Evidence Based Library and Information Practice

Students' Perspective of the Advantages and Disadvantages of ChatGPT Compared to Reference Librarians

Adetayo, A. J. (2023). ChatGPT and librarians for reference consultations. Internet Reference Services Quarterly, 27(3), 131–147. https://doi.org/10.1080/10875301.2023.2203681

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Evidence Summary

Students' Perspective of the Advantages and Disadvantages of ChatGPT Compared to Reference Librarians

A Review of:
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Abstract

Objective – To investigate students' use of ChatGPT and its potential advantages and disadvantages compared to reference librarians at a university library.

Design – Survey research.

Setting – A university library in Nigeria.

Subjects – Students familiar with ChatGPT (n=54) who were enrolled in a library users' education course.

Methods – A survey was conducted in a sample of undergraduate students enrolled in a library users' education course, who had previously used ChatGPT. Participants were asked questions based on six categories that reflected frequency of use, types of inquiries, frequency of reference consultations, desire to consult reference librarians despite the availability of ChatGPT, and potential advantages and disadvantages of ChatGPT compared to reference librarians. A 4-point Likert scale was used to

measure the responses from often to never, strongly agree to strongly disagree, and rarely to frequently.

Main Results – The sample of students who participated (n=54) were a diverse group whose age varied from below 20 (35.2%) to above 30 years (31.5%) and represented a variety of fields of study, such as engineering, business and social sciences, arts, law, sciences, basic and medical sciences. Regarding frequency of use, the author reported that 40.7% of participants occasionally used ChatGPT, and 26.1% and 16.7% used it frequently or very frequently, respectively. Of the five options that represented types of inquiries (religious, political, academic, entertainment, and work), academic and work-related inquiries were topics most often searched in ChatGPT. Participants indicated that they consulted reference librarians occasionally (40.8%), frequently (37%), or rarely (22.2%). Most students (87%) would continue to consult reference librarians despite the availability of ChatGPT. For questions that compared ChatGPT to reference librarians, four options were provided to describe potential advantages and four options were provided to describe potential disadvantages. Most students agreed or strongly agreed that ChatGPT is more user friendly (83.4%), that it includes a broad knowledge base (90.7%), is easily accessible (83.3%), and saves time by responding to questions quickly (98%) compared to reference librarians. Fewer than half of the students agreed or strongly agreed that ChatGPT's knowledge base is not up to date (47.2%). Most agreed or strongly agreed that it cannot comprehend some questions (72.3%), that it cannot read emotions as a librarian would (74.1%), and that responses to questions may be incorrect (66.6%). The potential advantage with the strongest response score was that ChatGPT saves time by responding to questions quickly (mean 3.52). The potential disadvantage with the strongest response score was ChatGPT could not read emotions as a librarian would (mean 2.91).

Conclusion – Students from an academic institution acknowledged the potential advantages and disadvantages of ChatGPT over reference librarians, yet the majority of students would continue to utilize reference librarian services. The author suggests that ChatGPT is a versatile and useful tool as a supplement rather than a replacement for knowledgeable and personable reference librarians. Based on the results of the study, the author emphasizes the importance of interpersonal skills and enhanced accessibility of reference librarians outside of typical work hours.

Commentary

This research was appraised with Burns and Kho's (2015) guide to assessing survey research. While the author elicited some valuable information from their survey, the author reported limitations to their study. The sample was small and from an undergraduate population from one university, thereby limiting its generalizability. The author stated that they "did not explore other factors that may influence their [students'] preference for reference consultations" (Adetayo, 2023, p. 143). This is reflected in the broad nature of the study questions and limited range of responses available in determining types of inquiries and perceived advantages and disadvantages of using ChatGPT rather than the reference librarian. Participants were restricted to five categories when asked the type of inquiry made while using ChatGPT and restricted to four options each regarding advantages and disadvantages to using ChatGPT. These may not have reflected the user's full perception or use of ChatGPT. Having a place for open-ended responses would have strengthened the study, as well as having an option of neither agree nor disagree (5-point Likert scale). Open-ended responses could have directed the author in future research on the same topic, with the potential to alter or expand the items investigated. With regard to measuring frequency of use, defining numerically the range of frequencies may also have strengthened the study. Terms such as rarely, occasionally, or frequently may be interpreted differently, leading to inconsistencies in responses.

This study topic is current and generated findings significant to the author's institution. Even though the information elicited derives from a small sample, the author reports student agreement with

benefits and limitations to ChatGPT that are reflected in other publications (Prathiba, 2021; Yamson, 2023).

The artificial intelligence (AI)-powered chatbot ChatGPT can be programmed to meet the needs of an institution, has shown value in answering common questions regarding hours, events, and services, and can potentially reduce the workload of librarians, leaving them free for more complex questions (Prathiba, 2021; Yamson, 2023). ChatGPT uses natural language, is available 24/7, and responds quickly. When asked, it can provide a list of 10 realistic examples of how it can assist reference librarians in enhancing the efficiency of library services, including answering reference questions, language translation, or generating reading lists (OpenAI, 2024). ChatGPT, however, relies on pre-existing data that was last updated January 2022. When this reviewer prompted ChatGPT about the limitations of using ChatGPT in the reference library, the generated response stated that ChatGPT "may not always provide accurate information, especially for complex or specialized topics," that it does not provide the expertise of human librarians, and that it may not always interpret questions correctly (OpenAI, 2024).

The use of artificial intelligence chatbots, such as ChatGPT, is increasing. Reference librarians should embrace these tools that can enhance efficiency and should assist students in using them responsibly. However, librarians should also be mindful of the limitations of this technology. Based on the study findings, the author suggests that libraries prioritize accessibility and investigate the option of providing reference consultations outside of typical work hours as well as explore ways to incorporate ChatGPT as a supplement to traditional reference services. The author advocates for interpersonal skills training for librarians to build strong communication skills in order to provide students with the information needed to succeed in a comfortable atmosphere.

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