

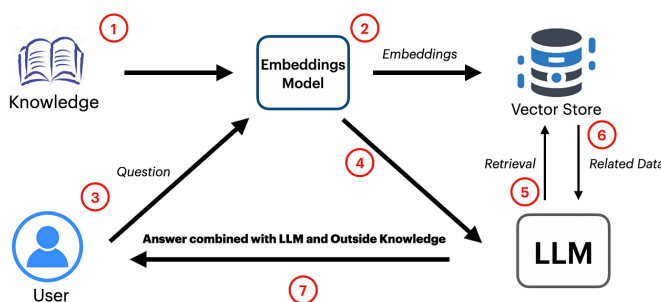
Enhancing Remote Working Hubs Through Personalised Assistance Using LLMs

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The rapid adoption of remote work has led to the rise of Remote Working Hubs (RWHs). However, these hubs face challenges in optimizing user experience and accessibility. Large Language Models (LLMs) offer a promising solution by delivering personalized assistance and enhancing user satisfaction. This paper explores the integration of LLMs within RWHs, highlighting their benefits, including automated task recommendations, enhanced accessibility, and economic contributions. Additionally, it addresses critical challenges in human centered aspects. By examining current research and potential applications, this study aims to outline strategies for ethically and effectively leveraging AI-driven personalization in remote workspaces. Future research should focus on refining LLM capabilities to support a more inclusive, efficient, and human-centered approach to remote working.

INTRODUCTION

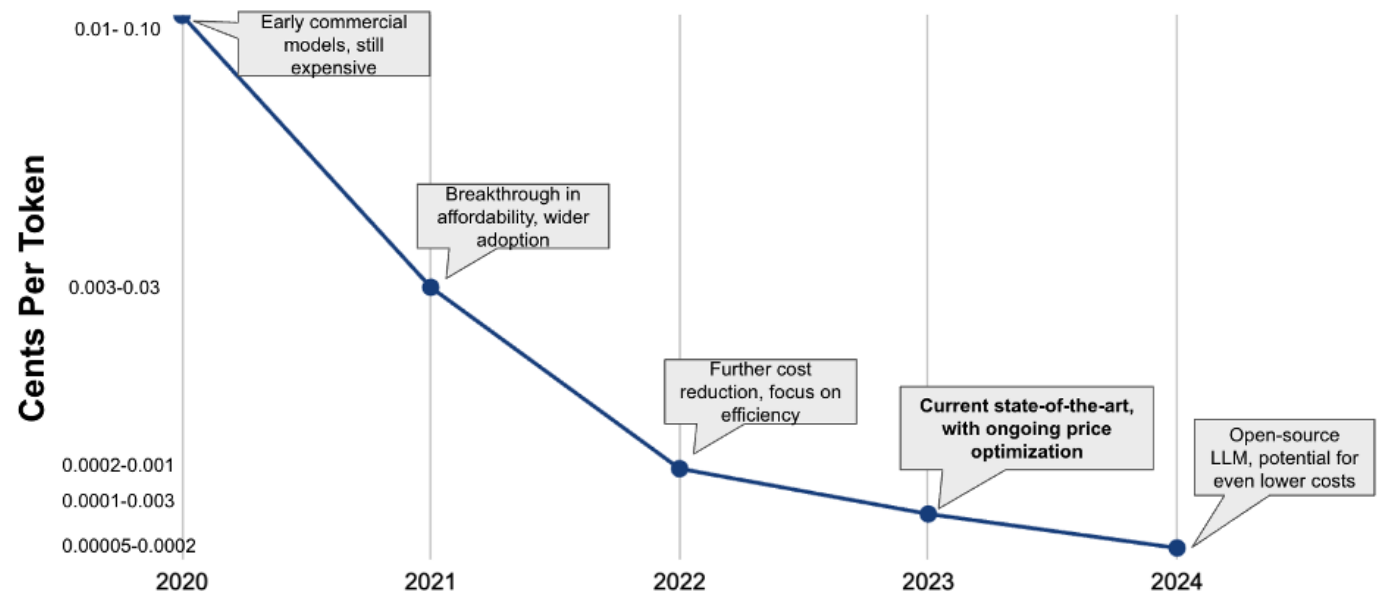
RAG Enhanced Chatbot



[1]. <https://medium.com>

While these hubs offer flexibility, they can also benefit from advanced AI to improve personalised support, manage resources efficiently, and enhance the user experience. Large Language Models (LLMs) like ChatGPT offer transformative potential in this setting by delivering tailored support through conversational AI. However, deploying LLMs within RWHs requires addressing unique human-centered challenges: understanding user needs, balancing personalization with privacy, ensuring equitable access, and improving accessibility across diverse user groups. Integrating LLMs for personalised assistance in RWHs presents an opportunity for socially impactful AI research. A human-centered approach is crucial to ensure these systems genuinely support users by focusing on empathy, inclusivity, and the specific needs of remote workers. By enabling RWHs to optimise services, LLMs can drive efficiency, enhance user satisfaction, and ultimately support the social and economic benefits of remote work environments.

LLM Pricing In Across Years



[2]. <https://medium.com>

Moreover, designing AI-driven systems that understand and respect users' diverse needs can help create a more supportive and engaging work environment, particularly for underserved communities.

LITERATURE REVIEW

Research on AI integration in co-working and remote workspaces is still in its early stages. Previous studies have examined AI-driven workspace optimization (Lee & Carter, 2021), but limited research has focused specifically on LLMs in RWHs. Some gaps in the existing literature include:

- Limited user studies on AI-enhanced remote work hubs – Empirical research evaluating user satisfaction with LLM-assisted platforms is scarce.
- Scalability of LLM solutions in diverse work environments – While AI has shown promise in workplace management, its performance in varied cultural and geographic settings remains underexplored.

RESEARCH METHODOLOGY

The technique would follow a structured approach. Initially, data received from CeADAR would be studied and analyzed to form the basis for developing a chatbot capable of addressing the needs of users searching for remote working hubs. The next phase would involve integrating this chatbot into an existing website to ensure seamless functionality. Subsequently, a public survey would be conducted among platform users to assess the differences in their experiences when manually searching for remote working hubs using filters and search bars compared to utilizing an LLM-based chatbot for the same purpose.

PRELIMINARY CONSIDERATIONS

In case research proves successful, it has the potential to significantly transform time-consuming searches on various websites by making them more efficient, enhancing user satisfaction, and contributing to the overall economic success of the development. Additionally, if this approach were adopted across multiple websites or applications, it would provide developers and researchers with valuable data to further refine and enhance large language models.

CONCLUSIONS

The goal of this research is not to revolutionize the world but to provide users with a simple yet effective tool that enhances their daily productivity and work efficiency. By introducing an LLM-powered assistant, remote workers can experience more efficient and personalized search experiences, reducing the time and effort required to find optimal workspaces. Beyond its direct applications, this research contributes to the broader scientific understanding of how Large Language Models can improve real-world search functionalities. It provides valuable insights into the practical applications, limitations, and benefits of AI-driven search systems, offering a data-backed foundation for future advancements in personalized digital assistance.

References.

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