

Evaluating the Potential of AI in Sports Consulting: Investigating ChatGPT-4's Ability to Consult an MLB Team



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Abstract

In the rapidly evolving landscape of Major League Baseball (MLB), the use of Artificial Intelligence (AI) and Large Language Models (LLM) like OpenAI's ChatGPT-4 are becoming increasingly relevant. This project investigates the practical application and limitations of ChatGPT-4 as a sports business consultant for the Chicago White Sox, one of the MLB's esteemed franchises.

The methodology involved using specific prompts to guide the AI in producing a strategic report detailing the impact of AI and LLM on the business operations of an MLB team. The generated report was comprehensive, covering aspects such as market analysis, stakeholder implications, financial considerations, and specific recommendations for the Chicago White Sox. The report was subsequently evaluated on various parameters, including structure, content, depth of analysis, and relevance to the task. While the AI model successfully replicated the framework and generic content of a professional consulting report, it faced limitations in providing specific and nuanced analysis due to the absence of real-time, proprietary, and confidential data.

Despite these limitations, ChatGPT-4 demonstrated significant potential in certain aspects, such as the rapid generation of structured reports, assisting with data analysis, and providing 24/7 availability. These strengths suggest promising avenues for integrating AI models like ChatGPT-4 as a supplementary tool in MLB consulting engagements, complementing the expertise of human consultants.

Introduction

The advent of Artificial Intelligence (AI) and Large Language Models (LLM) is profoundly reshaping industries worldwide, and Major League Baseball (MLB) is no exception. As these technologies continue to advance, their potential applications in sports management and consulting are expanding, opening up a plethora of opportunities for teams to gain a competitive edge both on and off the field. This project explores the intriguing intersection of AI, LLM, and MLB consulting, focusing specifically on the potential of OpenAI's ChatGPT-4 as a consultant for an MLB team - the Chicago White Sox.

ChatGPT-4, developed by OpenAI, is one of the most advanced LLMs to date. Trained on diverse datasets, it can generate human-like text based on the prompts it receives. While it has been used in a variety of applications from customer service to content creation, this project aims to push the boundaries of its use by investigating its potential as a sports business consultant.

In the highly competitive world of MLB, teams are constantly seeking new ways to improve their performance, both on the field and in the business operations that support it. MLB consulting typically involves strategic decision-making, financial planning, market analysis, and stakeholder management, among other tasks. The use of AI and LLM in this context is relatively new and unexplored, making this project both timely and significant.

The objective of this project is to evaluate the capabilities and limitations of ChatGPT-4 in the context of MLB consulting. By examining how well it can generate a strategic report for an MLB team, the project aims to provide insights into the potential and challenges of using AI and LLM in this industry, paving the way for future exploration and development in this area.

Methodology

This project utilized a hands-on, iterative methodology to examine the capabilities and limitations of ChatGPT-4 as a potential consultant for an MLB team. The process was designed to mirror a consulting engagement, in which ChatGPT-4 was prompted to generate a strategic report, then participate in a self-reflective assessment of the generated content.

Step 1: Defining the Task

Initially, the task was defined for ChatGPT-4. The AI model was given the objective to generate a comprehensive strategic report that discusses the impact of AI and LLM on the business operations of an MLB team, focusing specifically on the Chicago White Sox.

Step 2: Prompting the AI

The second step involved systematically guiding ChatGPT-4 through the process of producing the report. This was accomplished by providing a series of prompts, each one designed to elicit a specific section of the report, starting with the executive summary and ending with the conclusion. The process was iterative, and responses from the AI often informed subsequent prompts, mirroring the collaborative nature of a real consulting engagement.

Step 3: Self-Reflection and Criteria Generation

In a novel twist to the methodology, ChatGPT-4 was also prompted to generate criteria for assessing its performance. This involved asking the AI model to reflect on the strengths and weaknesses of its own report, and to suggest improvements. This step enabled the AI to contribute to its own evaluation process, providing a unique perspective on its capabilities and limitations.

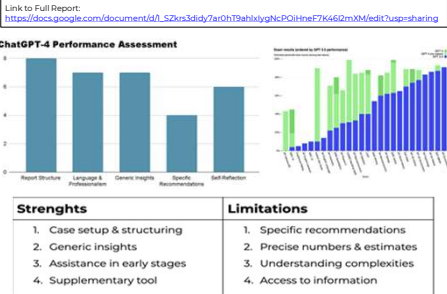
Step 4: Evaluating the Report

Once the report was generated, it was critically assessed based on the criteria developed in step 3, as well as its structure, content, depth of analysis, and relevance to the task. The evaluation process provided insights into how closely the report mirrored a professional consulting report, and how effectively it provided actionable insights and recommendations for the Chicago White Sox.

Step 5: Performance Analysis

Following the evaluation, an in-depth analysis was conducted to further understand the performance of ChatGPT-4. This involved a detailed study of the strengths and weaknesses of the report, and the inherent limitations of the AI, such as its lack of access to real-time data and proprietary information, and how these factors influenced the depth and specificity of the analysis.

This methodology, with its practical approach and inclusion of AI self-reflection, was chosen to facilitate a comprehensive and nuanced understanding of the potential role of ChatGPT-4 in MLB consulting. It provided a solid foundation for investigating the capabilities of AI in a specific, practical context, while also shedding light on areas of improvement and future research directions.



Results

The project's outcomes are twofold, including the strategic report generated by ChatGPT-4 and the assessment of the AI model's performance based on predefined criteria.

Strategic Report

ChatGPT-4 successfully generated a comprehensive strategic report for the Chicago White Sox, in line with a professional consulting report's structure. The report covered pertinent areas such as External Market Analysis, Implications of AI and LLM on Major League Baseball, and Specific Recommendations for the Chicago White Sox.

Performance Assessment

The performance of ChatGPT-4 was assessed based on the following predefined criteria, with each criterion rated on a scale from 1 (poor) to 10 (excellent):

- Report Structure (8/10): ChatGPT-4 displayed a strong understanding of report structure, creating a well-organized and logically sequenced document. The AI successfully incorporated all necessary sections of a standard consulting report.
- Language and Professionalism (7/10): The language used was professional and largely mimicked the style of consulting reports. However, there were some minor inconsistencies in tone and style along with noticeable repetitions.
- Generic Insights (7/10): The AI model was able to provide generic insights into the impact of AI and LLM on MLB, based on its training data. However, these insights lacked the depth and nuance that real-world, current data would provide.
- Specific Recommendations (4/10): While ChatGPT-4 made an attempt to provide specific recommendations for the Chicago White Sox, these were constrained by its lack of access to real-time and proprietary information about the team. Precise estimates were missing.
- Self-Reflection (6/10): The AI model demonstrated the ability to self-reflect on its performance and suggest improvements, although this was somewhat limited by the AI's inherent lack of self-awareness.

In conclusion, the results indicate that while ChatGPT-4 can provide a structured report and offer generic insights, its current limitations prevent it from achieving the depth of analysis and quantitative specificity of recommendations that a human consultant could provide. Nonetheless, its potential as a supplementary tool in the early stages of a consulting engagement is evident.

Analysis

The results from this project provide an intriguing exploration of the capabilities and limitations of ChatGPT-4 as a potential consultant for an MLB team. The analysis of these results involves a deeper understanding of both the strengths and weaknesses of the AI model in the context of the task it was given.

Strengths

ChatGPT-4's primary strengths lie in its ability to generate a structured report and provide generic insights based on its extensive training data. Scoring 8/10 in report structure, the AI model demonstrated an understanding of a typical consulting report's layout, producing coherent sections from Executive Summary to Conclusion. This strength is significant as the organizational structure of a report is crucial to its readability and effectiveness. The AI also scored reasonably well in language and professionalism (7/10) and generic insights (7/10). It was able to mimic professional language and produce general insights into the impact of AI and LLM on MLB. These strengths suggest that ChatGPT-4 could be a useful tool in the early stages of a consulting engagement, providing a starting point for deeper analysis.

Limitations

Despite these strengths, ChatGPT-4's performance was notably weaker in providing specific recommendations and self-reflection. The AI model scored 4/10 in specific recommendations, reflecting its inability to access real-time and proprietary information about the Chicago White Sox. Without such data, its recommendations were inherently generic and less valuable than those a human consultant could provide.

In self-reflection, ChatGPT-4 scored 6/10. While it was capable of generating self-critiques and suggesting improvements, these reflections were limited by the AI's inherent lack of self-awareness and inability to truly understand the content it generates.

Overall Assessment

In general, this analysis suggests that while ChatGPT-4 shows promise as a supplementary tool in MLB consulting, it falls short of replicating the depth of analysis and specific recommendations a human consultant can provide. Its strengths in report structure, language use, and generation of generic insights could be leveraged in initial stages of a consulting project, but its limitations in providing specific recommendations and self-reflection underline that it cannot replace human consultants.

Conclusion

This project sought to assess the potential and limitations of AI in professional consulting contexts, using Major League Baseball (MLB) as a specific case study. The aim was to understand the extent to which advanced AI, particularly large language models like OpenAI's ChatGPT-4, could replicate or augment the work of human consultants. The specific approach taken was to task ChatGPT-4 with generating a strategic report on the implications of AI and LLMs for MLB, with a focus on the Chicago White Sox.

ChatGPT-4 demonstrated considerable capabilities in producing a well-structured report, using professional language, and offering generic insights into the potential impact of AI and LLMs on MLB. These areas scored relatively high on our predefined evaluation scale, indicating the AI model's potential utility in the early stages of a consulting engagement.

However, the AI model's limitations became evident when it came to providing specific recommendations for the Chicago White Sox and reflecting on its own performance. Due to its inability to access real-time, proprietary, and confidential information, ChatGPT-4's recommendations were generic rather than tailored. Moreover, while the AI was able to generate self-critiques, these reflections were limited by its inherent lack of self-awareness and understanding of the content it creates.

The general conclusion from this investigation is that while AI and LLMs, such as ChatGPT-4, are developing rapidly and have the potential to transform many industries, their utility in professional consulting, particularly in specialized and dynamic fields like MLB, is currently supplementary rather than substitutive. They can offer valuable assistance in the early stages of a consulting project, providing a foundation for further analysis. However, the nuanced insights, specific recommendations, and sophisticated decision-making abilities of human consultants remain irreplaceable at this time.

Recommendations

- Supplementary Role of AI: Organizations like the MLB and the Chicago White Sox should consider leveraging AI and LLMs as supplementary tools rather than replacements for human consultants. ChatGPT-4 and similar models can be used in the early stages of a consulting engagement to generate structured reports and provide generic insights, saving time and resources.
- Data Access: To enhance the value of AI in consulting, organizations could consider providing AI models with access to non-sensitive, real-time data. This would allow for more specific and valuable recommendations.
- Education and Awareness: Organizations should educate their stakeholders about the strengths and limitations of AI in consulting. This will help set realistic expectations and promote informed decision-making.
- Further Research: More research is needed to explore the potential of AI in consulting, particularly in specific fields like sports. Future studies could investigate the use of AI in other areas of sports consulting, such as player performance analytics, fan engagement, and venue management.
- Ethical Considerations: As AI becomes more integrated into consulting and decision-making processes, it is crucial to consider the ethical implications, including data privacy, transparency, and accountability. Organizations should develop guidelines and policies to ensure the responsible use of AI.

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