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LEVERAGING ARTIFICIAL INTELLIGENCE (AI) IN COMPETITIVE INTELLIGENCE (CI) RESEARCH

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ABSTRACT

Objective: The rapid advancement of artificial intelligence (AI) has significantly influenced research and academic practices, prompting universities to create guidelines for student use of large language models (LLMs). However, there is ongoing debate among academic journals and conferences regarding the necessity of reporting AI assistance in manuscript development. This paper aims to explore diverse perspectives on the use of LLMs in scholarly research, particularly within the context of competitive intelligence (CI), and to offer guidelines for CI researchers on how to effectively leverage AI tools like GPT models.

Method: The study conducts a comprehensive review of existing literature on the integration of AI in academic research, focusing specifically on the capabilities of generative AI models such as ChatGPT-4, Scholar GPT, and Consensus GPT. These models, developed by OpenAI, are evaluated for their utility in various stages of the research process, including literature review, qualitative analysis, and data analysis. The analysis emphasizes how the quality of AI-generated outputs depends on the specificity of the user's input.

Results: While LLMs have demonstrated significant potential in enhancing literature reviews, qualitative research, and data analysis, the study finds that their full capabilities in academic research remain underexplored. The research highlights both the concerns about potential "contamination" of scholarly work through AI use and the benefits these models offer, especially when used strategically.

Conclusions: The article presents a structured guide for business researchers, with particular emphasis on those engaged in competitive intelligence, to integrate AI language models effectively throughout the research process. The findings underline the importance of input specificity and provide practical recommendations for leveraging LLMs to enhance research efficiency and output quality.

Keywords:
Artificial Intelligence (AI), Large Language Models (LLMs), Scholarly Research, Competitive Intelligence (CI), GPT Models

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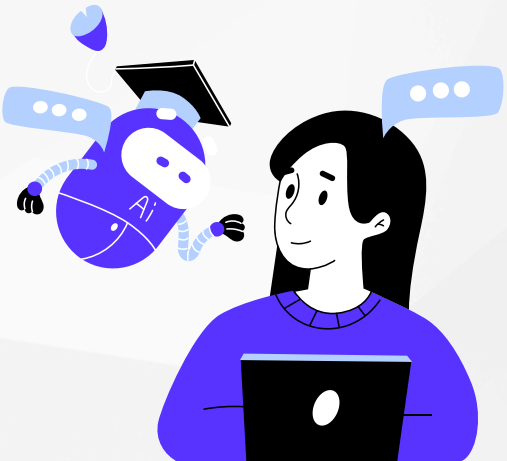

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Introduction

Rapid advancements in artificial intelligence (AI) have disrupted how people and organizations engage with their work, including organizational research and academia (Butson & Spronken-Smith, 2024). Universities are scrambling to establish protocols for student use of large language models (LLMs) for completing coursework and other tasks (Boyd, 2023). At the same time, peer-reviewed journals (PRJs) and research conferences have yet to reach a consensus on if and how authors are required to report the use of AI assistance in developing submitted manuscripts (Garcia, 2024; Perkins & Roe, 2023; Rahman et al., 2023; AI Trends for Sales, 2024).

The general lack of agreement on using LLMs for research can be observed in recent publications where a spectrum of views range from labeling it as detrimental contamination (Gray, 2024) to recognizing it as a promising advancement (Rane et al., 2023). The benefits and drawbacks of using LLMs and AI are topics extensively addressed in other publications (Bostrom & Yudkowsky, 2018; Butson & Spronken-Smith, 2024; Dwivedi et al., 2023; Snowflake, 2024). Building upon the extant literature, this paper explores options and presents guidelines for CI researchers to use LLMs, specifically GPT models such as ChatGPT4, Scholar GPT, and Consensus GPT, as tools to optimize each phase of the research cycle for business research focused on competitive intelligence.

A GPT model is an LLM developed by OpenAI based on Generative Pre-Trained Transformer (GPT) architecture (Lund & Wang, 2023). These methods employ generative AI language models, enabling it to create entirely new content based solely on user-provided question prompts. The quality of its output depends on the input it receives, considering both its training data and the prompts provided by users to define and refine the task.

Recently, GPT models have been recognized in the literature as an AI tool that can assist researchers in executing the research process (Budhwar et al., 2023; Burger et al., 2023). ChatGPT is widely known for producing credible written text and textual analysis, including sentiment analysis. But many other areas of the research process are ripe for researchers to collaborate with ChatGPT as well as other GPT platforms. This article provides an overview of extant research on integrating GPT models in the different phases of research the process. We also propose a holistic guide for business researchers to implement AI language models throughout the planning, structuring, and execution phases of the research process, and provide specific suggestions for business research focused on competitive intelligence.

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Research and AI

Despite notable advancements in AI technology in recent years, its full potential in research remains largely untapped, leaving numerous opportunities unexplored (Ciechanowski et al., 2020; Vaid et al., 2023) . For example, GPT models have been used for systematic literature reviews (Atkinson, 2024), qualitative analysis (Hamilton et al., 2023), and data analysis (Sarstedt et al., 2024), yet few published works demonstrate how to utilize multiple models such as ChatGPT, Scholar GPT, and Consensus GPT across each stage of the research process. Although all three GPT models are based on the same architecture, they are trained using different data sets. ChatGPT is trained on diverse internet text, including social media conversations, forums, and news articles (OpenAI, 2024). It is fine-tuned for natural language understanding, conversation, question answering, and general-purpose dialogue tasks.

Scholar GPT is trained on academic text, including scholarly publications, research papers, and scientific articles. It is configured specifically for tasks related to academic writing, understanding scientific language, citations, research methodologies, and domain-specific terminology (OpenAI, 2024). Consensus GPT is trained on a combination of data sources. It is directly integrated with the chat.consensus.app API, which extracts relevant research findings directly from academic papers listed in the Consensus database. It is also adapted for specific tasks related to scientific research and academic inquiries (OpenAI, 2024).

The differences in the training data sets and configurations can collectively provide researchers with access to nuanced information and feedback that can, in turn, be applied to improving inputs and outcomes at each stage of the research process. When multiple GPT models are used in combination, the opportunities to improve efforts and outcomes related to the research process can be expanded. Figure 1 provides an overview of the research process as a progression through three phases: Planning, Structuring, and Execution (Mouton & Marais, 1988).

FIGURE 1. THE RESEARCH PROCESS

RESEARCH PHASES VENN DIAGRAM

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Competitive intelligence (CI) is the process of gathering, analyzing, and utilizing information about competitors, market trends, and industry dynamics to support strategic decision-making within businesses (Miller, 2012). It involves systematically collecting data from various sources—such as financial reports, market analysis, and industry publications—to gain insights into competitor actions and emerging opportunities or threats (Rocha & Lopes, 2023). GPT models are an ideal tool for CI researchers because the models have the capability to rapidly analyze vast amounts of academic and industry-specific texts to summarize key findings, identify emerging trends, and highlight gaps in the existing literature. Furthermore, CI researchers can use ChatGPT to generate search strings, review relevant articles, and synthesize complex information, saving valuable time and effort. By automating repetitive tasks and providing real-time feedback on the structure and clarity of research, ChatGPT enables CI researchers to focus more on strategic analysis and less on manual data gathering and processing.

Planning Research

One of the initial stages of any research project is conducting a comprehensive literature review of relevant publications. Building and relating research to existing knowledge is fundamental in conducting research across all disciplines, and doing so accurately should be prioritized by academics. This task is increasingly complex, however, due to the rapid increase in knowledge production associated with the emergence of 'Big Data' (Snyder, 2019). GPT models can assist researchers in this process by quickly analyzing vast amounts of textual data from academic journals, books, and online sources such as news and social media. Some examples of available functions include using GPT models to generate search strings to identify relevant literature, summarizing key findings for specific articles, identifying existing literature gaps, and generating annotated bibliographies. Example prompts for utilizing a GPT model in conducting literature reviews are presented in Table 1. For a more comprehensive overview, Nguyen-Trung et al. (2023) provide a detailed step-by-step guide for researchers to utilize GPT models for literature review tasks.

Table 1. Prompts for literature review tasks focused on CI research

Tell me about trends and key findings in research related to competitive intelligence.	Could you summarize the main themes and debates in the literature on competitive intelligence?
What are the emerging trends or gaps in the literature regarding competitive intelligence?	I'm looking for the prevailing methodologies used in research related to competitive intelligence.
Can you provide an overview of recent studies on competitive intelligence?	Please develop a search string that helps answer the following [competitive intelligence research objectives]
Please suggest seminal papers or influential authors in the field of competitive intelligence.	Generate a competitive intelligence report in the [focal industry) that assesses similarities and differences between key competitors

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Previous research has noted that GPT model responses specifically related to generating literature reviews can result in made-up (non-existent) references alongside legitimate references (Rahman et al., 2023). Furthermore, GPT models are trained on extant data sets that are not current, which means that even legitimate sources will not reflect the state-of-the-art knowledge in the specific field of research. Therefore, if researchers are using a GPT model to generate listings of articles and references, it is essential to cross-check the GPT model output and perform additional literature searches across multiple sources to ensure the information contained in the literature review reflects accurate knowledge of recent findings related to the specific research topic. Of the three GPT models reviewed in this research, the Consensus GPT has real-time access to research databases (OpenAI, 2024) and is less likely to generate made-up references while providing more nuanced literature synthesis.

Generating and refining the research questions and relevant hypotheses is also integral to the research planning phase (Creswell & Creswell, 2017). GPT models are most widely recognized as a useful tool for idea generation (Girotra, 2023). When researchers utilize GPT models to help generate research questions and hypotheses, they have an improved capacity to explore multiple iterations, refine ideas, and incorporate feedback based on existing literature or files uploaded to the GPT model by the researcher. For example, researchers can input specific research questions or keywords, prompting GPTs to produce potential hypotheses. Researchers can also prompt the GPT to provide feedback on their draft research questions and hypotheses. Steps for using GPTs to assist researchers in generating and refining research questions and hypotheses can be found in Table 2.

Table 2. Steps in generating research questions and hypotheses with a GPT model

Researchers can use GPT models to generate research questions and hypotheses by following these steps

Specify Research Area	Clearly define the area or topic of interest for the research.
Identify Variables	Determine the variables, factors, or concepts that are relevant to the research topic.
Frame Initial Questions	Based on the research topic and identified variables, frame initial questions that explore relationships, causality, trends, or comparisons.
Input Prompts	Use specific prompts to generate research questions and hypotheses. For example: "Generate research questions exploring the impact of leadership on turnover intentions."
Iterate and Refine	Review the generated questions and hypotheses and refine them based on relevance, feasibility, and alignment with research goals.
Evaluate and Validate	Evaluate the generated research questions and hypotheses using criteria such as clarity, testability, significance, and alignment with existing literature.

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Although GPT models can be used to identify trends and patterns in research to help generate research questions and hypotheses, recent works have identified several intrinsic challenges and implications. For example, Knopp et al. (2023) demonstrate that using ChatGPT-4 specifically for hypothesis generation has both promising possibilities and significant risks associated with AI-driven educational frameworks. Furthermore, Park et al. (2024) Identified that error rates can be high when researchers utilize GPTs to generate testable hypotheses. These studies suggest that while GPTs can support generating interesting research questions and testable hypotheses, their use must be carefully calibrated to address specific academic and ethical standards. These referenced studies utilized ChatGPT. Information was not found to evaluate whether applying Scholar GPT or Consensus GPT would produce the same number and type of errors.

Structuring Research

Research design encompasses choosing the appropriate designs (e.g., experimental, correlational, cross-sectional), data collection and analytical methods that align with the research questions and hypotheses. The appropriate approach is based on the nature of the research problem and the study's audience (Cresswell & Cresswell, 2017). Researchers can use GPT models such as Scholar GPT and Consensus GPT for feedback and also to refine proposed study design choices.

An emerging area for using GPT models to assist in carrying out research is executing different methods of data analysis. Researchers have used GPT models to qualitatively assess survey items for clarity and appropriateness (Sarstedt et al., 2024). Researchers have also used GPT models to generate insights from unstructured data, such as text transcripts or open-ended survey responses (Hassani & Silva, 2023). Furthermore, GPT models have proven to be useful in scenario-based research to generate hypothetical outcomes based on diverse viewpoints (Grossman et al., 2023).

GPTs can assist researchers in carrying out quantitative analysis in addition to qualitative data analysis. As an example of ChatGPT capabilities, one of the authors of the Hair et al., multivariate book (2019) submitted a table of results from the book for a multiple regression model using the HBAT dataset.

The table included the R, R2, beta coefficients, and significance levels, and the prompt requested the results be interpreted. The interpretation was essentially the same as in the textbook. In addition, Intellectus Statistics software (https://www.intellectusstatistics.com) claims to enable individuals with limited statistical training to execute statistical analysis and interpret the results. As another component of this research, the functionality of ChatGPT was explored and tested for this article by using a small published dataset containing annual counts of articles published in top-tier information systems journals. Scholar GPT was prompted: Analyze this dataset and provide the cumulative count of articles for each year and a chart showing the progression of the number of articles from year to year. The resulting output is presented in Figure 2.

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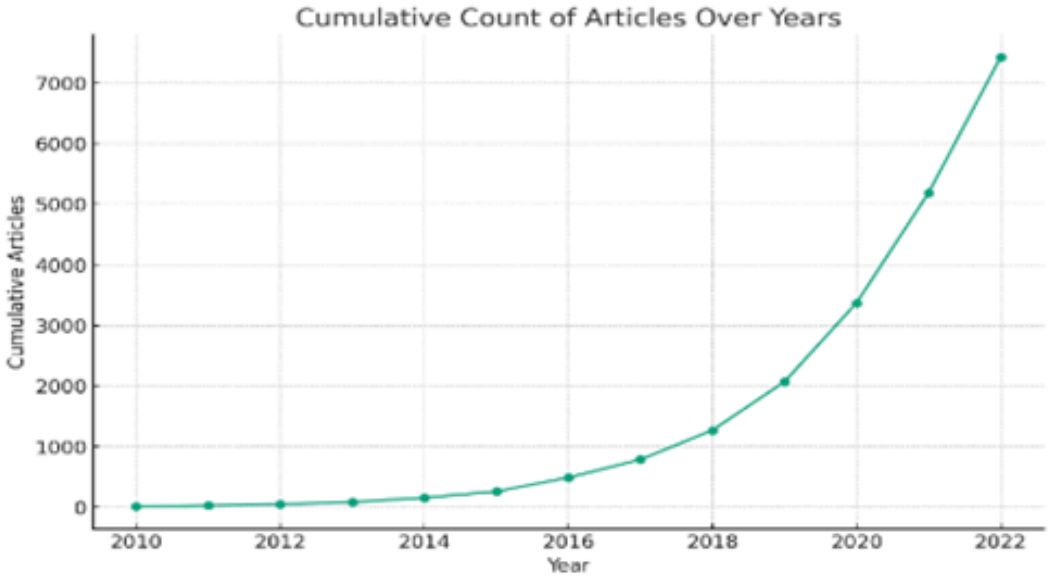
FIGURE 2. SCHOLAR GPT DATA ANALYSIS

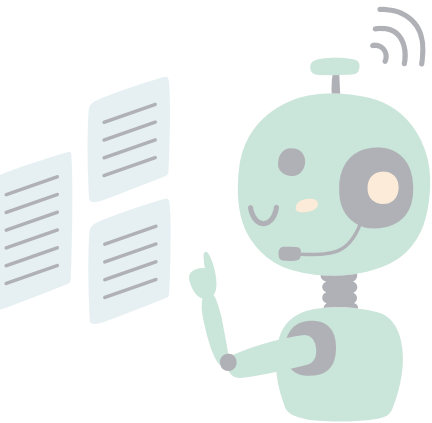
Scholar GPT



The cumulative count of articles per year from the dataset is displayed in the table below:

Year	Articles	Cumulative Articles
2010	11	11
2011	16	27
2012	21	48
2013	35	83
2014	71	154
2015	105	259
2016	229	488
2017	297	785
2018	485	1270
2019	799	2069
2020	1302	3371
2021	1817	5188
2022	2238	7426

The chart above illustrates the progression of the cumulative count of articles from year to year, showing a significant increase, particularly in the later years. [>-]



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The GPT model's output was an exact replica of the published data (Sabol et al., 2023). In addition, Khalifa and Albadawy (2024) recently highlighted GPTs' emerging role in assisting researchers with data management in a systematic review of AI in academic research, in which a number of studies were identified as utilizing AI to curate, interpret, and visualize data. While there is support in the literature for using GPT models to manage data challenges have emerged when using GPT models to generate data. For example, bias selection toward the first choice in a binary choice question have shown that GPTs can be sensitive to the order of response options in surveys (Brand et al., 2023). Chen et al. (2023) found that ChatGPT responses contained bias when presented with risk/reward scenarios because the ChatGPT responses showed significantly different risk preferences than humans. Researchers who use ChatGPT for this task risk being misled by false or biased information. Scholars must remain vigilant and hold themselves accountable, therefore, for ensuring that AI-assisted data management and analysis is human expert-driven (Van Dis et al., 2023).

Executing Research

Preparing academic manuscripts presents challenges that differ based on the writer and the field, and require the management of extensive information, intricate concepts, and empirical data with clarity and insight. This process demands a thorough grasp of the topic and the skill to simplify complex concepts while upholding standards of accuracy, evidence, and logical organization, including using formal language and specialized terminology. Because writing scholarly articles, reports, and manuscripts can be time-consuming and challenging, researchers are increasingly using GPT models to help ensure the clarity, coherence, and quality of academic output (Golan et al., 2023).

ChatGPT, Scholar GPT, and Consensus can serve as writing assistants by providing suggestions for structuring arguments, improving readability, and enhancing language coherence. Researchers can collaborate with the GPT models to draft sections of their papers, receive real-time feedback, and obtain assistance with formatting citations and references. Although GPT models are hailed for their extensive language processing ability, complaints have emerged about overly generalized responses and potential bias in responses. Furthermore, numerous studies have identified the tendency for GPT models such as ChatGPT to provide inaccurate information. Therefore, GPT models should be used only as collaborators not coauthors (Khlaif et al., 2023), providing input and guidance, but not final decision-making.

In response to the concerns around vague and inaccurate responses by GPT models, the concept of prompt engineering is becoming increasingly important. Prompt engineering is providing specific instructions or queries to a language model to guide its desired outputs. (Giray, 2023). Recently, several studies have published recommendations for prompt engineering, specifically for academic writing (Bang et al., 2023; Mesko, 2023; Wang et al., 2023).

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These studies found that the use of prompt engineering can be beneficial in generating answers to questions that are based on the provided facts and prompts. Prompt engineering, as presented in those studies, varied according to the type of reasoning and output that the researcher desired. Thus, utilizing a GPT model is much like using any technology; the output quality depends on the quality of the inputs.

Prompts can be just as crucial as the training data for any researcher who uses GPT models for research collaboration and refinement. Giray (2023) provides guidelines and detailed instructions for academic writers to employ prompt engineering techniques for academic writing.

Observations and Conclusions

ChatGPT and similar LLMs will no doubt lead to a total restructuring of academic jobs as we have known them for the past seventy plus years. Indeed, scholars are just beginning to explore and understand the vast potential of AI to streamline and enhance the research, writing and analysis phases of the academic publishing process, not to mention the impact these developments will have on teaching. These tools will produce many positive outcomes, but will have side effects that will be perceived as negative.

As AI automation is implemented the number of professor positions will decline due to the implementation of efficiencies, including teaching Bots, lecture preparation and delivery, grading, and as we note in this paper, preparation of scholarly publications. Some individuals will view these developments as positive and others as negative, depending on whether you are a professor or an administrator. In this paper we have shared potential developments primarily on the topic of publishing, but there are related developments which must be considered, such as the ethical implications of implementing AI-assisted approaches with the traditional research, teaching, and service roles of academicians.

ChatGPT offers numerous benefits for academics. In addition to the recommended backstop checks and verifications suggested in this paper, researchers must also consider ethical considerations, such as bias detection and transparency in AI-generated content.

Academic researchers should use ChatGPT responsibly and disclose any AI-generated contributions in their publications. In pursuit of furthering transparency in AI-generated content, articles that focus on using AI for research are beginning to include acknowledgments and declarations in their manuscripts. Table 3 contains some examples of author statements regarding the use of AI in the development of their manuscripts.

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TABLE 3. SAMPLE AUTHOR STATEMENTS

Example Statements Regarding the Use of AI	Author
During the preparation of this work the author(s) used OpenAI's ChatGPT in order to explore potential scientific use of generative AI. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.	Park, et al., 2024
During the preparation of this work, the author used ChatGPT in order to [please refer to the explanations in the text]. After using this tool/service, the author reviewed and edited the content as needed and takes full responsibility for the content of the publication.	Kesting, 2024
The manuscript was edited for grammar and structure using the advanced language model ChatGPT.	Golan et al., 2023

Researchers who use GPT models to assist in the research process should include a statement regarding the use of AI. This statement would include the scope of GPT model usage in the research as well as the specific steps the author took to ensure the content was human expert-driven and edited. Taking the time to include such statements will be an important step in addressing concerns related to transparency in the use of AI-generated content for research, particularly publishing in academic journals.

Overall, GPT models present a valuable opportunity for researchers to optimize the research cycle and enhance the productivity and quality of scholarly works. Researchers can accelerate the pace of discovery and innovation in their respective fields by leveraging the capabilities of GPT models in preparing literature reviews, data analysis, hypothesis generation, writing assistance, collaboration, and peer review. Although GPT models hold much promise for optimizing the research process, researchers should heed the issues and recommendations described in this research supporting the guideline of trusting GPT model output only when it can be verified independently.

Furthermore, by using the guidelines, business researchers can create tailored approaches for GPT-integrated research projects that consider the ethical, practical, and interdisciplinary nuances of business studies.

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Other Implications

The integration of GPT models into business and academic research can substantially transform traditional methodologies. More specifically, GPTs can be used in an interdisciplinary manner, integrating insights from economics, psychology, management, marketing and sociology to enhance the robustness and relevance of findings. This interdisciplinary approach is crucial for addressing complex business problems. By leveraging the capabilities of GPT models, researchers across business disciplines can enhance the efficiency and accuracy of their analyses, leading to deeper insights into complex phenomena and more informed decision-making in policy and business strategy.

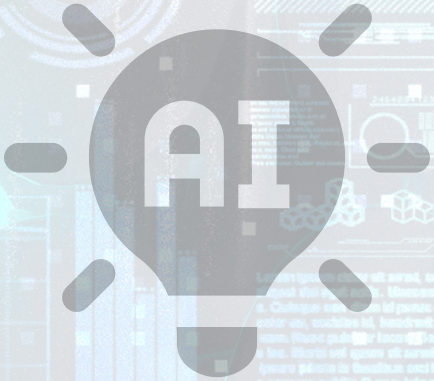
The suggestions presented in this paper carry significant managerial implications, particularly for small to medium-sized enterprises (SMEs) looking to enhance their competitive intelligence capabilities without incurring high costs. The adoption of large language models (LLMs) such as ChatGPT, Scholar GPT, and Consensus GPT presents a transformative opportunity for these businesses by providing an affordable, scalable solution to conducting competitive assessments. LLMs can streamline processes like data analysis, and report generation, which traditionally require extensive time and resources.

For SMEs with limited budgets, leveraging LLMs offers access to high-quality analysis and strategic insights that can improve decision-making without the need for specialized in-house expertise. By integrating LLMs into their competitive intelligence strategies, managers can enhance market understanding, track competitor trends, and optimize business operations, ultimately positioning their firms to better compete with larger, resource-rich competitors.

Declarations

During the preparation of this work, the author used OpenAI's ChatGPT, Scholar GPT, and Consensus GPT to explore potential scientific use of generative AI for academic research. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

No financial support was received for this work. The authors have no conflicts of interest to report.



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E-ISSN: 2965-4688

References

Atkinson, C. F. (2024). Cheap, quick, and rigorous: Artificial intelligence and the systematic literature review. Social Science Computer Review, 42(2), 376-393.

Bang, Y., Cahyawijaya, S., Lee, N., Dai, W., Su, D., Wilie, B., ... & Fung, P. (2023). A multitask, multilingual, multimodal evaluation of chatgpt on reasoning, hallucination, and interactivity. arXiv preprint arXiv:2302.04023.

Bostrom, N. and Yudkowsky, E. (2018), "The ethics of artificial intelligence", in Artificial Intelligence Safety and Security, Chapman and Hall/CRC, pp. 57-69.

Boyd, A. (2023, October). Higher Ed Grapples with AI's Impact. Voltedu. Retrieved from https://voltedu.com/education-administration/higher-ed-grapples-with-ais-impact/

Brand, J., Israeli, A., & Ngwe, D. (2023). Using gpt for market research. Available at SSRN 4395751.

Budhwar, P., Chowdhury, S., Wood, G., Aguinis, H., Bamber, G. J., Beltran, J. R., ... & Varma, A. (2023). Human resource management in the age of generative artificial intelligence: Perspectives and research directions on ChatGPT. Human Resource Management Journal, 33(3), 606-659.

Burger, B., Kanbach, D. K., Kraus, S., Breier, M., & Corvello, V. (2023). On the use of AI-based tools like ChatGPT to support management research. European Journal of Innovation Management, 26(7), 233-241.

Butson, R., & Spronken-Smith, R. (2024). AI and its implications for research in higher education: a critical dialogue. Higher Education Research & Development, 43(3), 563-577.

Chen, Y., Andiappan, M., Jenkin, T., & Ovchinnikov, A. (2023). A Manager and an AI Walk into a Bar: Does ChatGPT Make Biased Decisions Like We Do?. Available at SSRN 4380365.

Ciechanowski, L., Jemielniak, D., & Gloor, P. A. (2020). TUTORIAL: AI research without coding: The art of fighting without fighting: Data science for qualitative researchers. Journal of Business Research, 117, 322-330.

Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.

Dwivedi, Y.K., Kshetri, N., Hughes, L., Slade, E.L., Jeyaraj, A., Kar, A.K., Baabdullah, A.M., Koohang, A., Raghavan, V., Ahuja, V., Albanna, A., Albashrawi, M.A., Al-Busaidi, A.S., Balakrishnan, J., Barlette, Y., Basu, S., Bose, I., Brooks, L., Buhalis, D., Carter, L., Chowdhury, S., Crick, T., Cunningham, S.W., Davies, G.H., Davison, R.M., De, R., Dennehy, D., Duan, Y., Dubey, R., Dwivedi, R., Edwards, J.S., Flavian, C., Gauld, R., Grover, V., Hu, M.C., Janssen, M., Jones, P., Junglas, I., Khorana, S., Kraus, S., Larsen, K.R., Latreille, P., Laumer, S., Malik, T.F., Mardani, A., Mariani, M., Mithas, S., Mogaji, E., Horn Nord, J., O'Connor, S., Okumus, F., Pagani, M., Pandey, N., Papagiannidis, S., Pappas, I.O., Pathak, N., Pries-Heje, I., Raman, R., Rana, N.P., Volker Rehm, S., Ribeiro-Navarrete, S., Richter, A., Rowe, F., Sarker, S., Carsten Stahl, B., Tiwari, M.K., van der Aalst, W., Venkatesh, V., Viglia, G., Wade, M., Walton, P., Wirtz, J. and Wright, R. (2023), "'So what if ChatGPT wrote it?' Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy", International Journal of Information Management, Vol. 71, 102642, doi: 10.1016/j.ijinfomgt.2023.102642.

Garcia, M. B. (2024). Using AI tools in writing peer review reports: should academic journals embrace the use of ChatGPT?. Annals of biomedical engineering, 52(2), 139-140.

Giray, L. (2023). Prompt engineering with ChatGPT: a guide for academic writers. Annals of biomedical engineering, 51(12), 2629-2633.

https://doi.org/10.24883/eagleSustainable.v15i.469

E-ISSN: 2965-4688

Girotra, K., Meincke, L., Terwiesch, C., & Ulrich, K. T. (2023). Ideas are dimes a dozen: Large language models for idea generation in innovation. Available at SSRN 4526071.

Golan, R., Reddy, R., Muthigi, A., & Ramasamy, R. (2023). Artificial intelligence in academic writing: a paradigm-shifting technological advance. Nature reviews urology, 20(6), 327-328.

Gray, A. (2024). ChatGPT" contamination": estimating the prevalence of LLMs in the scholarly literature. arXiv preprint arXiv:2403.16887.

Grossmann, I., Feinberg, M., Parker, D. C., Christakis, N. A., Tetlock, P. E., & Cunningham, W. A. (2023). AI and the transformation of social science research. Science, 380(6650), 1108-1109.

Hamilton, L., Elliott, D., Quick, A., Smith, S., & Choplin, V. (2023). Exploring the use of AI in qualitative analysis: A comparative study of guaranteed income data. International journal of qualitative methods, 22, 16094069231201504.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate data analysis, (8th ed.). London: U.K., Cengage Learning.

Hassani, H., & Silva, E. S. (2023). The role of ChatGPT in data science: how ai-assisted conversational interfaces are revolutionizing the field. Big data and cognitive computing, 7(2), 62.

Khalifa, M., & Albadawy, M. (2024). Using artificial intelligence in academic writing and research: An essential productivity tool. Computer Methods and Programs in Biomedicine Update, 100145.

Kesting, P. (2024). How artificial intelligence will revolutionize management studies: a Savagean perspective. Scandinavian Journal of Management, 40(2), 101330.

Khlaif, Z. N., Mousa, A., Hattab, M. K., Itmazi, J., Hassan, A. A., Sanmugam, M., & Ayyoub, A. (2023). The potential and concerns of using AI in scientific research: ChatGPT performance evaluation. JMIR Medical Education, 9, e47049.

Knopp, M. I., Warm, E. J., Weber, D., Kelleher, M., & others. (2023). AI-Enabled Medical Education: Threads of Change, Promising Futures, and Risky Realities Across Four Potential Future Worlds. JMIR Medical Education, 2023(1). https://mededu.jmir.org/2023/1/e50373

Lund, B. D., & Wang, T. (2023). Chatting about ChatGPT: how may AI and GPT impact academia and libraries?. Library hi tech news, 40(3), 26-29.

Meskó, B. (2023). Prompt engineering as an important emerging skill for medical professionals: tutorial. Journal of Medical Internet Research, 25, e50638.

Miller, J. P. (2012). Millennium Intelligence: Understanding and Conducting Competitive Intelligence in the Digital Age. Journal of Sustainable Competitive Intelligence, 2(2). https://doi.org/10.24883/IberoamericanIC.v2i2.42

Mouton, J., & Marais, H. C. (1988). Basic concepts in the methodology of the social sciences. Hsrc Press.

Nguyen-Trung, K., Saeri, A. K., & Kaufman, S. (2023). Applying ChatGPT and AI-powered tools to accelerate evidence reviews. DOI: 10.31219/osf.io/pcrqf

OpenAI. (2024). ChatGPT (4.0 version) [Large multimodal model]. https://chat.openai.com/chat

Crossref doi

https://doi.org/10.24883/eagleSustainable.v15i.469

E-ISSN: 2965-4688

Park, Y. J., Kaplan, D., Ren, Z., Hsu, C. W., Li, C., Xu, H., ... & Li, J. (2024). Can ChatGPT be used to generate scientific hypotheses?. Journal of Materiomics, 10(3), 578-584.

Perkins, M., & Roe, J. (2023). Academic publisher guidelines on AI usage: A ChatGPT supported thematic analysis. F1000Research, 12.

Rahman, M., Terano, HJR, Rahman, N., Salamzadeh, A., Rahaman, S.(2023). ChatGPT and Academic Research: A Review and Recommendations Based on Practical Examples. Journal of Education, Management and Development Studies, 3(1), 1-12.

Rane, N. L., Tawde, A., Choudhary, S. P., & Rane, J. (2023). Contribution and performance of ChatGPT and other Large Language Models (LLM) for scientific and research advancements: a double-edged sword. International Research Journal of Modernization in Engineering Technology and Science, 5(10), 875-899.

Rocha, I., & Lopes, L. L. S. (2023). The Process of Implementing Competitive Intelligence in a Service Organization. Journal of Sustainable Competitive Intelligence, 13, e0438. https://doi.org/10.24883/IberoamericanIC.v13i.438

Sabol, M., Hair, J., Cepeda, G., Roldán, J. L., & Chong, A. Y. L. (2023). PLS-SEM in information systems: seizing the opportunity and marching ahead full speed to adopt methodological updates. Industrial Management & Data Systems, 123(12), 2997-3017.

Sarstedt, M., Adler, S. J., Rau, L., & Schmitt, B. (2024). Using large language models to generate silicon samples in consumer and marketing research: Challenges, opportunities, and guidelines. Psychology & Marketing.

Scopus. (2024). CiteScore metrics for Top 10% Journals: 5.3. Retrieved from https://www.scopus.com/sources.uri

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. Journal of business research, 104, 333-339.

Vaid, S., Puntoni, S., & Khodr, A. (2023). Artificial intelligence and empirical consumer research: A topic modeling analysis. Journal of Business Research, 166, 114110.

Van Dis, E. A., Bollen, J., Zuidema, W., Van Rooij, R., & Bockting, C. L. (2023). ChatGPT: five priorities for research. Nature, 614(7947), 224-226.

Wang, M., Wang, M., Xu, X., Yang, L., Cai, D., & Yin, M. (2023). Unleashing ChatGPT's Power: A Case Study on Optimizing Information Retrieval in Flipped Classrooms via Prompt Engineering. IEEE Transactions on Learning Technologies.

Crossref doi

https://doi.org/10.24883/eagleSustainable.v15i.469