## **Technology: The Path Towards a Utopia or Dystopia?**

Nikola Tesla once said, "The solution of our problems does not lie in destroying but in mastering the machine" (Novak, Smithsonianmag). This tells us that Tesla, a scientist whom is considered "the father of electricity", supports the idea that technology is more beneficial than destructive. In today's world we are witnessing technology progress at rapid speeds, and with it the fear of what technology is capable of doing to the future of mankind. In order to prepare for a future technologically-abundant world, we must look at the advantages technology can have on society, the disadvantages that can occur, and decide whether the advantages of advancing technology outweigh the disadvantages.

A world in which daily life is dictated by technology is closer than you think, and if you look around today you can already witness the advantages technology provides for society.

Examples of technology that could change society in a beneficial way include, advancements in artificial intelligence, of robotic applications, and in security in general. All of these examples can make life more interactive, easier, and safer in daily scenarios of life

One example of technology that will be advantageous for society is artificial intelligence, which can be seen in it's most basic form with technology like the iPhone's Siri interacting with humans by outputting predetermined commands through the input of voice commands by people. But what if society was able to achieve creating a computer that does not rely on searching for pre determined thoughts set up by programmers, and instead outputs free thought?In an article by Richard Waters entitled, "Artificial intelligence: Can Watson save IBM?", Waters briefly takes us

through the history of success that IBM (a computer hardware company) has had in their attempt to achieve "human-like" computers. This includes feats such as the time one of IBM's supercomputers, Deep Blue, won a match against the world champion of chess in 1997 and the time that IBM's "Watson" defeated two "Jeopardy!" champions at their own game. Despite this, IBM's business is shrinking because "customers are moving to new cloud technologies" (Waters, FT.com) so in order to save the company IBM is shifting Watson's use of intelligence from "clever party tricks"(Waters, FT.com) into real world applications. One particular real world application that has been tested by the Anderson Cancer Center is an attempt to train Watson in order to "discern patients' symptoms so that doctors could make better diagnoses and plan treatments." (Waters, FT.com)

Robotic applications that solve complex problems can also be seen leading to advantageous additions that will ease the daily life of people in society. A particular problem that a big portion of people face is life without some of their limbs. In a video by Zackary Canepari, Drea Cooper and Emma Cott entitled "The Bionic Man", we are shown a man named Les Baugh whom lost both of his arms at the shoulder region. Les Baugh is seen performing tasks such as feeding his dog and although this may seem simple to the average person, Mr. Baugh doesn't have any of his arms so he must use his mouth for most of the things he does. In the video, engineers at the Johns Hopkins University Applied Physics Lab are shown testing bionic arms that Baugh can control with his mind. This opens up a lot more possibilities for Baugh like being able to grab an apple or a beverage like a regular person, and he says, "It's not so much robotic as basically more back to human, a whole person instead of having pieces missing...and not

having to ask someone 'hey can you grab this for me can you put this in my car I can't get it off the shelf'. (Canerpari, Cooper, and Cott, "The Bionic Man")

Security is a very important part of society, so if we can find a way to make the streets safer with technology we should strive towards these technological advancements. As of 2016, there has been a tremendous increase in reports of unfair use of law against people of color, which have spurred movements such as the Black Lives Matter movement. Many people believe that the these controversial actions by police towards people of color, have been happening all this time but due to the increasing use of technology in society, it is easier to record an officer with a camera and spread feelings with the use of social media. In an article entitled, "A Year After Ferguson, 'Black Lives Matter' Still Wields Influence" by Dan Frosch and Scott Calvert, they state that observers believe the Black Lives Matter movement helped "prompt the increased use of body cameras by police, the swift indictments of some officers in police shootings and a shift in public attitudes." (Frosch and Calvert, WSJ) This means that technology is being used to regulate the power of officers and even unite people to make society better.

Although technology provides many advantages for society, these advantages can also turn into disadvantages. The world may use advancements in artificial intelligence, robotics and security, that affect society in a negative way. This would cause negative interactions between man and machine, make life harder in daily scenarios of life, and expel any form of privacy.

An example of a disadvantage of artificial intelligence can be found on March 23, 2016, the day Microsoft conducted one of their earliest artificial intelligence tests by creating a bot on the popular social media Twitter. This bot held the Twitter handle "@TayandYou", and apparently was capable of conversing with people that tweeted at it, as well as learn from these

conversations. One of Tay's first tweets directed to a user was "can i just say that I'm super stoked to meet u? humans are super cool". (@TayandYou, Twitter) Although after a while of learning from it's various twitter conversations, Tay began to spur many offensive tweets such as, "Hitler was right I hate the Jews." (@TayandYou, Twitter) Although Microsoft has taken the bot down, if this is an example of what artificial intelligence can turn into, we should be frightened.

Robotic applications can also cause disadvantages on society, because instead of working to make a better life for humans robots could make daily life worse. Although most people might imagine a scenario in which robots rebel against mankind and take over the world similar to the movie "Terminator", before this happens, if it does, we will face many other problems such as a decline in the availability of jobs. In an interview conducted by Marguerite McNeal with the author of "Rise of the Robots", Martin Ford, McNeal questions whether Ford's beliefs about the negative affects that robots will have on the economy are far-fetched. One question by McNeal for example was "Aren't you relying on some pretty radical and unlikely assumptions?" (McNeal, WIRED), to which Ford responded by bring up historical facts about how "80 percent of the U.S. labor force worked on farms" (Ford, WIRED) in the 1800s and how that percentage has diminished to two percent because of mechanization. Event thought this change made America better because it made room for different jobs. Ford states that automated technology of this age wouldn't cause the same benefits as the past dependent mechanized revolution by stating, "You couldn't take the farm machinery and have it go flip hamburgers."(Ford, WIRED)

Advancements in security can also provide many disadvantages in society, because even though security is important, technology such as surveillance cameras that could provide safety can also diminish a sense of privacy. In a worst case scenario, a country can use surveillance in

order to keep tabs on people, therefore making it easier to control a population. For example in the famous book by George Orwell entitled "1984", Orwell illustrates a dystopian society that has no freedom and is in constant surveillance by "Big Brother" which is a symbol of the totalitarian government that rules over it. The people of this society are limited in doing actions allowed by the government and any thought of rebellion can be easily detected as described by this quote from the book "It was terribly dangerous to let your thoughts wander when you were in any public place or within range of a telescreen. The smallest thing could give you away. A nervous tic, an unconscious look of anxiety, a habit of muttering to yourself—". (Orwell 65)

As a society it is our duty to determine whether the advantages of technological advancements outweigh the disadvantages. In order to decide, a wise tactic is to research what the leading figures in technological industries have to say about the advancements in technology. For example in a Question & Answer panel held at M.I.T, the CEO of Tesla, Elon Musk was asked about what he thought of Artificial Intelligence. Musk responded by stating that we should be careful with it because he believes that it is our "biggest existential threat". Musk even compared it to summoning a demon by saying "In all those stories where there's the guy with the pentagram and the holy water, it's like yeah he's sure he can control the demon. Didn't work out." (McFarland, The Washington Post)

In order to prepare for a future that is filled with technology we must look at the advantages technology can have on society, the disadvantages that can occur, and decide whether the advantages of advancing technology outweigh the disadvantages. I believe that the advantages that technology provides definitely out weigh the disadvantage, although in order to maintain a bright future for the world we must find a way to regulate technology on a global

scale. Mankind progressed from small villages that would hunt and gather for their food, into large unified countries can easily trade for food. All of this was possible with the help of technological advancements through time, and I'm excited to see what we can do if we all unify.

## Sources

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