# Beyond AI Hype: Algorithmic & Dataset Bias

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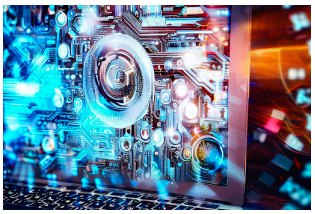

This lesson educates students on the ethical implications of AI. Students will participate in a short lecture introducing them to topics on bias and algorithmic bias. Students will also engage in an activity to write up case studies of real-world examples of algorithmic bias.

Duration 90 minutes

## Lesson Objectives

After this experience, students will:

- Improve their knowledge of bias
- Understand how bias impacts AI models
- Have increased exposure to real-world examples of AI/ML bias

## Questions Explored

In this experience, students will consider:

- What do you know about bias?
- What are some everyday examples of bias?
- Do you know how bias impacts ML models?

## Key Terms & Concepts

- bias
- algorithmic bias
- dataset bias

## Lesson Overview

**5 min** **Group Discussion**

To gauge student knowledge about bias, engage students in a group discussion.

Guiding questions include:

- What do you know about bias?

- What are some examples of bias?
- Do you know how bias impacts ML models?

**20 min** **Bias Lecture**

Introduce students to different forms of bias, including algorithmic and dataset bias through a short lecture based on these slides Beyond AI Hype Session III.

**45 min** **Bias Case Studies Activity**

To begin this activity, students will watch a video detailing real-world examples of algorithmic bias: Algorithmic Bias, Discover How It's Affecting You!. The activity will involve students finding an example/incident of AI bias and writing what they learned from conducting research on the respective bias incident.

Provide students with an overview of the activity and then direct them to write up their findings. The write-up should answer the following questions:

- What is the bias about and what field does it impact (medicine, finance, hiring, etc.)?
- Who (company, researchers, etc.) developed the biased tool or algorithm?
- When did this happen?
- How did it affect users?
- Why do you think this is an important issue?

**15 min** **Ethical Issues of Data Annotation Activity**

Introduce students to issues regarding data annotation by watching a short video: Doing Grueling Work for an AI: Data Labeling. Then direct students to read an article from TIME detailing this topic.

**10 min** **Case Studies Activity Debrief**

Engage students in a brief discussion on their experience with the activities. Guiding questions include:

- How did you like the activity?
- What did you learn?
- What questions do you still have?

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| **10 min** | **Video (optional)**<br>If there is extra time in the session, students can watch a TED talk from an AI researcher who provides insights on the potential dangers of AI `The danger of AI is weirder than you think \| Janelle Shane`. |