

Chatbots for Better Science

Master/Bachelor Thesis

Motivation

Conversational agents built with AI, sometimes called chatbots, have opened a new range of possibilities for research. These bots have been used to help people make reservations, purchase things online, improve mental health, provide access to legal help, and much more. We are particularly interested in how they can be used to help study people. Chatbots can be used to interview people and gather data about public opinion in a scalable way, which could then inform a range of decision making processes regarding public health and policy.

Difficulty

Analysis



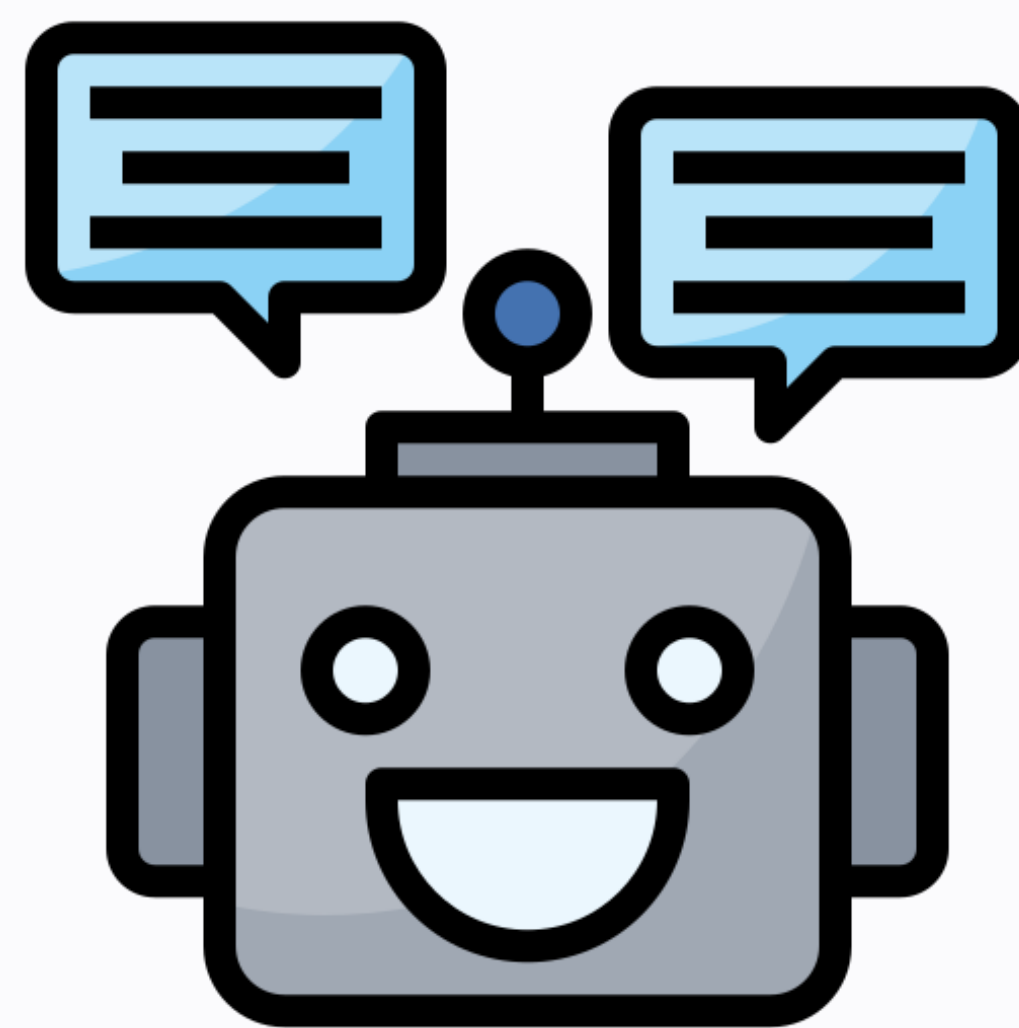
Programming



Literature



Task Description



We will work on building a customizable chatbot that can be set up to facilitate conversations about different subjects of interest. We will work with a bioethicist to construct a chatbot that can most effectively carry out this task. The bot will start with a set of rules and we will explore ways to expand upon it's functionality which may involve the construction of classifiers using machine learning for the purpose of better understanding user values, interests, or questions. The interested student should have some experience with natural language processing and web development.

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References

- [1] Charles Welch, Allison Lahnala, Veronica Perez-Rosas, Siqi Shen, Sarah Seraj, Larry An, Kenneth Resnicow, James Pennebaker, and Rada Mihalcea. Expressive interviewing: A conversational system for coping with COVID-19. In *Proceedings of the 1st Workshop on NLP for COVID-19 (Part 2) at EMNLP 2020*, Online, December 2020. Association for Computational Linguistics.
- [2] J Lomax Boyd and Jeremy Sugarman. Toward responsible public engagement in neuroethics. *AJOB neuroscience*, 13(2):103–106, 2022.

Image from surang at flaticon.com