AI in Humanoid Robots
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What is a Humanoid Robot?

Humanoid robots are complex machines made to resemble and or function like human beings. Although people have been interested in "robots" for hundreds of years, recent developments in technology and artificial intelligence have made humanoid robots much more advanced. Humanoid robots use complex sensors and motors to detect and relate with the world around them. They make decisions and react or respond based on the data from their sensors.#

What were some earlier developments in Humanoid AI?

The concepts of artificial intelligence and robots have been around long before we have had the ability to create computers capable of thinking for themselves. Leonardo Davinci designed and possibly created an automaton in the late 1500s. In 1921, the term "robot" was first used by Czech author Karel Capek. One of the earliest references to AI was in a lecture by Alan Turing in 1947 where he talked about "machines that can learn from experience." [1] Turing devised a simple test for AI in 1950 known as the "Turing Test." It wasn't until 60 years later that a chatbot named "Eugene Goostman" passed the Turing Test.[2] The term "Artificial Intelligence" was first used by Stanford professor John McCarthy in 1950. John McCarthy is known as the "Father of AI." [3] The first successful AI program was written in 1951 at the University of Oxford. This program could play checkers. Soon after, other programs that could play checkers were created in the United States. Developments in artificial intelligence continued in the following decades and by the 1990s, IBM created the first "virtual assistant", Simon.[4] In 1997, IBM's computer "Deep Blue" beat world chess champion Garry Kasparov.

What are some benefits of Humanoid AI?

- Service Industries: airports, bank information center, restaurants, schools
- Medicine: Synthetic organs implantable in humans
- Disaster assistance: rescue operations, warehouse, outdoors service, area inspection.
- Space exploration: Mars
- Companionship: Assist elderly and disabled people
- Industrial Use: manufacturing tasks, work alongside humans
- Military Use: Army, Air Force.

What are some disadvantages and concerns?*

- AI costs a lot of money to create. Is it worth the cost?
- Robots can replace people in certain jobs. What will these people do? Where does the wealth created by machines go?
- There may be unintended consequences. What if machines make mistakes that have disastrous effects?
- Machines do not have emotions. How will they interact with people?
- Is it possible for machines to be more intelligent than humans?
- Should robots have rights? As machines become smarter, how will we treat them?

Footnotes:
#https://www.forbes.com/sites/cognitiveworld/2019/02/25/artificial-intelligence-in-humanoid-robots/?sh=780788524c72
1 https://www.britannica.com/technology/artificial-intelligence/Alan-Turing-and-the-beginning-of-AI
2 https://time.com/2847900/eugene-goostman-turing-test/
3 http://jmc.stanford.edu/index.html
4 https://www.businessinsider.com/worlds-first-smartphone-simon-launched-before-iphone-2015-6
* https://www.weforum.org/agenda/2016/10/top-10-ethical-issues-in-artificial-intelligence/