

Term Project - Milestone 2

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Selected Application:

Chat Bot



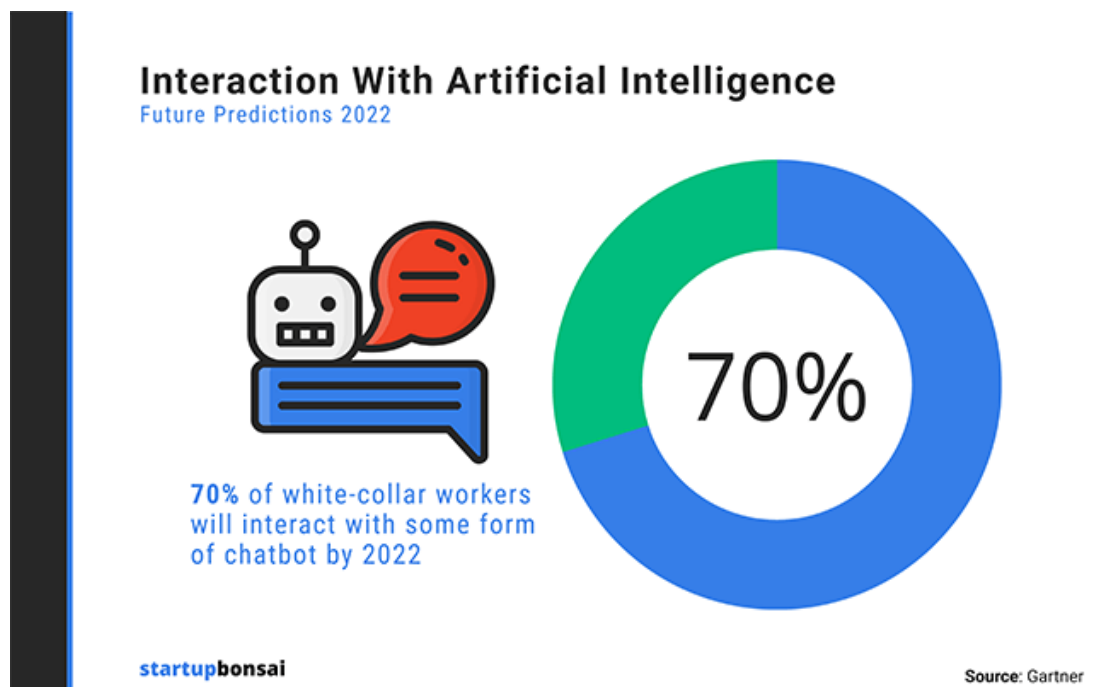
Literature Review:

Introduction:

Chatbots are AI-powered computer programs that are designed to simulate human conversation through text interactions. They have gained significant attention in recent years due to their potential in various applications such as customer service, healthcare, education, and emotional support. In this literature review, we will summarize the key findings from some of the recent studies on chatbots.

Customer Service:

Several studies have explored the use of chatbots in customer service applications. Chatbots can provide a range of benefits such as reducing customer wait times, increasing customer satisfaction, and providing 24/7 support. According to a study by Grand View Research, the global chatbot market size is expected to reach \$1.25 billion by 2025. Another study by Gartner predicts that by 2022, 70% of all customer interactions will involve chatbots. However, some studies have also found that chatbots can lead to customer frustration when they are unable to provide the desired information or assistance. This indicates the need for improvements in the accuracy and effectiveness of chatbots in customer service.



Healthcare:

Chatbots have also been explored in healthcare applications. A study by Accenture found that chatbots could save the US healthcare industry \$3.6 billion annually. Chatbots can provide personalized healthcare support, assist in symptom diagnosis, and remind patients to take medication. They can also improve patient engagement and satisfaction. However, data privacy and security concerns have been raised, as chatbots may collect sensitive health information. It is essential to ensure that chatbots comply with data protection regulations and maintain patient confidentiality.

Education:

Chatbots have also been used in education applications, particularly in language learning. A study by EdSurge found that chatbots can improve language learning outcomes by providing personalized feedback, practicing conversational skills, and engaging students in interactive learning. Chatbots can also reduce the workload of language teachers by providing automated assessment and grading. However, there is a need for further research to explore the potential of chatbots in other areas of education.

Emotional Support:

Chatbots have also been explored in providing emotional support. A study by the University of Southern California found that chatbots can help alleviate symptoms of depression and anxiety by providing a safe and non-judgmental space for users to express their thoughts and feelings. However, concerns about the effectiveness of chatbots in providing emotional support have been raised, as they may lack the empathy and understanding of a human counselor. It is essential to explore the potential of chatbots in conjunction with human counselors to provide effective emotional support.

Conclusion:

Chatbots have the potential to revolutionize various industries, including customer service, healthcare, education, and emotional support. However, challenges still need to be addressed, such as improving the accuracy and effectiveness of chatbots, ensuring data privacy and security, and addressing concerns about the impact of chatbots on employment. Further research is needed to explore the potential of chatbots in these areas and to develop improved chatbot technologies that can provide better support to users.