Artificial intelligence is currently a field of very highly interest, and its applications into robots and other technology are what will power the future. Just like humans have languages that we understand things in, so do computers. Through code we can create things that bridge the world of real and digital, where we simplify and create digital solutions for real life problems. Some things are getting hard to differentiate between real and digital, especially in the virtual world like VFX. There are also attempts to make human like artificial intelligence, or ones that can complete human tasks. I am interested in this because some of the artificial intelligence robots that can do human tasks are becoming available to the public, and are going to start to become a part of everyday life.

On September 24th of this year, Boston Dynamics who is one of the world’s leading robot innovators announced that they would make their ‘Spot’ robot available for companies to apply and get one. Spot is a robot that will go where you tell it to, as well as avoid obstacles to get to its destination. Spot is also able to carry large loads on its back, and can be fitted with an arm, gas detectors, as well as many other things to fulfill tasks. Spot can work in any conditions and in any terrain as well. Despite all of all these capabilities that Spot has, Boston Dynamics has said that they are not interested in having Spot used as a weapon, and is refusing to sell it for any use that could make it weaponized. Despite Boston Dynamics military origins, they are
focused on using Spot to propel Robot task completion further into the future. This is a firm stance that they are taking, however they are still willing to sell it to police departments for disposing of hazardous materials like bombs or chemicals that humans would be unable to, just like some current and simpler police robots do. They are also looking for businesses to come up with creative ways to use Spot for transportation or organization, especially in warehouses.

One of the current downsides to Spot is its ability to interact with humans. Currently, these robots do not have a system to avoid humans perfectly, so operating Spots in human environments can be risky. This is why Spot is generally programmed to fulfill its task individually and is not to be used in a human environment. While Spot is still a great leap forward in robotics and its ability to do human tasks, its inability for human interaction currently limits its usefulness. While Spot does have some feature like its ability to do a dance, it is mainly a work focused isolated machine. This is the beginning of a long process of robot executed jobs, and innovation in the field of human-robot interaction.

The topic of robotics and more specifically AI’s interaction with humans has always been of great interest to me. One of the most surface levels of human-robot interaction is where the robot is implemented into an already existing machine or tool. An example of this is where my interest stems in this topic, which is self-driving cars. While the ‘body’ of the robot is merely the car, it is still a development of artificial intelligence interacting with the human world and doing a task that has been long done by humans. I am a huge car enthusiast and have been following the journey of companies who have been trying to do this for a long time. Some of the first success in self driving was achieved over 10 years ago by google, and at the time I was in elementary school. During that year I did at least 3 projects that I can remember on self-
driving cars. In the present day, I follow Tesla very closely, who has been the leader in successful self-driving. Tesla has had their Autopilot feature out for a couple of years where the car will essentially drive itself with little human oversight needed. Tesla even recently rolled out a feature where your car can drive up to you in a parking lot without you having to go find your car, completely human free. This ability to see the growth and beginnings of a huge technological advancement is why I am so interested in the Spot robot, who seems to be the beginning of a worker robot, much like the first iterations of Tesla’s Autopilot coming to the public.

In the lecture we talked about “uncanny valley, which is where the likeness of a robot to humans can be creepy” (Onesti). With a robot-like Spot, there is not as much worry about the backlash of some creepy human-like robot taking our jobs. The development of these robots is very interesting to me, because it seems that they very strategically made them less human-like, especially compared to other Boston Dynamics robots. This side of AI compared to other current divide between real and digital is trying to be closed more than separated, especially in terms of VR, AR, and things like CGI. Since these things are fake, people want them to be as close to reality as possible, and we have generally been able to achieve that. However, with real life robots we are not even close to getting out of Uncanny valley, so taking an approach like Boston Dynamics Spot has will be a great way to ease robots into our society. Even though Spot was designed with efficiency in mind, it’s dog-like features are enough for it to be familiar enough yet not creepy.

Eventually, if robots like Spot do start taking some of our jobs that they can do more efficiently, this will create more jobs in programming and creating AI that will improve the
robots. This affects me going into a computer science field because it will not only create a lot of growth for the need for computer related workers, but it will accelerate the amount of innovation happening, which in turn creates more exciting abilities for these robots and tasks to code. This is also exciting as someone who wants to go into an AI field, because Spot “simply wasn’t designed to interact with humans” (Brandom). This is mainly because of the hazard that it can cause to people around it. This is disappointing now but is something that will be interesting to see developed and innovated into the future, maybe even as part of the team one day who creates the AI for it.

There are some fun things Spot can do such as a dance to ‘Uptown Funk’ and potential to be part of a Cirque de Solei show is being worked on currently. Other robots like Boston Dynamics ‘Atlas’ are further ahead and are more specifically made to be “a research platform designed to push the limits of whole body mobility.” (Boston Dynamics). This is very important when applied to their first public concept which is Spot, because when the two can be combined eventually their ability to interact with humans and be a part of our lives will be inevitable. This can even create a new sort of robot entertainment industry, such as robotic sports, or give them more abilities than we ever thought possible. Robotics like this are what will bridge the gap between current digital prototypes of AI and real-life application.

I believe what we are seeing here with Boston Dynamics release of Spot is the beginning of introducing robots into our everyday lives and work. As further innovations get made in AI, there will be more of an impact of robots that are out in the world. This is a potential job for me in the future, and I would like to be part of a team who is developing something that has never been done before. As robots like Spot are able to carry out more tasks and can start
interacting with humans, there can start to be a real overlap between what is real and what is digitally done.
References


Onesti, Nina “I-101 Real and Digital” Lecture