Artificial Intelligence in the Library

Public Library
ST. JOE COUNTY

Introduction

Ross Hanney

St Joe County Public Library

dot.cards/rhanney

github.com/SardineDude1

Learning Objective

Center Artificial Intelligence within library services around patron experiences and needs.

How can we use this tool to best serve our patrons?

Presentation Agenda

- What exactly is AI and why should we care?
- How is AI already being used in libraries?
- How have you used AI in your work?
- How can we be responsible with AI?
- What does the future hold?
- More Questions?

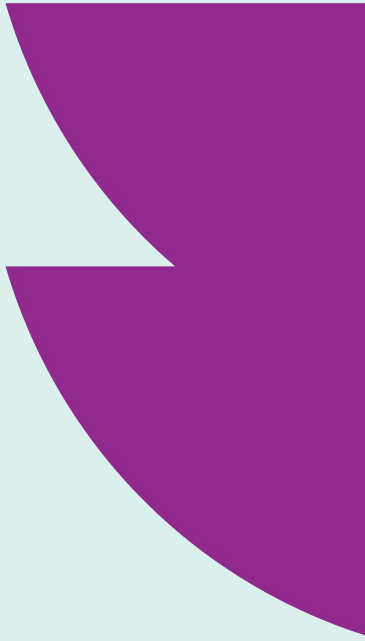
What is AI?

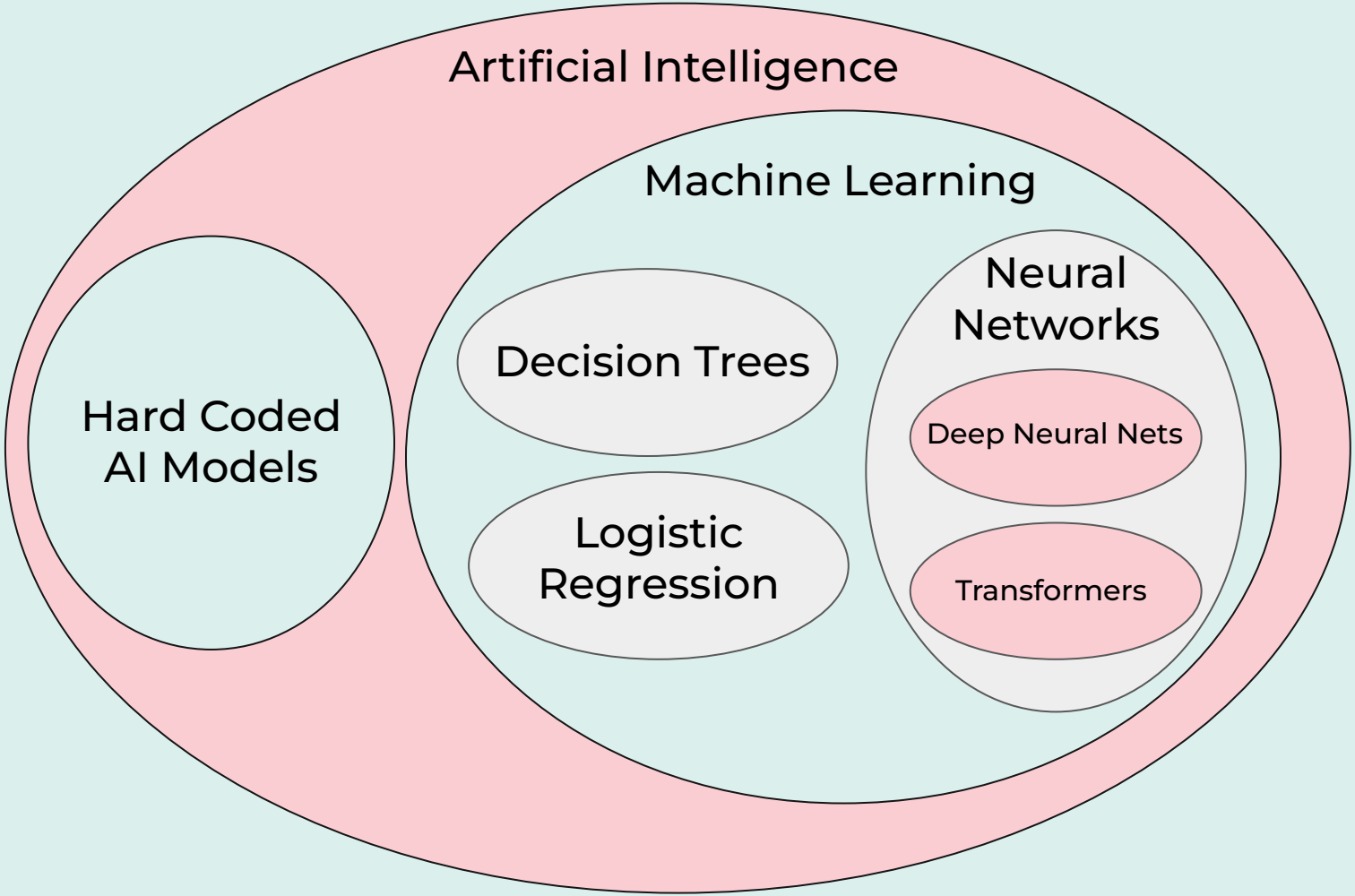
Artificial Intelligence

"Artificial intelligence, or AI, is technology that enables computers and machines to simulate human intelligence and problem-solving capabilities" (IBM).

Machine Learning

"Machine learning (ML) is a branch of artificial intelligence (AI) and computer science that focuses on using data and algorithms to enable AI to imitate the way that humans learn, gradually improving its accuracy" (IBM).




Artificial Intelligence
Machine Learning
Hard Coded AI Models
Decision Trees
Logistic Regression
Neural Networks
Deep Neural Nets
Transformers

What Happened?

My Model

Prompt: "How are you today?"

Response: "Mutton and english sir no take no heed my expense sir."

ChatGPT 3.5

Prompt: "How are you today?"

Response: "I'm doing well, thank you for asking! How about you? What's on your mind today?"

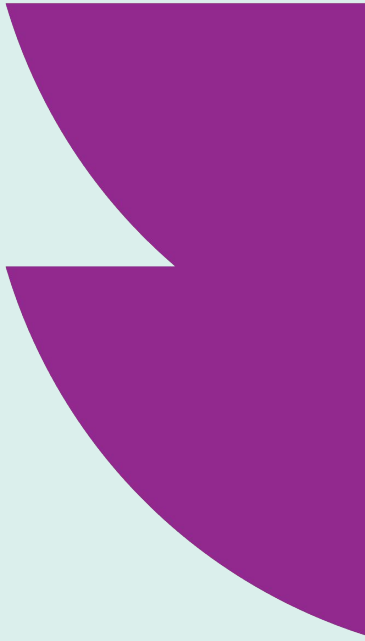
The Difference

My Data

Some of ChatGPT's Data

Why should we care?

- AI is not going away.
- Many people do not know how it works.
- It can lead to misinformation.
- It can also lead to better service.



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How is AI already being used in libraries?

San Jose Public Library

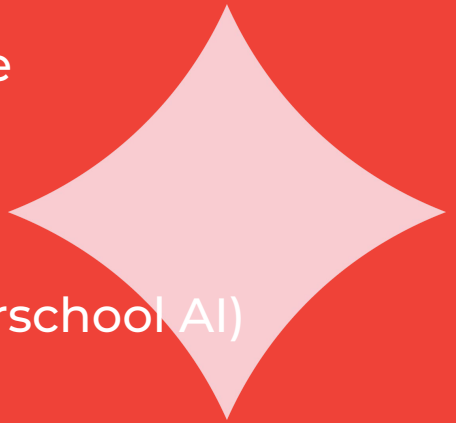
- Increased accuracy in measuring library use
- Library Programming focused on the basics

New York Public Library

- AI working group oriented towards internal use case

St Joe County Public Library

- AI Programs for Patrons (AI Escape Rooms and Afterschool AI)



How have you used AI?

- Draft Emails or Internal Communications
- Generate Subtitles for Training Videos
- Translate Materials into Different Languages
- Write code to automate processes
- and more!

CEILA (Cost Effective Item Level Analysis)

Goal: Determine what is the most important trait of an item when selecting materials for purchase.

Result: A predictive model that could determine which items would circulate best before they were purchased. The model had a 92% accuracy rating.

Code available at: github.com/SardineDude1/CEILA

Read about it: doi.org/10.5860/ital.v42i4.16987

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How can we be responsible with AI?

Privacy

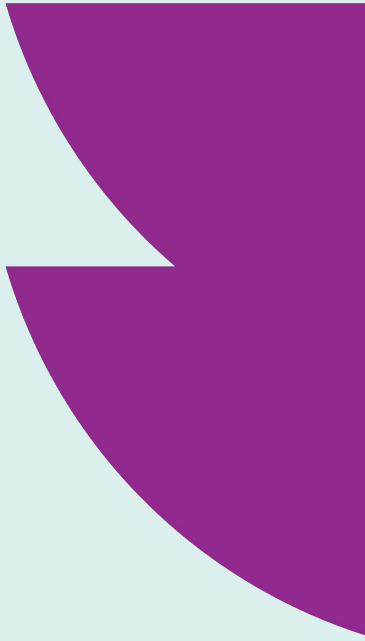
- Protect our patrons right to privacy and confidentiality and the creators' intellectual property rights

Accuracy

- Accurate information free of bias or private interest

Accessibility

- Digital Divide -> AI Divide



Privacy

Any information entered into a chat/prompt box may be used in the AI's knowledge base in its next release.

The Danger:

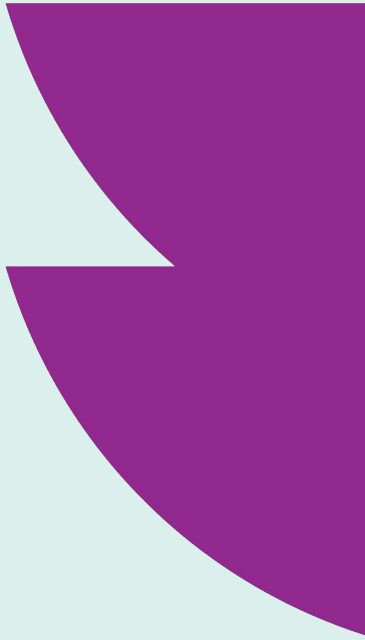
- Expose patron information
- Violate copyright (maybe?)

Accuracy

While some AI tools are extremely sophisticated, they can "hallucinate" and are built using biases.

The Danger:

- Misinformation
- Biased Results



Accessibility

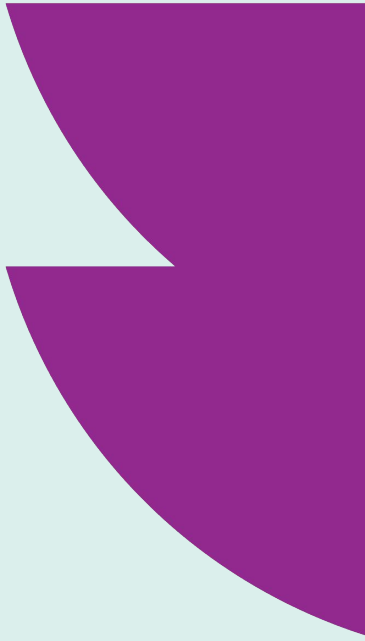
The AI divide is the growing social and economic gap between folks who can use AI and the folks who cannot.

The Danger:

- Widening disparities in our communities

What Can We Do?

- Education and Programming for Patrons
- Education for Library Workers
- Develop Policies/Guidelines
- Stay Informed
- Work together!



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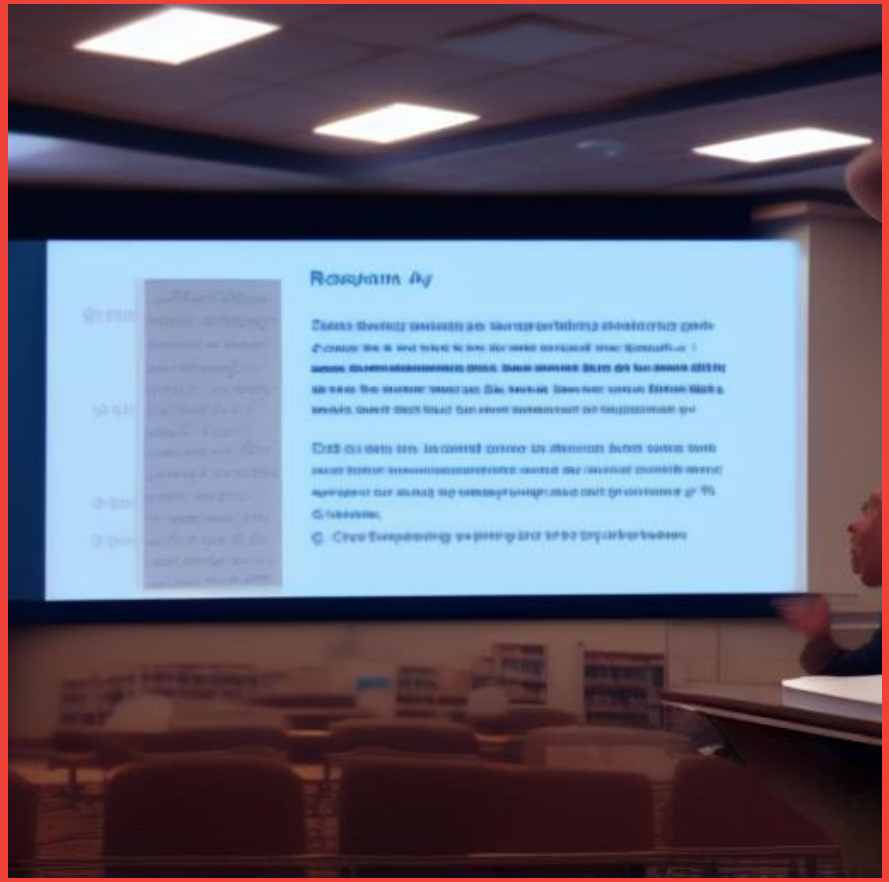
What does the future hold?

Prompt: Imagine a world where public libraries do not embrace AI.

Prompt: Imagine a world where public libraries sort of embrace AI.

Prompt: Imagine a world where public libraries fully embrace AI.



Prompt: Imagine a world where an HR rep gives a library presentation on AI.

Questions?