

Generative AI versus intellectual capacity and knowledge development: a trending crisis

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Abstract:

Generative Artificial intelligence is a new technological development rapidly affecting the world. It is a technology developed to perform various tasks by exposing search terms to lots of data. However, the impact of generative AI is not encouraging the development of human knowledge, which is becoming dangerous to the present generation. Librarians as information custodians are, therefore, concerned about over-reliance on Artificial Intelligence as it destroys information authenticity, encourages information theft, disrupts mental health, and hinders socialization. It is, therefore, important for librarians to alert the world to strike a balance between generative AI, intellectual capacity building and knowledge development.

Keywords: Generative AI, Intellectual capacity, Knowledge development, Librarians, Crisis.

Introduction

Generative Artificial Intelligence (GAI) is a new development in technology that is affecting the world. It is an artificial intelligence (AI) platform based on natural language processing technology according to Yadava (2023). It is a technology developed to perform various tasks by exposing the search terms to lots of data. Artificial Intelligence, however, hinders intellectual capacity building because it generates answers to questions without input from human intellect.

Information is the most valuable asset in any society, as information facilitates knowledge and in turns produces information. However, the impact of generative AI is not encouraging the development of human knowledge, which is becoming dangerous to our generation. When the human intellect is completely removed from knowledge generation, the world becomes superficial, destroying the use of the human brain and originality. Hence, advancing knowledge will become very difficult while promoting a generation of dullards. Librarians as information custodians are, therefore, concerned about over-reliance on artificial intelligence (AI) as it destroys information authenticity, encourages information theft, disrupts mental health, and hinders socialization. It is, therefore, important for librarians to alert the world to strike a balance between generative AI, intellectual capacity building and knowledge development.

Librarians Vs. Generative AI

Librarians are information professionals who acquire various and comprehensive information resources, organize them, and use them to facilitate and disseminate information to meet users' needs. In other words, they enhance accessibility and maximal use of information by people. Librarians ensure that information is systematically organized to meet users' needs. Their job, therefore, involves analyzing users' needs to determine the appropriate information needed. In addition, librarians show users how to find and evaluate information ethically. They help users navigate the Internet to search for and evaluate information efficiently.

Generative AI is a new technological development; "a type of machine learning that generates new outputs such as text, images, or sounds based on the content it has been trained on". Generative AI is developed to perform various tasks by exposing search terms to lots of data. Lim, Gunasekara, Pallant, Pallant and Pechenkina (2023) defined Generative AI as a technology that (i) leverages deep learning models to (ii) generate human-like content (e.g., images, words) in response to (iii) complex and varied prompts (e.g., languages, instructions, questions).

Intellectual Capacity Building

Information is a very valuable asset in any society, as it facilitates knowledge. However, the increasing popularity of generative AI, such as ChatGPT (Chat Generative Pre-trained Transformer), raises concerns about the impact of such technology on human knowledge development. By relying solely on AI, we risk losing the human intellect that is essential for creating original and meaningful content. This poses a significant threat to our generation as it limits our ability to advance knowledge and promotes a generation of individuals lacking originality and creativity. Yadava (2023) reported that in February 2023, the University of Hongkong banned its use by its students and declared that its use would equate to the allegation of plagiarism.

AI can generate content without human intervention by using deep "neural networks" that mimic the human brain. ([Generative AI: friend or foe? techwireasia.com](https://techwireasia.com)). Although, while this technology can create content, it can only do so based on data it has been trained on, and it cannot replace the human brain. The limitation of generative AI was highlighted by a robotic lady created in China, which could only perform tasks that had been programmed into her. The limitations of generative AI pose significant challenges to librarianship as it hinders intellectual capacity building. The human brain will keep growing while generative AI is limited to the data it is trained with.

Generative AI; a foe to librarians and disruptive to librarianship

Generative AI is seen as a potential threat to librarians and their profession. This is because AI can generate answers to users' queries faster than librarians can, thereby reducing the need for librarians to create original content. However, librarians do more than just provide answers. They act as mediators between users and information sources and facilitate knowledge. They use their analytical skills to deliver accurate and reliable information. While generative AI may be faster, it lacks the ability to interpret social cues, irony, and humor, (Molluy, 2023) which are essential for an inclusive library users' experience.

Moreover, generative AI can produce false but convincing information, which can have negative consequences when used for decision-making. Furthermore, it should be noted that librarianship is a human endeavor, and librarians are social agents. It would be very difficult for machines to replace human interactions, which are critical for a comprehensive and customize users' experience. For instance, Generative AI can never replace original classification in cataloguing of library materials. This is because there is a need to consider many factors to properly classify the material so that users can discover it among other materials in the library.

Conclusion

Over-reliance on AI can lead to information authenticity issues, plagiarism, and mental health disruptions. As a result of the issues raised above, librarians are greatly concerned about the increasing use of AI in academia and within their profession. They are worried that the use of Generative AI could be disruptive to Librarianship. It is therefore, necessary for librarians to sensitize the world to strike a balance between generative AI and the development of Knowledge.

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