018. http://proceedings.mlr.press/v81/buolamwini18a.html.
- Eubanks, Virginia. *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor.* St. Martin's Publishing Group, 2018.
- Prabhu, Vinay Uday, and Abeba Birhane. "Large Image Datasets: A Pyrrhic Win for Computer Vision?" *ArXiv:2006.16923 [Cs, Stat]*, July 23, 2020. http://arxiv.org/abs/2006.16923.
- Raji, Inioluwa Deborah, Timnit Gebru, Margaret Mitchell, Joy Buolamwini, Joonseok Lee, and Emily Denton. "Saving Face: Investigating the Ethical Concerns of Facial Recognition Auditing." *ArXiv:2001.00964* [Cs], January 3, 2020. http://arxiv.org/abs/2001.00964.
- Selbst, Andrew D., Danah Boyd, Sorelle A. Friedler, Suresh Venkatasubramanian, and Janet Vertesi. "Fairness and Abstraction in Sociotechnical Systems." In *Proceedings of the Conference on Fairness, Accountability, and Transparency*, 59–68. FAT\* '19. Atlanta, GA, USA: Association for Computing Machinery, 2019. https://doi.org/10.1145/3287560.3287598.

# The ethics of the inputs

## Documenting datasets

- Bender, Emily M., and Batya Friedman. "Data Statements for Natural Language Processing: Toward Mitigating System Bias and Enabling Better Science." *Transactions of the Association for Computational Linguistics* 6 (December 1, 2018): 587–604. https://doi.org/10.1162/tacl\_a\_00041.
- Gebru, Timnit, Jamie Morgenstern, Briana Vecchione, Jennifer Wortman Vaughan, Hanna Wallach, Hal Daumé III, and Kate Crawford. "Datasheets for Datasets." *ArXiv:1803.09010* [Cs], March 19, 2020. http://arxiv.org/abs/1803.09010.
- Mitchell, Margaret, Simone Wu, Andrew Zaldivar, Parker Barnes, Lucy Vasserman, Ben Hutchinson, Elena Spitzer, Inioluwa Deborah Raji, and Timnit Gebru. "Model Cards for Model Reporting." *Proceedings of the Conference on Fairness, Accountability, and Transparency FAT\** '19, 2019, 220–29. https://doi.org/10.1145/3287560.3287596.
- Raji, Inioluwa Deborah, Andrew Smart, Rebecca N. White, Margaret Mitchell, Timnit Gebru, Ben Hutchinson, Jamila Smith-Loud, Daniel Theron, and Parker Barnes. "Closing the AI Accountability Gap: Defining an End-to-End Framework for Internal Algorithmic Auditing." *ArXiv:2001.00973* [Cs], January 3, 2020. http://arxiv.org/abs/2001.00973.

#### Data collection

- Denton, Emily, Alex Hanna, Razvan Amironesei, Andrew Smart, Hilary Nicole, and Morgan Klaus Scheuerman. "Bringing the People Back In: Contesting Benchmark Machine Learning Datasets." *ArXiv:2007.07399 [Cs]*, July 14, 2020. http://arxiv.org/abs/2007.07399.
- Jo, Eun Seo, and Timnit Gebru. "Lessons from Archives: Strategies for Collecting Sociocultural Data in Machine Learning." *ArXiv:1912.10389* [*Cs*], December 22, 2019. https://doi.org/10.1145/3351095.3372829.

## Race critical code studies

- Benjamin, Ruha. *Race After Technology: Abolitionist Tools for the New Jim Code*. John Wiley & Sons, 2019.
- Browne, Simone. Dark Matters: On the Surveillance of Blackness. Duke University Press, 2015.
- Chun, Wendy Hui Kyong. "Introduction: Race and/as Technology; or, How to Do Things to Race." *Camera Obscura: Feminism, Culture, and Media Studies* 24, no. 1 (70) (May 1, 2009): 7–35. https://doi.org/10.1215/02705346-2008-013.

- Coleman, Beth. "Race as Technology." *Camera Obscura: Feminism, Culture, and Media Studies* 24, no. 1 (70) (May 1, 2009): 177–207. https://doi.org/10.1215/02705346-2008-018.
- D'Ignazio, Catherine, and Lauren F. Klein. Data Feminism. MIT Press, 2020.
- Noble, Safiya Umoja. *Algorithms of Oppression: How Search Engines Reinforce Racism*. NYU Press, 2018.
- Hanna, Alex, Emily Denton, Andrew Smart, and Jamila Smith-Loud. "Towards a Critical Race Methodology in Algorithmic Fairness." *ArXiv:1912.03593 [Cs]*, December 7, 2019. https://doi.org/10.1145/3351095.3372826.

## The ethics of the creators

"Abolish the #TechToPrisonPipeline" https://bit.ly/TechToPrisonPipeline

Kalluri, Ria. "Don't ask if artificial intelligence is good or fair, ask how it shifts power" *Nature*, July 7, 2020. https://www.nature.com/articles/d41586-020-02003-2

Winner, Langdon. "Do Artifacts Have Politics?" Daedalus 109, no. 1 (1980): 121–36.

## News articles referenced

https://www.nytimes.com/2015/07/10/upshot/when-algorithms-discriminate.html

https://www.propublica.org/article/asians-nearly-twice-as-likely-to-get-higher-price-from-princeton-review

https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing

https://www.reuters.com/investigates/special-report/usa-riteaid-software/

- https://www.theatlantic.com/business/archive/2015/09/discrimination-algorithms-disparate-impact/403969/
- https://www.theguardian.com/technology/2015/may/20/flickr-complaints-offensive-auto-tagging-photos
- https://www.washingtonpost.com/news/the-intersect/wp/2015/05/20/google-maps-white-house-glitch-flickr-auto-tag-and-the-case-of-the-racist-algorithm/