Robotics, AI, and Humanoids: Too Human, Too Machine, or Even Necessary?

Literature Review

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The advancements in the field of robotics, artificial intelligence (AI), humanoids, and technology are continuously present. This literature review will explore positive and negative connotations within this area of healthcare. Some ethical questions in the balance include cost savings and safety improvement (Guan, 2019). One of the most crucial and challenging aspects of moving forward is simply the human acceptance of new technologies and their capabilities to be both somewhat human and somewhat machine (Hashim & Yussof, 2017).

Health Care Robotics: Qualitative Exploration of Key Challenges and Future Directions

This article by Cresswell et al. (2018) looks at the challenges facing the future of robotics and humanoids in healthcare. Cresswell et al. (2018) intend to determine what problems exist and the importance of overcoming these barriers. The most critical challenge to address in moving forward with robotics and humanoid technology is to gain the trust of both patients and providers. The main inference is that many people still struggle with putting trust into machines.

Key Points

Locsin & Ito (2018) explain humanoids as robots who look and speak like humans, and robotics are more tools that look like machines and accomplish specific tasks. Some jobs that could be completed by humanoids include triaging and drawing labs (Locsin & Ito, 2018).

The article Cresswell et al. (2018) includes an essential concept that if a humanoid robot looks too much like a human, people expect it to act like a human. Patients might expect a humanoid to understand them on an emotional level or read into what they are saying. If a robot

that looks like a human cannot use critical thinking to read between the lines, patients may be disappointed. Another key concept is that if a robot looks too much like a machine, it appears cold and may make a patient's healthcare experience more challenging.

Assumptions

Patients worry that robots have the potential to harm them, as seen in popular science fiction. A lack of exposure to robots in human roles reinforces this fear. Healthcare providers worry that robots will hurt their pay or job availability. If a robot can perform a healthcare procedure with fewer mistakes, at a more affordable price, providers' jobs are at risk.

Cresswell et al. (2018) imply that if we address these challenges, robotics can continue to grow and improve healthcare outcomes for both patients and providers. Improvements include lowering healthcare costs for patients, improving safety, and easing time restraints on support staff. If barriers like trust hinder these advancements in technology, the status quo will continue in healthcare, and progress will be limited.

Conclusion

In conclusion, acceptance by patients and staff to the ever-changing technology in medicine is necessary. Robotics and humanoids can improve costs and outcomes for many areas of healthcare (Cresswell, 2018).

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