Out of the four lessons, I learned the most in Professor Visser's lecture, which introduced Artificial Intelligence. I've never really learned or thought about artificial intelligence in the past, so I thoroughly enjoyed this unit. Considering I knew basically nothing about artificial intelligence, I also didn't know how many areas and branches there are in the field. I've realized that artificial intelligence very well may transform our global economy, and there are so many jobs and opportunities in this expertise.

At first, I couldn't understand what artificial intelligence truly was because so many definitions were provided. However, the simplest definition that Professor Visser left was "the study of computations that make it possible to perceive, reason, and act." The definition of artificial intelligence made even more sense when it was broken down even further into "systems that act like humans, systems that think like humans, systems that think rationally, and systems that act rationally."

Next, Professor Visser spoke about how humans think and act and how that relates to Artificial Intelligence. There are three ways to understand how humans think, the first being introspection, which is examining one's own mental and emotional processes. The next way to understand how humans think is through psychological experiments, which are very common. Lastly, we can see how humans think through brain imaging, of course. We can see what happens to different areas of the brain while performing different tasks. Next, he spoke about how we can understand how computers can act like humans. He spoke about the Turing Test (which we learned about in Unit One) and what we can learn about computers.

After Professor Visser provided us with a basis for understanding Artificial Intelligence, we talked about intelligent agents. In artificial intelligence, an intelligent

agent perceives their environment through sensors and acts upon the said environment through effectors. An ideal rational agent is capable of completing expected actions. The rationality of agents is dependent on performance measures, the agent's prior knowledge about the particular environment, the actions that the agent is capable of carrying out, and the agent's percept sequence until now.

There are four basic agent programs: simple reflex agents, goal-based agents, model-based reflex agents, and utility-based agents. Simple reflex agents choose actions solely based on the current percept and have completely observable environments. Model-based reflex agents maintain internal states and use a model of the world to choose their actions. Goal-based agents choose actions to achieve goals and are more flexible than reflex agents. Lastly, utility-based agents choose their actions based on a preference, otherwise known as a utility for each state.

Artificial intelligence aims to emulate the human brain, which all ties back to cognitive science. Artificial intelligence can relate to cognitive science's psychological aspects because AI aims to give computers the ability to learn, problem-solve, perceive their environments, make decisions, and produce speech and language. Eventually, there will be robots that can recognize emotions, which will help many people. For example, robots will become companions for those with Alzheimer's disease.