Computer Ethics
Finding the devil in the implementation details

PRESENTER:
Jared Moore

PROBLEM
“Ethics” is lacking
Especially in computer science
And is increasingly critiqued
But neither computer science nor ethics instruction addresses this.

APPROACH
We’ve been working on a class to change that, a class that is:
• Rich in science and technology studies
• Discussion-based
• Reading-focused
• Technically relevant
• Focused on students
• Active learning-based

RESULTS
Learning is improved by:
from the mid-course assessment, 20wi:
• small-group discussions, readings,
“instructor’s energy,” “in-class activities”
from previous version, 18wi:
• “readings” [6/14, 4/9]
• “discussions” [10/14, 8/9]
Ex. (20wi):
“This class forced me to think about the applications of my education in ways I had previously not considered.”

IMPLICATIONS
• Provides a technologically-oriented but critical and theoretically-grounded content for other instructors; a proof-of-concept.
• The instructor is still quite important; ongoing work to gauge transferability.

Regarding other ethics classes:
• complicates the in-vogue focus on embedded ethics curricula
• suggests a utility in including more critical literature
• demonstrates the value in digging deeper into specific dilemmas (esp. with a historical lens)

Computer ethics can have discussions, science and technology studies, technical content, and fun.
At least, that’s how we made it.

Why?
“it's never talked about in a school setting”
“this is the class I've always wanted”
said our students.

Paper, presentation, syllabi, resources, & acknowledgments:
tinyurl.com/cs-ethics

EXAMPLE ACTIVITY:
Anatomy of Amazon Go

• (Optional) Visit one of the Amazon Go stores
• In groups, research components of the Amazon Go system.
• Write components on index cards
• Build mystery boards—like from murder-mystery shows
• Connect and label the components which you came up with using tape.
• Then, walk around and ask questions of other groups.

EXAMPLE DISCUSSION:
“Data is the new oil”

Reading:
• “Do artifacts have politics?” by Langdon Winner, 1980
• “Anatomy of an AI System” by Kate Crawford et al., 2018

Questions:
• Pick one aspect of “Anatomy of an AI System” and discuss it with someone outside of class. In a couple of sentences, what did you talk about?
• Ex. “It’s interesting to compare this to the diagram we made for the Amazon Go store and how we categorized those things. A lot of us focused on hardware or software or the cloud as being distinct, and I think that speaks to our bias as CS students.”

Outcomes:
• Students became acquainted with the language of science and technology studies
• Students gained exposure to the politics of technological artifacts
• Students considered how ontologies of data shape their collection, usage, and access.
• Students engaged in discussion in an academic language of Big Data and the view of data as a commodity.