

Using Generative AI to Remove Barriers in Support of Open Content Creation

Preface

This document illustrates the input-output flow from a prompt typed into ChatGPT 4.0 (an LLM) to elicit a response while utilizing Ask Your PDF plugin and the first 100 pages of an uploaded OER titled *Artificial Intelligence and Librarianship* (Frické, 2023). The first prompt leads to multiple-choice questions as a sample for a quiz. The second prompt leads to samples of open ended questions.

Prompt

Create 5 robust, multiple-choice questions for a quiz. Each question should come with 4 possible answers. Indicate which answer of the 4 is the correct answer. Indicate which page number has the correct answer.

Response

- 1. Which of the following is an example of an AI program within librarianship? [Page: 23]**
 - a) Chatbot
 - b) Optical Character Recognition (OCR)
 - c) Automated Book Sorting
 - d) Digital Cataloging
 - **Correct Answer: b) Optical Character Recognition (OCR)**
- 2. Who devised and assembled computing machines that did OCR and text-to-speech synthesis in the mid-1970s? [Page: 23]**
 - a) Alan Turing
 - b) Ray Kurzweil
 - c) Elon Musk
 - d) Steve Jobs
 - **Correct Answer: b) Ray Kurzweil**

3. **Which type of machine learning involves learning with a teacher who knows the answers?** [Page: 41]

- a) Unsupervised Learning
- b) Reinforcement Learning
- c) Supervised Learning
- d) Transfer Learning
- **Correct Answer: c) Supervised Learning**

4. **Which famous example is Word2Vec known for?** [Page: 90]

- a) Paris - France + England = London
- b) King + Queen - Man = Woman
- c) King - Man + Woman = Queen
- d) Apple - Fruit + Tech = iPhone
- **Correct Answer: c) King - Man + Woman = Queen**

5. **What type of learning involves exploration of an environment by trial-and-error and receiving delayed rewards?** [Page: 47]

- a) Supervised Learning
- b) Transfer Learning
- c) Reinforcement Learning
- d) Unsupervised Learning
- **Correct Answer: c) Reinforcement Learning**

Prompt #2

Now please create 5 thoughtful, open ended questions, based on the PDF. These questions should be suitable for a class discussion or book club that wishes to discuss their reading of the PDF. The questions should be thought-provoking. The questions should not come with answer choices.

Response #2

Considering the evolution of AI in librarianship, as mentioned with the example of Optical Character Recognition (OCR) on page 23, how do you envision the future of libraries with the integration of more advanced AI technologies? What potential challenges and benefits do you foresee?

The PDF touches upon the concept of "ground truth" in machine learning on page 41, emphasizing that even carefully curated data can be wrong or incomplete. How do you think this concept applies to other areas of knowledge or information, especially in the context of libraries?

On page 90, the document discusses the capabilities of Word2Vec in understanding word contexts and relationships, such as "King - Man + Woman = Queen". How do you feel about machines being able to understand and manipulate language in this way? What implications might this have for the way we understand and use language in the future?

Reinforcement learning, as described on page 47, involves trial-and-error and receiving delayed rewards. Can you think of any real-world scenarios or experiences in your life where you've applied a similar approach to problem-solving or learning? How does this concept resonate with human behavior and decision-making?

The document seems to be a guide or resource for understanding the intersection of AI and libraries. Based on what you've read, how do you think the role of librarians might change or evolve with the increasing integration of AI? What skills or knowledge might become essential for future librarians?

References

Frické, M. (2023). Artificial intelligence and librarianship. Open Textbook Library. Retrieved September 1, 2023, from <https://open.umn.edu/opentextbooks/textbooks/artificial-intelligence-and-librarianship>

OpenAI. (2023). *ChatGPT Plus 4.0* (Aug 3 version) [Large language model]. <https://chat.openai.com/chat>