A Seminar on Race & Gender in Tech

HELPING STUDENTS MAKE SENSE OF THE NEWS AND THE FUTURE THROUGH READINGS IN HISTORY OF SCIENCE, SOCIOLOGY, AND CURRENT EVENTS.

SIGCAS @ SIGCSE 2019: CYNTHIA LEE, STANFORD UNIVERSITY
Course Thesis

1. History of Science and Sociology texts show us how the workforce came to be so unbalanced

2. We can connect the under-representation of communities by race, gender, class, disability, and citizenship status to product failures and negative social impacts in tech

3. These issues are not self-correcting, and AI is raising the stakes with possibility of more powerful amplification
There’s a saying in Silicon Valley:

Any time you curse “@#$%!”, write down what just went wrong, and your thinking about how to fix it is the path to your next startup idea.
“I’m going on record. I’m saying it. [These webcams] are racist.” – Desi Cryer
Can your group come up with other examples of product failures, under-served markets, or related problems that may have happened because of lack of diverse perspectives?
Unequal status in society

Biased training data

Biased search results

Teaching next generation of society to hold these biases

About those stock photos…

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The “What can I do today...?” list

- Focuses on concrete, actionable suggestions for faculty
- Many suggestions are one-time, 5-10 minute actions
- Organized by when in the quarter to take action
- Plus general advice
- Helps faculty operationalize what can often be an unrealized (but sincere) desire to be part of the solution
- Share the list with your faculty and TAs!

Intervening at the machine learning algorithm level

• Joy Buolamwini and Timnit Gebru are two AI researchers leading a burgeoning field in algorithmic bias mitigation
Recommended Reading

If you’re interested in more examples and analysis of product failures due to lack of empathy for diverse perspectives and needs.

TECHNICALLY WRONG

SEXIST APPS, BIASED ALGORITHMS, AND OTHER THREATS OF TOXIC TECH

SARA WACHTER-BOETTCHER
Recommended Reading

If you’re interested in critical information and media analysis of intersections of race, gender, and class in search engine results. Lots more Google image search examples and more.
Recommended Reading

More serious and well-researched than the (sort of obnoxious?) title would suggest!

*Brotopia: breaking up the boys’ club of Silicon Valley*, by Emily Chang
Questions?

The classroom list:


Further reading: