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Reading 2: Designing Human-Robot Relationships

Nowadays, robots are being seen in different work environments because they are able to interact with workers of various degrees of knowledge. They have begun to work alongside humans in harmony. Robots are being used in hospitals to replace doctors who can't be there physical but still take care of their patience remotely through robots[1]. How can one human feel comfortable in having a relationship with a non human being but a robot instead?

People have the fear that robots will start taking over the world or gain more knowledge than humans. But if robots are properly coded and maintained correctly, we gain a new experience with them. MIT students are working with Boston's Children's Hospital on robot-enabled social experiments[2]. Studies show that patients might become uncomfortable with the idea of having a robot taking care of them. But it is soon showed that they are much more comfortable speaking with the robots instead of nurses or doctors. Robots were able to show more interest, patience and understanding than time-pressured staff can demonstrate. They did not show any signs of tiredness, didn't get distracted or interrupted. Having robots in hospitals show that it helps patience open up more with their problems to them because they are being taken care of and communication between and another is going smoothly without any problems. This increases patient satisfaction and recovery improvement.

When designing the robots, it must not have concrete tasks and not learn new forms of tasks. For robots to become increasingly integrated into a workforce with humans, they need to establish designer ground rules. They need to have human interaction to uphold their approach with the humans to create a relationship and provide adequate cooperation effortlessly. In this case, clever programming sets interaction type and frequency to balance privacy and therapy needs for you.[3] Robots must learn to be aware of their surroundings to improve their human interaction; observing human gestures, sounds, and other sensor signals. The more they learn human gestures, the more they'll be incorporating human-like

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[1] Designing Human-Robot Relationship, page 347
[2] Designing Human-Robot Relationship, page 355
[3] Designing Human-Robot Relationship, page 357

gestures when speaking with the patients. This brings positive relationship between the two and allows easy work flow for the nurses and doctors at the hospital. Interaction between a robot and a human is key for the designers when creating the robots.

Robots are the future but if we want to distribute the future more evenly and effectively, interdisciplinary understanding and skill sets must be built. Which means, the design of robots will require even greater collaboration among many more human other than the ones at the hospital.

References

Scott Stropkay and Bill Hartman. "Designing Human-Robot Relationships." *page 347*.

Scott Stropkay and Bill Hartman. "Designing Human-Robot Relationships." *page 355*.

Scott Stropkay and Bill Hartman. "Designing Human-Robot Relationships." *page 357*.