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# Artificial Intelligence in Libraries

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# Who are we?

## Cassandra Jones-VanMieghem

- Makerspace Manager at Ruth Lilly Medical Library at IU Indy
- Emerging Technology professional since 2016
- Alumna of IU Indy's Luddy School of Informatics, Computing, and Engineering

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- Makerspace Assistant at Ruth Lilly Medical Library at IU Indy
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# What is AI?

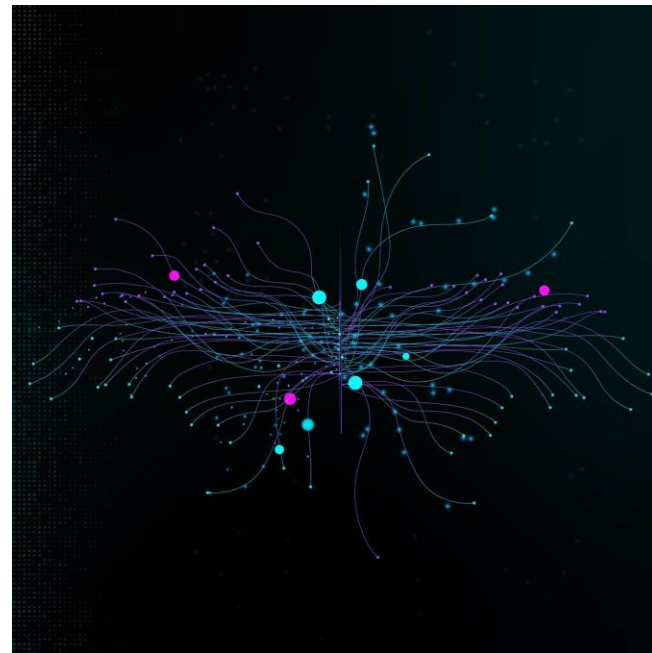
- Does not have to be complex
  - Pong
  - Tic, Tac, Toe
  - Chess
- Is already integrated into our lives
  - Autocorrect
  - Search Engines
- Generative AI
  - Chatbots - e.g. ChatGPT/OpenAI, Google Gemini, Microsoft Copilot
  - Image Generators - e.g. Dall-E, Midjourney, Bing Image Creator, Adobe
  - Video Generators - e.g. Sora



DOSBox Windows 98 Chess

# What is Machine Learning?

- Data collection
- Clean up the data
- Train the model
  - Supervised
    - Pavlov's Dog
  - Unsupervised
    - AI finds patterns on its own
- Test data set
  - Supervised
    - Did it produce the answer you were looking for?
  - Unsupervised
    - What patterns did it pick up on in the new data set



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# How is AI currently being used in Libraries?

- Chatbots
  - Generalized Chatbots
  - Retrieval Augmented Generation (RAG) chatbots
    - Training chatbot on specific data to consult first reduces hallucinations
- Search Engines
  - Google, Bing, etc.
  - Pubmed, Dynamedex, Elsevier
- Document Digitization
- Speech Recognition/Real Time Transcription
  - Otter AI
  - Whisper AI
- Translating Text

It looks like you're writing a letter.

Would you like help?

Get help with writing the letter

Just type the letter without help

Don't show me this tip again



Clippy Virtual Assistant  
Microsoft Office 97 - 2003

# Concerns about AI

- Bias
- Trained on unethically sourced data
- User agreements
  - Are your inputs being used to train the AI
  - Are your inputs being stored - if so, for how long
- Using AI to “cheat” in academics
- Inaccurate results
  - AI hallucinations
- Citing sources
  - <https://publicationethics.org/>



HAL 9000 from 2001  
a Space Odyssey

# AI use best practices

- Never use an AI output as a final result
- Be mindful of your use of AI
  - How is AI augmenting your workflow
  - Do you really need generative AI to complete this task
  - Could someone else help you instead of AI
- Never share personal information with AI tools
  - Addresses
  - Full, legal names
  - Photos of yourself or others
- Be sure to read the user agreements and opt out whenever possible



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