

ChatGPT: A Boon to Library Services

Prathibha S. N.

Research Student

Dept. of Library and Information Science, KSOU, Mukthagangotri, Mysuru

Email: pratibha.goudar@gmail.com

Shilpa Rani N. R.

Assistant Professor

Dept. of Library and Information Science, KSOU, Mukthagangotri, Mysuru

Email: shilparani.nr@gmail.com

Abstract

Purpose: To explore the role of ChatGPT in providing various services to the user's community and to discuss its assistance in providing quick access to relevant and reliable sources by saving a significant amount of time for users.

Design/methodology/approach: This is a descriptive paper based on the increasing application of Information and Communication technologies, i.e., ChatGPT, in various areas of the library to reach the users at the right time.

Findings: ChatGPT is an example of disruptive technology. It is being used as a supplementary resource to enhance the overall library experience. As an AI language model, it plays various roles in several ways, like Reference Assistance, Research Aid, Accessibility Support, Content Curation, etc.

Research limitations: The scope of this study is limited to the role and application of ChatGPT in libraries.

Practical implications: An overview of ChatGPT and its impression on libraries may enhance the curiosity of readers to discover more about this area.

Originality/value: Artificial intelligence-based chatbots are spreading their giant tentacles in all areas. Hence, service domains like libraries are at the forefront of adopting such technology applications to fulfil the needs of tech-savvy users. This study will certainly be helpful for fellow professionals.

Keywords: Chatbot, ChatGPT, Artificial Intelligence, Academic Libraries, OpenAI

Article type: Descriptive

1. Introduction: A chatbot powered by artificial intelligence (AI) named ChatGPT has become famous overnight. Since its launch on November 30th, 2022, ChatGPT has gained over a million users and received an estimated 96 million monthly views. OpenAI, which developed the language model (Mavuduru, 2021), is an artificial intelligence research firm that has rapidly grown in popularity. Due to its ability to answer questions, write essays, write computer codes, and carry out various other tasks, it has opened new horizons and possibilities. Even though there are worries about its limitations and abuse, ChatGPT continues to be popular. The concerning aspect is that some users are misusing predictive text generators by using them as truth oracles, which is a poor way to use them.

Chatbots are scripts or software. The Generative Pre-Trained Transformer (GPT) is an innovative language processing AI that is designed to produce conversational text for a wide range of purposes.

While Google Search already has a lot of features like graphics, audio, and video, it also extensively utilises AI. Google has already built its own chatbots and large language models. ChatGPT, in contrast, is a piece of software created to produce results from a limited amount of data available up until 2022. To explore information from Google or other search engines and provide information in real-time.

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The generative pre-trained transformer (GPT) family of language models includes ChatGPT. An artificial intelligence (AI) chatbot named ChatGPT was created by OpenAI and released in November 2022. Large language models (LLMs) from the GPT-4 families have been improved using both supervised and reinforcement learning methodologies (Spencer, 2023).

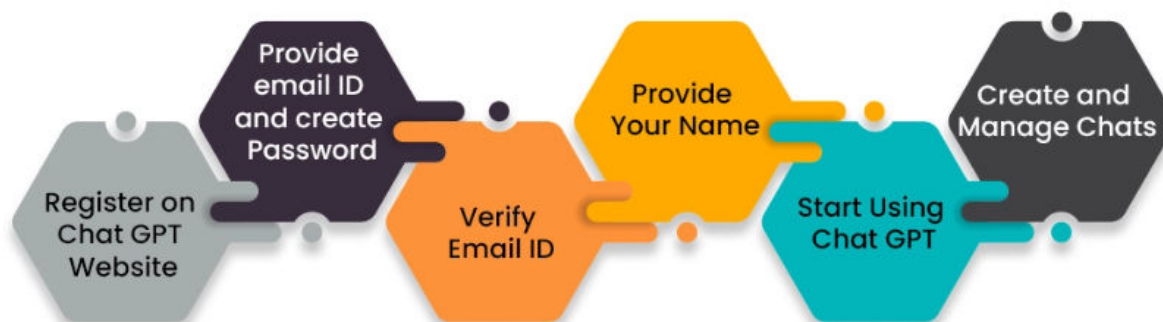


Fig. 1: How to use ChatGPT

Source: College Vidya, 2022

According to the task at hand, this could involve creating and researching computer programmes, conducting music, teleplays, fairy tales, and student essays, answering test questions (sometimes at a level above the norm for human test-takers), writing poetry and song lyrics, simulating an entire chat room, playing games like tic-tac-toe, and more, and simulate an ATM. ChatGPT also has some distinctive characteristics. The training tools for ChatGPT include man pages and facts on web phenomena, programming languages like Python, and bulletin board systems.

The latest model in OpenAI's Generative Pre-Trained Transformer series, GPT-4 is a multimodal big language model. It was released on March 14, 2023, and is now available to the general public through ChatGPT Plus in a constrained capacity. A waitlist is required to gain access to its commercial API. Fig. 3 highlights the usage data of ChatGPT for only five days in 2022.

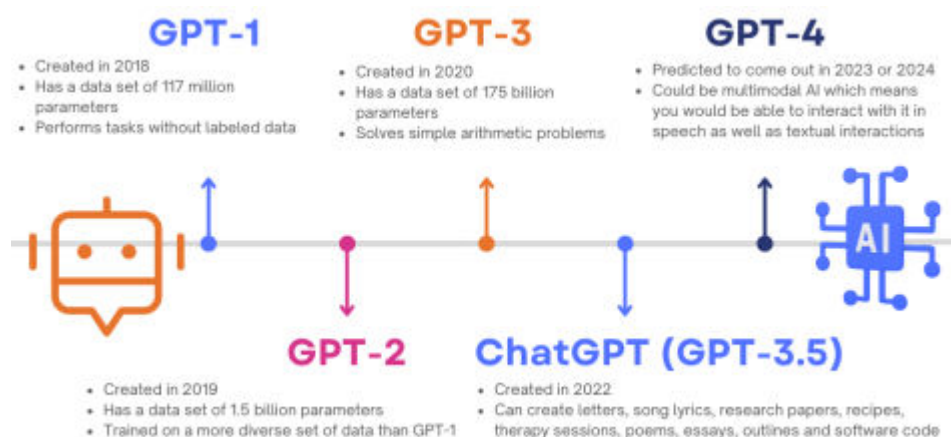


Fig. 2: ChatGPT Version History

Source: Seton, 2023

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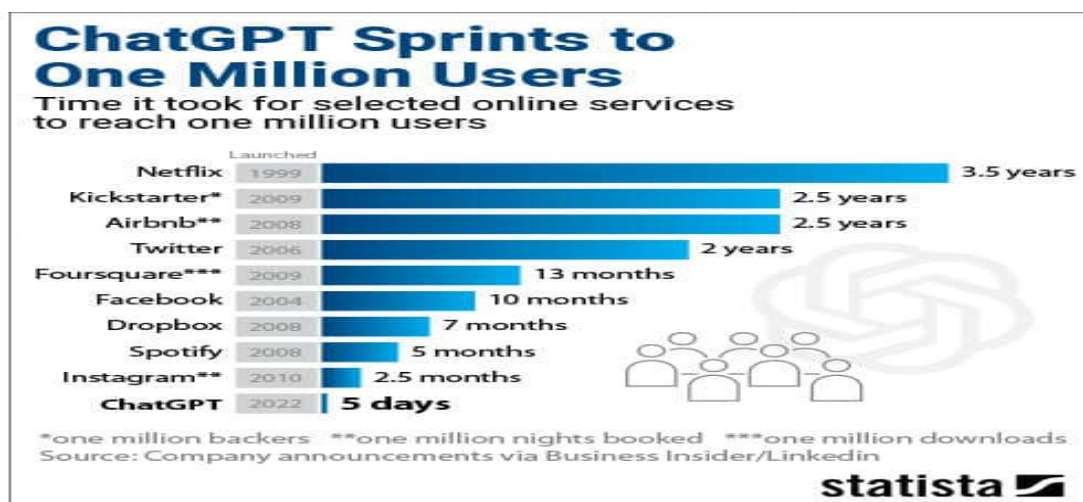


Fig. 3: ChatGPT Usage

Source: Dvorak, 2023

2. Benefits of ChatGPT for Library Services: The selection of books, journals, articles, and other resources available in libraries covers a wide range of subjects. ChatGPT can access this data by utilising library services, which can assist in giving customers more precise and thorough responses. Rare books, manuscripts, and archives are just a few examples of the materials that are frequently found in libraries but are not easily accessible online. When it comes to providing ChatGPT with particular and specialist information, these resources can be incredibly helpful.

The significance of ChatGPT in libraries is enhanced search and discovery, reference and information services, cataloguing and metadata development, content creation, and the ethical issues that must be taken into account. These issues include bias and privacy (Lund & Wang, 2023)

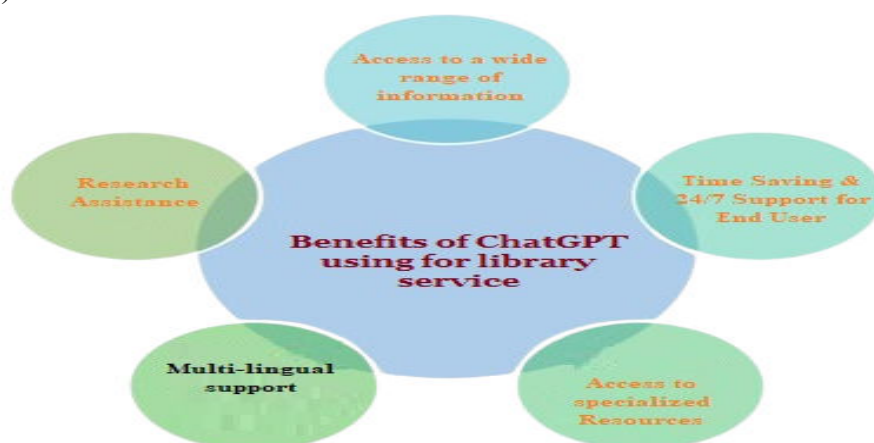


Fig.4: Benefits of ChatGPT for Library Services

3. Application of ChatGPT in Library Services: Some of the probable applications of ChatGPT in library services are as follows:

a) Collection Development: ChatGPT could assist librarians in identifying new topics of interest and ensuring that their collections are current and pertinent by analysing enormous volumes of text and discovering trends and patterns.

Here are some questions provided by ChatGPT on collection development (Adetayo, 2023).

- What factors should be considered when selecting materials for a library collection?
- How can I assess the needs and preferences of library users for collection development?

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- (iii) Are there any best practises for weeding and deselecting materials from a library collection?
- (iv) How can I stay updated on new publications and trends in different subject areas?
- (v) What are some strategies for promoting and marketing the library's collection to users?



Fig. 5: Application of ChaatGPT in Library services

b) Reader's Advisory: ChatGPT can be utilised to offer tailored reading recommendations to library patrons by enabling it to analyse the way they read, genres, and authors.

c) Provides Accessibility to Disabled Patrons: It can be applied to offer customers with disabilities accessibility services. For instance, ChatGPT might be used to provide transcripts of videos or audio explanations of visual content.

d) Outreach and Communication: By offering prompt responses to comments and messages on social media platforms, ChatGPT can assist libraries in interacting with their users.

e) Reference Services: One of the most obvious ways in which ChatGPT could be used by libraries is to provide reference services to patrons. For example, a library could create a chatbot that uses ChatGPT to answer common questions about library services, resources, and policies. This could help reduce the workload of librarians and improve the speed and efficiency of the reference process.

f) Promotion and Participation: ChatGPT can be used to interact with library patrons and advertise events and services. A library may, for instance, develop a social media chatbot that uses ChatGPT to engage with people and inform them of expected events and services. Book clubs, author appearances, workshops, library marketing, collaboration and partnership, user surveys and feedback, library programmes and events, community outreach, volunteers and advisory, user-centred spaces, and social media engagement are all possible applications for ChatGPT.

g) Information Literacy: A library may create an interactive tutorial or game using ChatGPT to teach users how to evaluate sources and conduct research.

h) Book Requirement: It also has the ability to assess the user's reading interests and make book recommendations accordingly. Users who are looking for fresh reading material or are unsure of what to read next may find this helpful.

i) Catalogue Searching: Patrons might use ChatGPT to look up books, articles, and other resources in the library's catalogue. Natural language processing can be used by ChatGPT to decode user inquiries and provide appropriate search results.

j) Personalised Reading Suggestions: ChatGPT can be used to give customers personalised reading suggestions based on their reading habits and history. It can recommend books to

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users based on the books they have previously checked out and their responses to surveys about their reading preferences.

k) FAQs: ChatGPT can be trained to answer frequently asked questions (FAQs) about the library's policies, services, hours, and other information.

l) Language Transformation: It can be used to offer customers language conversion services. Customers can engage with the library in their local languages and receive responses from ChatGPT in the language of their choice by integrating the chatbot with translation software.

m) Interactive Training: ChatGPT can be used to deliver interactive instruction on the products and services offered by libraries. For instance, it can show users how to access e-journal and e-book databases, both kinds of electronic resources.

4. Conclusion: The impact of ChatGPT is huge in all sectors, and its capacity to generate text that sounds like human speech and react to queries is enormous. Large Language Models (LLMs), like ChatGPT, have replaced the use of task-specific datasets or fine-tuning to perform language tasks. Data has been added in many languages and computer codes in the present quantity. It has been trained on an extensive quantity of text, including books, websites, news stories, academic articles, and other sources, as opposed to searching the internet. ChatGPT is capable of a natural language processing (NLP) system that can produce conversations that sound like humans. On the other hand, the moral implications of how students might abuse it to evade learning are being discussed in academia.

However, technology like ChatGPT is a tool that must be used effectively. ChatGPT provides a variety of possible advantages as well as disadvantages, just like any other technology. What ultimately counts is how wisely and effectively we employ these techniques in our day-to-day activities.

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