LITRATURE SURVEY

Abstract:

This paper discloses a virtual conversational method and system to relieve the psychological stress of adolescents. It also aims at providing some positive information through continuous dialogue answers in order to guide adolescents to think and face difficulties with a positive and optimistic attitude and the agenda of reliving the psychological pressure of the adolescents can be achieved. Conventional face-to-face stress detection and relief methods do not work when confronted with those adolescents who are reluctant to express their negative emotions to the people in real life. In this paper, we would like to present an adolescent- oriented intelligent conversational chatting system called "Happy Soul", which acts as a virtual friend who can assist to encourage, understand, comfort, and guide stressful adolescents to pour out their bad and negative feelings, thereby releasing the stress. Chatbots, or conversational interfaces, present a new way for adolescents to interact with computer systems. This chatbot will allow a user to simply ask questions in the same way that they would address a human. The technology at the core of the proposed chatbot is natural language processing ("NLP"), RNN and client server architecture with the help of Android GUI.

1. **Endurance**: A Companion for Dementia Patients

Many people suffering with dementia retain much of their conversational abilities as their illness progresses. However, the shame and frustration that many dementia sufferers experience often make routine, everyday talks with even close family members challenging. That's why Russian technology company Endurance developed its companion chat bot. Many people with Alzheimer's disease struggle with short-term memory loss. As such, the chat bot aims to identify deviations in conversational branches that may indicate a problem with immediate recollection – quite an ambitious technical challenge for an NLP-based system. In addition, since the chat bot is a cloud- based solution, physicians and family members can review communication logs taken from the bot to identify potential degradation of memory function and communicative obstacles that could signify deterioration of the patient's condition. Interestingly, the as-yet unnamed conversational agent is currently an open- source project, meaning that anyone can contribute to the development of the bot's codebase. The project is still in its earlier stages, but has great potential to help scientists, researchers, and care teams better understand how Alzheimer's disease affects the brain. A Russian version of the bot is already available, and an English version is expected at some point this year.

2. **UNICEF**: Helping Marginalized Communities Be Heard

So far, with the exception of Endurance's dementia companion bot, the chatbots we've looked at have mostly been little more than cool novelties. International child advocacy non-profit UNICEF, however, is using chatbots to help people living in developing nations speak out about the most urgent needs in their communities. The bot, called U-Report, focuses on large-scale data gathering via polls – this isn't a bot for the talkative. U-Report regularly sends out prepared polls on a range of urgent social issues, and users (known as "U-Reporters") can respond with their input. UNICEF then uses this feedback as the basis for potential policy recommendations. In one particularly striking example of how this rather limited bot has made a major impact, U-Report sent a poll to users in Liberia about whether teachers were coercing students into sex in exchange for better grades. Approximately 86% of the 13,000 Liberian children U-Report polled responded that their teachers were engaged in this despicable practice, which resulted in a collaborative project between UNICEF and Liberia's Minister of Education to put an end to it.

3. **ALICE**: The Bot That Launched a Thousand... Other Bots

No list of innovative Chatbots would be complete without mentioning ALICE, one of the very first bots to go online – and one that's held up incredibly well despite being developed and launched more than 20 years ago. ALICE – which stands for Artificial Linguistic Internet Computer Entity, acronym that could have been lifted straight out of an episode of The X-Files – was developed and launched by creator Dr Richard Wallace way back in the dark days of the early Internet in 1995. (As you can see in the image above, the website aesthetic remains virtually unchanged since that time, a powerful reminder of how far web design has come.)Despite the fact that ALICE relies on such an old codebase, the bot offers users a remarkably accurate conversational experience. Of course, no bot is perfect, especially one that's old enough to legally drink in the U.S. if only it had a physical form. ALICE, like many contemporary bots, struggles with the nuances of some questions and returns a mixture of inadvertently postmodern answers and statements that suggest ALICE has greater self-awareness for which we might give the agent credit. For all its drawbacks, none of today's chatbots would have been possible without the ground-breaking work of Dr Wallace. Also, Wallace's bot served as the inspiration for the companion operating system in Spike Jonze's 2013 science- fiction romance movie, Her.

4. **Med What**: Making Medical Diagnoses Faster

If you're the kind of person who has WebMD bookmarked, it might be worth checking out Med What. This chat bot aims to make medical diagnoses faster, easier, and more transparent for both patients and physicians – think of it like an intelligent version of WebMD that you can talk to. MedWhat is powered by a sophisticated machine learning system that offers increasingly accurate responses to user questions based on behaviours

that it "learns" by interacting with human beings. In addition to the ever-growing range of medical questions fielded by MedWhat, the bot also draws upon vast volumes of medical research and peer-reviewed scientific papers to expand upon its already considerable wealth of medical expertise. In many ways, MedWhat is much closer to a virtual assistant (like Google Now) rather than a conversational agent. It also represents an exciting field of chat bot development that pairs intelligent NLP systems with machine learning technology to offer users an accurate and responsive experience.

CONCLUSION:

Chatbots have been on the rise since a couple of years and have already faced a wide adoption. They are bringing a new way for businesses to communicate with the world and most importantly with their customers and with the rise of emerging technologies and Artificial Intelligence (AI). Proving their usability in the field of customer support, the chatbots can also be extended to help users mentally like a companion. Our chatbot, Happy Soul, is one such approach. It helps the adolescent users to talk freely about their mental conditions without being hesitant about it. It proves to be a great help towards society as mental health is a topic of grave concern especially in the youngsters. The future scope of this project would involve analysing the different kinds of emotional disturbances faced by the teenagers and their causes. This would help to evolve happier generations. The concept of RNN can be used for implementation of a conversational chat bot.