

Text Prediction Using Artificial Intelligence: An Analysis of Two Text Prediction Systems

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Abstract

Natural language Processing is a discipline under artificial intelligence that involves interaction between human language and computer systems. It involves analyzing and representation of natural language, the ability to comprehend both text and spoken words. Natural language processing has evolved to the extent of having the ability to give useful responses to human beings. Large language models have been making landmark advances with new more efficient algorithms and improved hardware and processing power. Models like Google's BERT power predictive text in search predictions. Recently, companies have been training models on billions of parameters, a task that was not feasible just a few short years ago. OpenAI is the market leader in this technology; however, competitors have emerged. This research project aims to investigate perceptions of OpenAI versus an emerging competitor, AI21 on the ability to answer questions and predict text. We developed two web applications that allowed users to key in any questions or text in the textbox, the web application will then answer the user query as a response. The web applications were embedded with Jurassic-1 language model API and the GPT-3 language model APIs. Subjects asked the AI systems questions and rated their perceptions of the results. Furthermore, we investigate perceived privacy of AI systems via a post survey.

Keywords: Artificial Intelligence, Natural Language Processing, Text Prediction.

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