Title: How chatbots are unwittingly influencing our lives

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Person A ordered a gorgeous-looking dress for her date this week. However, to her dismay, she found out that the size was too small for her. Now, she needs a refund. When she clicks the banner ‘refund’, the chatbot asks what item she wants to refund. She responds pink dress. The chatbot then asks what kind of payment method PersonA used. She responds credit card. Without delay, Person A easily registered her refund at home. Meanwhile, Person B is planning a nice trip this month. He wants to find a nice place to sleep and clicks on a hotel reservation site. By talking with the chatbot, he finds information about hotels and how to reserve his hotel of choice. In the past, these services were all done by people, but these days chatbot is working in diverse areas to make our lives convenient and fun.

What is a **chatbot**? According to Oracle, a chatbot is a computer program that simulates and handles the conversation between humans either in person or in voice. Chatbots can be simple as the most basic computer program, giving a single type of response solely depending on a fixed rule. On the other hand, it can be complicated. Based on the training of numerous data, a chatbot can work as a digital assistant responding approximately like artificial intelligence. In the year 1950, Alan Turing commented that when we can’t distinguish whether we are texting with a person or machine, the machine can be defined as ‘intelligent’. Starting from this idea, in 1966, the first well-known chatbot ‘ELIZA’ was invented by an American MIT AI lab. ELIZA is a chatbot that imitates psychotherapists. It was a huge boom at that time, but was only able to print a slightly different response from the user’s prompt and to print an answer when a specific word was entered. Then 2011, Apple’s Siri showed a new possibility. People were shocked by Siri’s voice recognition technology and its ability to understand the users’ context. Starting from Siri, large IT companies invented smart secretary chatbots. People began to believe that chatbots will substitute customer service and its activities and expected that chatbots will provide experiences as if having a conversation with a person. However, back then, chatbots were unable to even decipher what the user said. From about 2019, chatbots developed in the area of looking like a person and the capability to have more sophisticated conversations. Through machine learning, chatbots developed enough to work as an interface that interacts with humans.

Chatbot itself provides various functions but when grafted with AI technology, several more functions are available. Firstly, conversations can be much more frequent and natural. AI models are trained to respond naturally based on a large database. Nowadays, by remembering the content of the conversation, AI chatbots are even capable of having continuous conversations. Additionally, it can cope with clients rapidly. AI chatbots have the ability to solve problems according to the situation. If the AI chatbot is trained to correspond to the given data, it can find the solutions to the demands of the client faster than a person would have. The main technology used in AI chatbots is NLP technology. NLP technology is a technology used in diverse areas such as voice recognition, language translation, emotional analysis, and text classification. The process of NLP algorithm can be divided into two parts. They are the process of NLP algorithm and deducing natural language: The former is called natural language comprehension and the process of deducing natural language is called natural language generation. So, when a person inputs human language, the computer understands and analyzes this data and figures out the optimal solution. NLP algorithm communicates with humans by repeating this process.

Due to their convenience, chatbots are nowadays used in lots of areas and give us positive effects on our society. In the organization South Australian Health, the chatbot is working as a Covid-19 virtual agent. The chatbot ‘Zoe’ answers various questions related to Covid-19 and helps the user to find necessary information through the conversation. AI chatbots are used for healthy purposes as well; Lifeline Australia invented a Twitter DM chatbot to help enhance the health of clients. It helps clients find resources on Lifeline and helps people easily contact with a caregiver. Although some people still have suspicions about chatbots and want people to work in these areas, it is also true that these chatbots enhance the quality of life, especially in the areas of customer service.

Chatbots were once considered as simple computer programs, giving obvious answers according to what the user replied. Nowadays, chatbots are now functioning much more than simple programs and serve as real assistants. As much as data and technology are advancing, expectations are high as to whether chatbots could develop to a human level.