

Activity 1:

What is data activism?

Lesson (45 minutes)

Objectives

- Students will learn the definition of data activism.
- Students will learn about data activists.
- Students will learn how they can use data activism to stop bias in AI algorithms, such as the COMPAS recidivism algorithm.

Resources

- [Link](#) to the slides for this activity
- The file name for the slides is titled, “What_is_data_activism_slides.pdf”.

Vocabulary

- **Data activism**, n. using data for constructive social change.

Preparation

| Material | Description |
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| Padlet | This is a discussion website, which allows the students to share their ideas anonymously. |
| Video titled “ AI, Ain’t I A Woman ” | Joy uses poetry to explain how some AI algorithms can not recognize darker skinned women or recognize them as males or animals. |
| Video titled “ W. E. B. Du Bois's Data Portraits: Visualizing Black America ” | “The colorful charts, graphs, and maps presented at the 1900 Paris Exposition by famed sociologist and black rights activist W. E. B. Du Bois offered a view into the lives of Black Americans, conveying a literal and figurative representation of "the color line." From advances in education to the lingering effects of slavery, these prophetic infographics--beautiful in design and powerful in content--make visible a wide spectrum of Black experience. |

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| | <p>W. E. B. Du Bois's Data Portraits collects the complete set of graphics in full color for the first time, making their insights and innovations available to a contemporary imagination. As Maria Popova wrote, these data portraits shaped how "Du Bois himself thought about sociology, informing the ideas with which he set the world ablaze three years later in The Souls of Black Folk. "Includes contributions from Aldon Morris, Silas Munro, and Mabel O. Wilson."-Book Description</p> |
| <p>Art titled, "Soft City":</p> | <p>"Soft City is a large-scale textile series that maps the urban fabric of Black neighborhoods in the Boston area. The tapestries map historic (redlined) and contemporary Black neighborhoods, including Roxbury, Dorchester, and East Cambridge. The information mapped tells the story of the past, present and future of Black residents, and the ecological resilience of the neighborhoods they live in. Hard (impervious) and soft (pervious) land uses are codified using colors with overlays of future tree plantings and flood zones on the tapestry. The softness and materiality of tufting interrogates the traditional top-down approach to space planning and management in the city and offers new tactile ways to explore our understanding of urban space, at all ages. " (The Guardian).</p> |
| <p>Video titled Are Risk Assessment Algorithms Fair, or Racist?</p> | <p>"It's no big secret that the United States has a prison problem. We lock up people at higher rates than any other nation, and there are huge racial disparities in who we lock up. According to a study from The Sentencing Project, in state prisons, African Americans are incarcerated 5 times more than whites. There are lots of reasons for why we may see this racial disparities, including law enforcement practices, crime rates, and punitive sentencing policies. Keeping so many people in prison is really expensive-- it costs about \$80 billion dollars a year-- and it contributes to racial inequalities in America. As a result, there's a big push among both Democrats and Republicans to reform our prison system. And one popular strategy many people advocate for as part of this reform effort are risk assessment tools. The tools use data to predict</p> |

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| | <p>whether a person will commit a future crime. This video explores how these tools work and some of the controversy surrounding their use.</p> <p>What do you think does a better job of predicting someone's risk of committing a future crime -- data-driven algorithms or human judgment?"</p> |
| Slides | Link to the slides for this activity |

Introduction

While we have created a data activism curriculum, we will discuss one portion of the curriculum that highlights AI fairness. This lesson teaches students about data activism through a series of examples before they learn about AI fairness. We define data activism as utilizing data, computing, and art to analyze how power operates in the world, challenge power, and empathize with people who are oppressed [1].

Instructions

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| Activity 1: Intro to Data Activism: Explain to students that we will discuss the definition of data activism and a few examples of data activism [45 minutes] | |
| Watch video & reflect [10 minutes] | <p>The first feature of data activism involves analyzing power and how it operates in the world. Show the video titled "AI, Ain't I A Woman". While they are watching the video, have students take notes using the 3,2,1 framework on Padlet:</p> <p>The 3,2,1 Framework</p> <ul style="list-style-type: none"> ● <i>three facts from the video</i> ● <i>two facts they never knew</i> ● <i>one question they have after watching the video</i> <p>After students finish typing their 3,2,1 on Padlet, instruct the students to discuss their answers in small groups for 5 minutes. Then, the instructor should lead a large group discussion for another 5 minutes.</p> |

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| <p>Watch video & reflect [10 minutes]</p> | <p>The second aspect of data activism is challenging power. Show the video titled, "W. E. B. Du Bois's Data Portraits: Visualizing Black America". While they are watching the video, have students take notes using the 3,2,1 framework on Padlet. Refer to the first cell for the 3,2,1 framework instructions.</p> |
| <p>Read description of art & reflect [10 minutes]</p> | <p>The third attribute of data activism includes using art to empathize with people who are oppressed. Students will read the description of the art titled, "https://justpractice.work/". While they are reading the description, have students take notes using the 3,2,1 framework on Padlet. Refer to the first cell for the 3,2,1 framework instructions.</p> |
| <p>Watch video & reflect [10 minutes]</p> | <p>Now discuss the main objective of this assignment, which is to learn the critical thinking and data science skills needed to ensure AI is fair in the criminal justice system. Show the video titled, "Are Risk Assessment Algorithms Fair, or Racist?". While they are watching the video, have students take notes using the 3,2,1 framework on Padlet. Refer to the first cell for the 3,2,1 framework instructions.</p> |
| <p>[5 minutes]</p> | <p>Reflection: Encourage students to share their experience doing the activity</p> <ul style="list-style-type: none"> ● What did you learn? ● What was challenging? |

References

[1] [Walker, R., Sherif, E., & Breazeal, C. \(2022\). Liberatory computing education for African American students. 2022 Conference on Research in Equitable and Sustained Participation in Engineering, Computing, and Technology \(RESPECT\), 85–89.](#)

