Natural language recognition is used to recognise what a person says and translate it into something a computer can understand. These systems typically use complex artificial intelligence (A.I.) to determine the meaning of a sentence. The reason artificial intelligence is used is explained well through the example given by Seif (2018). “Steph Curry was on fire last nice. He totally destroyed the other team” how a person and a computer may interpret that statement may be very different. While we as people may understand that the player Steph played very well and probably won against the other team. A computer may take this quite literally and think that Steph was burning and, whilst burning, he destroyed the other team so that they no longer exist. This is the issue that natural language processing aims to fix.

Currently language processing is available in many products, the most common being a smartphone’s assistant. These work in tandem with voice recognition software and typically wait passively in the background for a keyword to be said before a request or question can be asked of the assistant. The A.I. will then attempt to carry out the users request and give them a result. Chatbots are a text-based machines that attempt to have conversations with people and have been around since the 1960’s. Some call centres are replacing people with these systems for basic calls, for example reporting income through Centrelink, saving money on wages in the process.

Last year in 2018 Google unveiled ‘Duplex’ which can call businesses and make appointments on behalf of a user. What made this demonstration impressive the ability of the A.I. to understand contextual information and ask questions about whether the restaurant would be busy around the booking time, although it did seem to have some trouble in this example. Or if the desired time was not available it would ask what other time an appointment might be able to be made. As evidenced by this presentation this technology is already quite advanced. The future of these systems is further refinement of it’s understanding of people’s speech in given contexts, leading to more human like speech that is indistinguishable from another person.

The earliest systems of natural language processing come in the form of chatbots, one of the earliest of which was called ELIZA. ELIZA worked on the premise that it recognised certain words or phrases from the sentence that was given and responded with a pre-set sentence (Weizenbaum, 1966). These were slowly improved over time and began incorporating learning algorithms, one of the most notable being Jabberwakky beginning in the late 1980s then being superseded by Cleverbot in 2006 (Cleverbot 2019). Large tech companies now have quite a large interest in this technology due to it’s power in delivering effective advertising to users.

Language recognition has been implemented in many areas of our current lives. Each of the major tech companies; Google, Apple, Facebook, Amazon, Samsung and Microsoft (Google assistant, Siri, M, Alexa, Bixby and Cortana respectively), have each created language recognition systems that interact with their platforms. One of the main purposes behind these systems is to deliver more targeted and effective advertising to consumers by knowing more about what that individual wants.

Google and Amazon have begun integrating these systems more into peoples lives with the advent of smart homes. Google home and Amazon Echo are devices that can control elements of a person’s home with just voice commands, from dimming house lights, to making calls to being able to order products online. It is hard to see these products not being integrated into modern homes more often.

Centrelink and the banking sector are two areas that have implemented natural language processing in their call centres to handle the simpler tasks. This removes potential jobs for people as these calls may make up a considerable volume of the call centres traffic. For the people remaining in these positions it may be a good thing as they have to deal with more serious issues from customers and receive a greater compensation for this. Secretaries and Personal assistants’ jobs may be of concern in the future with Google’s assistant making progress. This software is currently able to make appointments, set reminders and help organise a person’s day. With future improvements it may be able to take calls for businesses from people to set appointments, doctor clinics are an example that come to mind.

Currently I try to avoid using the voice functionality of my device and still prefer to type my queries into search engines. I also use an adblocker when online so that I get less disruptions while browsing. It was slightly worrying to discover that the few searches I did do through google assistant had all been recorded. Even snippets from conversations had been captured when someone had said ok in the background. If the reader wants to see their history, they can go to this link: <https://myactivity.google.com/myactivity?product=29>.

I don’t think this technology will have any negative effects on the people I know directly or immediately. I can see receptionist like jobs in the future becoming unavailable as they are replaced in part or wholly by this. Some of my friends have expressed their interest in the smart home devices and I could maybe see myself integrating one if I built a house and the convenience was worth the possibly reduced privacy.

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