Applications and Implications

Artificial intelligence (AI) has entered library areas such as search and information discovery, collection management, academic publishing, information literacy, and references services. With the rise of generative AI such as ChatGPT, AI becomes a hot topic in academia. A deeper understanding of this technology and how it affects academic libraries becomes more important than ever.

# of AI in East Asian Libraries

The overarching objective of this poster presentation is to investigate and reflect critically the application of AI in East Asian libraries. To address the issues of privacy, data security, academic integrity, and threats to job, it is critical to involve information professionals in the development and stewardship of this technology.

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What is AI?

AI is defined as "the development of machines to accomplish tasks and reproduce thought processes that are normally seen in humans; this simulation of intelligent behaviour is unique from other automation as it requires the computer to use human reasoning or thinking to perform tasks."

Machine Learning (ML), a subset of AI or its own field, refers to a computer algorithm's ability to "observe and detect patterns in data with the goal of being able to predict future decisions and outcomes from said data."

Hervieux, S. & Wheatley, A. "Introduction." *The Rise of AI: Implications and Applications of Artificial Intelligence in Academic Libraries*. Chicago: Association of College and Research Libraries, ix – xii.

Applications of AI in EALs

- AI literacy workshops,
- Speaker series,
- Machine translation,
- Characters, handwritten text and visual recognition in CJK context.

University of Ottawa and Concordia University:

- Informed use of machine translation for international students
- Concepts of privacy/confidentiality, academic integrity, algorithmic bias, and awareness of the variety of translation tasks, tools, and input.

Toronto Metropolitan University:

- AI applications project This Criminal Does Not Exist uncovering the inherent biases within facial recognition technologies
- Exhibition/Reconstruction of Toronto Chinatown demonstrating the application of ML in art industry.

University of Edinburgh:

- The use of Transkribus software to support the digitization of handwritten text in libraries

What are the benefits, impact, and concerns of implementing AI?

Improve the user experience, contributing to the enhancement of cultural diversity in academic libraries

Release limited resources to address more complex tasks on the instruction of correct use of AI tools with academic integrity, transparency, and honesty.

Reinforce the critical role of East Asian librarians in community outreach and engagement by explaining the implications of AI to the East Asian scholars and communities.

Opportunities to provide expertise in the adaption of AI in East Asian languages and user interfaces.

Limitations of AI tools include not following user's explicit instructions, making up nonexistent or wrong facts, not being able to explain how to arrive at its own decision or prediction, and generating biased, toxic and outdated output

How can we embrace the values of EDI in the applications of AI?

Understand or be aware of the potential bias AI tools may propagate.

In selecting and implementing technology, we need to move beyond accessing new products, to advocating for EDI-oriented design practices.

Before fully embracing a technology, we may critically explore the social justice concerns with the lens of their professional ethics and guidelines

Empower user with our findings in digital literacy programs.