ROBOTS

<http://www.canadaqbank.com/blog/2018/09/28/robots-training-doctors-students/>

<https://blog.marketresearch.com/military-robots-play-a-pivotal-role-as-a-tactical-and-operational-tool-for-armed-forces>

<https://mars.nasa.gov/msl/home/>

https://www.youtube.com/watch?v=CDsNZJTWw0w

What does it do? (600 words) What is the state of the art of this new technology? What can be done now? What is likely to be able to do be done soon (say in the next 3 years)? What technological or other developments make this possible?

Robotics covers a wide range of implementation from autonomous vehicles, to personal assistants, to chefs, wait staff, cashiers, and the huge development spike in bionics. Robotics we commonly see today are autonomous vacuum cleaners or personal assistants (such as Amazon Alexa or the Google nest series,) these robots are known as consumer robots. However, robots that are used in industrial scale projects are becoming more and more advanced, but costly.

In recent years we have seen robots being developed for use in:

* Medical training, simulating various conditions and communicating symptoms to help medical students to practice diagnosis and treatment on various conditions.
* Research, robots are being developed to assist in research both in a university setting but also corporate laboratories and also, at a larger scale, space exploration. Mars is home to a robot who assists in researching the conditions, atmosphere and weather anomalies on Mars.
* Military and Security, robots can assist in military deployment to scout ahead for mines, search and rescue missions, support in combat and I.S.R (Intelligence, Surveillance and Reconnaissance)
* Prosthetics, perhaps the most promising development in robotics is the improvements in prosthetic and robotic limbs. Bionics, as they are commonly known, are being developed to assist in those who are missing limbs or are paralysed. New technology is being developed to allow for these bionics to mimic biological muscular contraction and relaxation, skin tightening and loosening, and joint movements. These innovations allow the wearers to run, jump, dance, and move exactly as they would with biological limbs.

These developments in robotics are made possible through the research and testing done in robotic centres all over the world, and can be attributed to the boom in technological advancement that we have seen over the last 10-15 years. Processing power is getting faster and more affordable as computing equipment is upgraded and updated, and with these advancements we are able to implement new technologies and new techniques into developing robotics.

Right now, robots are definitely costly. The most innovative and impressive robots, such as Sophia (the first robot to ever be granted citizenship in any country,) are costly and it

What is the likely impact? (300 words) What is the potential impact of this development? What is likely to change? Which people will be most affected and how? Will this create, replace or make redundant any current jobs or technologies?

How will this affect you? (300 words) In your daily life, how will this affect you? What will be different for you? How might this affect members of your family or your friends?