In simple, a chat bot is a service powered by rules and sometimes artificial intelligence that you interact with via chat interface. (Schlicht, 2018) It is a computer program that simulates a natural human conversation. However, not all chat bots are the same across the board. It can be said that are three main types of chat bots that are used within our world.

The first being chat bots that are focused on the rules that they are given by someone. (BotsCrew, 2020) When it comes to these bots, they will follow a path based on the choices that they are told to give and the response that you give them. At this time, you are not able to freely input your thoughts, but you are given options after options that will hopefully lead you to a solution at the time. Moving on to the second type of robots, it involves intellectually independent chat bots. (BotsCrew, 2020) Instead of the first chat bot that I mentioned where there were few options, this chat bot does allow user input and will use certain key words in the user’s input to decide on how to answer. For this chat bot, it will use machine learning to be trained to understand the appropriate path for the user. The third type of chat bot is an AI powered chat bot. (BotsCrew, 2020) For these chat bots, they combine aspects from the rule based chat bot and the machine learning chat bots. Like most conversations with people, the dialogue will typically not follow a certain structure every single time and will have interruptions between whoever may be talking at the time. Hence, for these chat bots, they will remember certain aspects of the conversation in case of a random question allowing them for them to go back and forth with different conversations with the same person. In order to do this, they will utilize machine learning, artificial intelligence, as well as Natural Language Processing to truly understand what someone is saying and give the appropriate response.

Now, how do the chat bots operate when it comes to the natural language processing? In order for the chat bot to give a response, it will split the question into an intent and an entity. The intent will be what is requested from the user while the entity will be details that surround the intent.

Even though chat bots are becoming more apparent all around us whenever we visit sites, they will also have some limitations and disadvantages as a software. One of them being that they are not always going to be correct in determining the appropriate response. (Gomez, 2018) At times, they will be unable to query certain information because they were not given a predetermined path or it was not taught about a certain subject. Hence, this can lead to customers becoming frustrated and the company losing a sale. Another limitation of the chat bots are that they can be an expensive investment for certain companies. (Gomez, 2018) Each chat bot is different in that it had to be tailored to the company that it is being applied too at the time. In the end, there is not chat bot that is a catch all for each company or site to use for its interactions.

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