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An Artificial Intelligence model in Intellectual Systems

TREO Talk Paper

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Abstract

In the realm of data science, Artificial Intelligence (AI) is playing a prominent role in amplifying the success rate of the businesses around the world. It is important to understand that the term “AI” could be interpreted in different ways due to the lack of a commonly agreed definition among the researchers and practitioners. Rai et al, 2019 refers AI as “machines performing the cognitive functions typically associated with humans, including perceiving, reasoning, learning interacting, etc.” Examples of AI include natural language processing (NLP), chat bots, robotics, facial recognition, virtual assistants etc. In the context of the current research we focus on the impact of AI in business where infinite possibilities emerge to solve complex business problems.

Increase in the number AI based startups industries are sorting for AI skills to meet the market demand as businesses across the world are adopting AI capabilities and signing up partnerships with the corporations that are offering AI as a service. This laid the foundation for our research idea, in which we propose a design science approach in implementing AI in an intellectual system. Several intellectual systems are used by various businesses to manage inventory, employee data, customer data and other organizational related data. One of intellectual system we are interested in is, Enterprise Resource Planning (ERP) tool. In the recent years, the integration of ERP has been a topic of interest among various research teams investigating the success factors, ease of integration in various fields such as engineering, education, government organizations etc. Our research Idea stems from Wailgum, 2010 research in which he argues over the navigational complexities of the system despite the investment made on the integration of the system. To answer those questions, we would like to propose a Human-AI interface which could suggest various navigational features to the user according to the data collected from specific user. E.g., if an employee/user A tends to seek reports on a weekly basis the AI systems would produce weekly reports for the user A based on his previous browsing data. The implementation of AI-based models in widely used applications such as ERP will improve the productivity of the Enterprises, especially small and medium scale enterprises. Although these enterprises may not have enough funds to implement this kind of advanced technologies it can be incorporated into the application like ERP which is widely used and accepted by these enterprises. Using the proposed design, we study the role of perceptions developed due to the interactivity with the proposed technology. We focus on the Perceived Assistance, Perceived Effectiveness and Perceived Understanding leveraging on Media Naturalness theory and Expectancy Value theory.

References

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