THE
DEVIL WEARS DATA
Hi. I’m Shea.
OUTLINE

1. Identifying bias
2. Three technologies to examine
3. Scenario exercise
4. Sticky exercise
5. Discussion and wrap up
You already know more than you think.
MYTH: Technology and data are neutral and objective.
REALITY: Technology and data are representations of power.
Intent is different from impact.
TECHNOLOGIES TO EXAMINE

1. Artificial Intelligence/Machine Learning
2. Predictive Analytics
3. Facial Recognition
A computer system that is fed large amounts of data which it uses to learn how to do a specific task.
Artificial Intelligence is Making Online Proctoring Safe and Secure

AI is transforming the education sector as it has gained its importance in proctoring. It has made everything possible virtually. AI integrated computer systems can be now used to ensure the authenticity of the test by blocking the test taker from cheating via a proctor.
Amazon scrapped 'sexist AI' tool

An algorithm that was being tested as a recruitment tool by online giant Amazon was sexist and had to be scrapped, according to a Reuters report.
RECENT DEVELOPMENTS WITH AI AND MACHINE LEARNING

Camden police’s newest partner in proactive policing? Artificial intelligence
Posted Feb 19, 2020

Is artificial intelligence making racial profiling worse?

Adviser
The use of historical data and statistics to make predictions about something.
HOW PREDICTIVE/LEARNING ANALYTICS ARE MARKETED TO HIGHER EDUCATION
Big Data And The Problem Of Bias In Higher Education

Audrey Murrell Contributor ©
Diversity & Inclusion
I specialize in leadership, mentoring, ethics, and diversity

Big data is becoming more prevalent in all circles, including higher education, which raises concerns over the effects of implicit bias on student access to education. (Photo credit: Getty)

This is part five of my annual look at the year’s “top ed-tech stories”

As in previous years, it would be quite easy to fill a whole article in this series on “data insecurity” on the data breaches and cyberattacks that continue to plague education – both schools and software. The issue extends well beyond education technology, of course, and in 2017 we witnessed yet again a number of high profile incidents (including some corporate admissions of breaches that had happened in years past) that underscore the potential for high-stakes and high-profile incidents.
RECENT DEVELOPMENTS WITH PREDICTIVE AND LEARNING ANALYTICS

Racial bias found in widely used health care algorithm

An estimated 200 million people are affected each year by similar tools that are used in hospital networks

By Quinn Gawronski

A widely used health care algorithm that helps determine which patients need additional attention was found to have a significant racial bias, favoring white patients over blacks ones who were sicker and had more chronic health conditions, according to research published last week in the journalScience.

SOFTWARE

6 Best Practices for Using Student Data for Student Success

Colleges must be conscientious in matters of access, disclosure and bias when developing data-driven interventions.

by Kathe Pelletier

Kathe Pelletier is the director of student success community programs at EDUCAUSE.

The 2020 list of EDUCAUSE’s Top 10 IT Issues provides evidence that the higher education IT community is increasingly focused on using technology to better understand students and rethink systems, culture and process to improve student success. This focus is especially critical when it
A technology used to identify a person based on their facial features and comparing them to a database of known people.
How to Effectively Utilize Facial Recognition for School Security

By Matt DeBoer | 10/15/19

It should come as no surprise that school safety is top-of-mind for administrators, educators, parents and students as the new school year gets underway.

A 2018 poll by PDK International found that of 515 parents surveyed, one in three feared for their child’s safety in school. It’s crucial that the education community continues to collaborate on best practices for securing campuses, while dedicating time to sourcing the best resources for making school a safe place for students and staff.
Gender and racial bias found in Amazon's facial recognition technology (again)

Research shows that Amazon's tech has a harder time identifying gender in darker-skinned and female faces

By James Vincent | Jan 25, 2019, 9:45am EST

Facial Recognition Software Regularly Misgenders Trans People

Human computer interfaces are almost never built with transgender people in mind, and continue to reinforce existing biases.

By Matthew Gault
Feb 19 2019, 12:11pm
RECENT DEVELOPMENTS WITH FACIAL RECOGNITION

UCLA drops controversial face recognition plan

Jefferson Graham USA TODAY
Published 4:15 p.m. ET Feb. 19, 2020 | Updated 5:16 p.m. ET Feb. 19, 2020

This College Banned Students From Even Discussing Facial Recognition

After the ACLU said a community college in Michigan was violating its students' First Amendment rights, the school partially relented.

By Edward Ongweso Jr
Feb 20 2020, 6:00am
FALSE POSITIVES AND FALSE NEGATIVES

When you design a technology, you make choices about how sensitive to make it.

- More sensitive = detecting all of what you want, some of what you don’t
- Less sensitive = detecting some of what you want, none of what you don’t
APPLYING ETHICS IN TECHNOLOGY

Three scenarios

1. A.I. to detect cheating online
2. Predictive analytics for admissions
3. Facial recognition for campus building access
SCENARIO EXERCISE - 10 MINUTES

1. Form up in groups
2. Read over the scenario
3. Talk through the questions
4. Choose someone to share out
1. What values do you want in your technology?
2. What values do you NOT want in your technology?
3. What rights do you want regarding your data?
4. What do you want to tell the leaders of the university about technology?
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