

Report: Research Questions & Hypotheses

Module: Research Methods

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Introduction:

My research question is on chatbots, they are used to simulate the conversations using technologies like NLP (Natural language processing), AI (Artificial Intelligence) and ML (Machine learning). The chatbots are using in different domains like Medical, Bookings, Shopping, Inquiries, FAQ's, Feedback, support, etc.;

Research Question:

Can a chatbot using deep learning to improve the humans' shopping experience of an online shop and its customer support?

Context:

Chatbots minimize time and improve the efficiency of the human workloads. They are gradually improving and need more data for training. Introducing deep learning algorithm help understand better humans' intentions to generate accurate response.

Population:

Goals are to find a corpus for training and analyzing the chatbot's model to improve results. Building a web interface for interaction with chatbot.

Intervention:

Researching on existing chatbots analyzing the difficulty. Collecting research corpus data questions and answers to train the model. Building the project using Agile Methodology, Will help improve productivity.

Comparison:

The AI (Artificial Intelligence) and ML (Machine Learning) Algorithms has their own limitation and combination of both should improve the efficiency of the algorithm. Comparison between the AI, ML and Deep Learning to see the improved performance.

Outcomes:

The Outcome of the research question should be comparing the both existing chatbots and improved chatbot with deep learning. Analyzing the improved performance and user experience with the chatbot.