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AI-SCI

UNLOCK THE FULL POTENTIAL OF AI IN RESEARCH WHILE MINIMIZING POTENTIAL RISKS WITH OUR COMPREHENSIVE SURVEY AND INTERVIEWS ON THE CURRENT STATE OF AI USAGE IN THE SCIENTIFIC COMMUNITY!

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AI-SCI: Assessing the Impact of Artificial Intelligence in <u>Sci</u>entific Research

Exploring the Risks and Opportunities of AI in Scientific Research: A Survey and Interview Study

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I. INTRODUCTION

The use of artificial intelligence (AI) in research has the potential to revolutionize the way we approach and solve complex problems. From automating data analysis to generating new hypotheses, AI tools have the potential to accelerate and enhance scientific discovery significantly. However, there are also potential risks associated with using AI in research, including the potential for biased or unethical results.

II. Aim

ChatGPT and DALL-E are two examples of AI tools that have been developed specifically for research purposes. ChatGPT is a natural language processing tool that can generate human-like text, while DALL-E is a creative AI tool that can generate novel images based on text descriptions. These tools can potentially facilitate and accelerate scientific research significantly, but they also raise important ethical and practical questions.

III. METHOD

To determine the current AI usage in research, we propose surveying researchers across various scientific disciplines. The survey will include questions about the types of AI tools, the motivations for using AI, and AI's perceived risks and benefits in research. We will also conduct interviews with researchers to gain a more in-depth understanding of their experiences and concerns related to the use of AI in research.

IV. RESULT

Based on the results of our survey and interviews, we will be able to determine the status quo of AI usage in research, as well as the level of awareness about the potential risks and ethical considerations. We will use this information to identify best practices for AI's responsible use in research and highlight areas where further research and guidance may be needed.

V. CONCLUSION

The use of AI in research has the potential to accelerate and enhance scientific discovery greatly, but it is essential to consider the potential risks and ethical implications carefully. Our proposed research project aims to determine the current state of AI usage in research and to identify best practices for the responsible use of these tools. Overall, the aim is to ensure that the benefits of AI in research are maximized while minimizing any potential negative impacts.

VI. PROJECT PARTICIPANTS

Domenic Sommer is a health scientist at the Deggendorf Institute of Technology with a passion for exploring new technologies for healthcare. His interest in the intersection of technology and healthcare makes him a valuable member of the AI-SCI project team.

Sebastian Wilhelm is a computer scientist with a strong interest in activity recognition and privacy at the Deggendorf Institute of Technology. His expertise in these areas makes him well-suited to contribute to the AI-SCI project, which aims to assess the impact of artificial intelligence in scientific research.

Prof. Dr. Florian Wahl is a data scientist and professor for AI and context recognition at the Deggendorf Institute of Technology, where he leads the research team "Ambient Intelligence for Context and Activity Recognition" at the Technology Campus Grafenau. His expertise in AI and context recognition, as well as his leadership role in the research team, make him well-suited to lead the AI-SCI project.

