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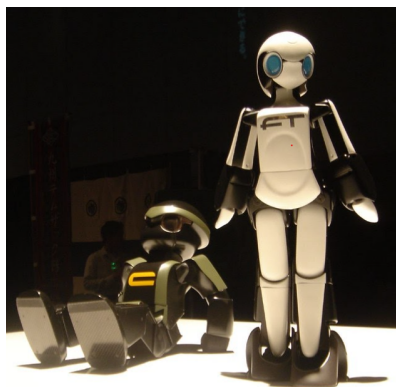
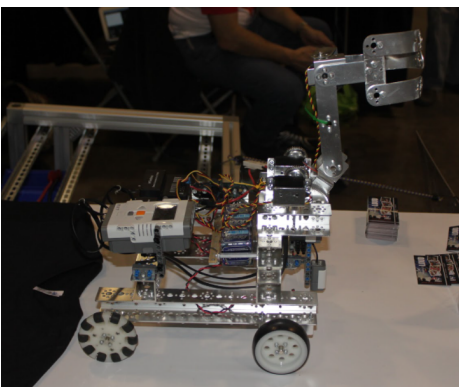
Robota Psyche

Final Paper

Nonhumanoid and Humanoid Robots: How Does Form Dictate Trust

In media these days, robots are usually portrayed in a negative light. Whether they have aspirations of world domination or are seen as just servants to mankind, most portrayals instill a sense of fear, distrust, and apprehension in the audience. In doing so, content creators- whether authors, videographers, or any other producer- dooms the future of robotics. As people consume more and more negative media about robots, the more fearful they will be when robots inevitably become a part of daily life- working in grocery stores, police stations, factories, and eventually in the home. The question then becomes how might robot developers their technologies in a more nonthreatening way? Is that their job? Or should content creators take on the role of desensitizing the population to the idea of robots?

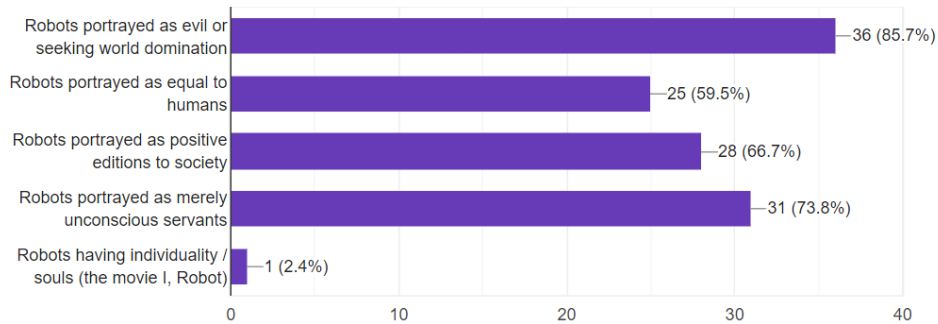
I conducted a survey from NYUAD students as well as students in the United States in order to see how their perception of robots may be swayed by their media consumption. In the survey, I added questions about what previous knowledge they had about robotics and how the media they consumed portrayed robots. In addition to these questions, I also showed three different robots, one non-humanoid, one mostly humanoid, and one humanoid. Their images are below:



The results from this survey matched the idea that media is corrupting the public's view of robots. For example, in 42 responses, the majority of people had seen media portraying robots

What kind of media regarding robots have you consumed?

42 responses



as evil. A lot fewer people reported media with positive depictions of robots or as equal to humans. A major distinction that should be made is that many of the robots that are portrayed

negatively, are humanoid, meaning they bear a resemblance to humans as bipeds with the general characteristics of a human. If the robot can emit noise, developers might be inclined to add a decorative mouth, even if it serves no purpose or the speaker is in an entirely different location.

This human-like appearance can be a benefit or a drawback. With Sophia, the humanoid robot that strives for realism, only 12 participants in the survey stated that they were not afraid of this robot. In contrast, over 30 people were not afraid of the nonrealistic humanoid and non-humanoid robots. The public's distrust of realistic humanoid robots might be due to robots being perceived as a threat. Humans innately understand other humans to a certain extent, so to have a robot like Sophia who *looks* like a human but isn't one can be uncomfortable. People want to think they can understand her or treat her like a human, but they know that's not realistic. Instead of taking the time to process their differences, people instead turn their emotions into fear of the unknown and distrust of anything that looks like them, but doesn't act like a human.

This distrust carries not only to being afraid of robots, but also to how reliant they seem to be. The majority of people that completed the survey trusted the non-humanoid robot to

complete its given task, while much fewer believed the two humanoid robots had the same reliability. I also account this to media portrayal. In the movies, TV shows, and books that include robot uprisings, most of the evil robots are humanoid. The robots we see that are productive or benevolent are the non-humanoid robots that are often perceived more as machines that focus on their task. These robots are perceived as less of a threat to the public because there is no expectation of understanding. Most people will accept that part of this robot will always be foreign to them, which doesn't always happen with humanoid robots.

On the other hand, more people were willing to have a conversation with the humanoid robots, while very few would do the same with the non-humanoid. This leads me to believe that development of robots should be specialized based on the task they are given. If they have a high emotional intelligence with a purpose to interact with humans, they should be humanoid, but if their focus is on physical intelligence, such as working in a factory, there is no need for them to be humanoid. When developing robots, it is important that humanoid is not the default design, but rather the developers think critically about the purpose of the robot and who it will interact with in order to make the best decision on its form.

An MIT researcher, Kate Darling, believes that modeling robots off of humans is limiting the industry. She describes that by making robots humanoid is not thinking critically about precisely how robots can aid us. Her declaration is that we should, instead, be modeling robots off of animals. Since animals were originally domesticated to serve humans- as plows, companions, hunters- it makes sense for robots to be modeled off of the same animals. That way, they maximize their usefulness and work as partners with humans, rather than competitors. She concludes by repeating the overdevelopment of humanoid robots, saying that these developments

are limiting and that, “what’s often disappointing is when things that look like you don’t quite behave the way you expect.”¹

In conclusion, the idea that robots should be built in the approximation of humans is a flawed logic that limits the industry. In fact, doing so might leave the general population feeling scared or nervous around robots. Animals, on the other hand, are already specialized for our use and humans feel comfortable around them, for the most part. Because of this, it may be wise to refocus the development of robots, not as human based, but animal based. Of course every robot will have special requirements based on its given task, level of emotional intelligence, and level of physical intelligence.

Bibliography

AI ethicist Kate Darling: ‘Robots can be our partners.’ (2021, April 17). The Guardian.

<http://www.theguardian.com/technology/2021/apr/17/ai-ethicist-kate-darling-robots-can-be-our-partners>

¹ *AI ethicist Kate Darling: ‘Robots can be our partners.’* (2021, April 17). The Guardian.