Ethics of Artificial intelligence

5CS037 - Concepts and Technologies of AI

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# Introduction

In this report, we are going to have a detailed discussion about the ethics of artificial intelligence. We are going to look at how the future of artificial intelligence going to affect the day-to-day life of people. Furthermore, we are going to look at how privacy and safety have to adept with artificial intelligence.

Before the 1940s artificial intelligence was a thing of science fiction, stories, or even a myth. But in the late 1940 and early 1950 artificial intelligence saw a massive development. Especially after the 1956 Dartmouth summer research project on artificial intelligence, which to the day most people think of as the founding event of AI as a research field. With the rapid development of computational power, the field of artificial intelligence has progressed rapidly in the past three decades (Buchanan, 2007).

Now the artificial intelligence is everywhere. iPhone, home thermostat, speaker, or even a washing machine or a toaster can have a machine intelligence embedded in them.

With artificial intelligence becoming a part of our day to life and controversial projects like the Google's project Maven led most people to rethink ethics and how we are going to use the artificial intelligence and data associated with that. (Novet, 2017)

In the following sections, we will look at the problems we face as use of the artificial intelligence grows.

# 1.Will the robots take our jobs?

The simple answer to the question “will the robots take our jobs?” is yes. But the more important question is will humans be jobless because of robots. For that answer is no. in this section we will discuss the reasons for is that.

When technology evolves the job market evolved by itself. We can see this throughout human history. Once essential equipment like home phones is now obsolete, people rarely use film cameras to take photographs or make videos, use of vinyl is next to nothing. When looking back at these scenarios we can see that several people lost their jobs who worked in the above industries. But there are many new job opportunities created by those new trends that came to replace them.

According to (Maury Gittleman, 2019) we can see a very good example in the trucking industry. Although automated cars have been in the market for few years and there are number of research projects to make the trucking industry more autonomous in this news article, he says that some industries are not easy to make fully automated hence some of our industry can become semi-automated but there will be job opportunities available to humans. We will see this trend in more complicated job roles with lots of variable medical trucking.

But on the other hand, we can see a different development in the fast-food industry which provide thousands of jobs. according to (Desn, 2020) Flippy, a burger-making robot which can work all year long with an average cost of $3 an hour can steal jobs from the human. Furthermore, he says that only with a $10000 upfront cost the restaurant owners will have a more reliable and efficient burger maker with costing less in the long run to the business owners.

By looking at these examples we can see that although there are some jobs that a machine can replace there are some that will not be replaced for a long time.

# 2. Should we give all our data to a robot?

In this section, we will discuss data security regarding artificial intelligence. Data privacy has been a rapidly evolving concept around us. With the age of big data and artificial intelligence, there are many good possibilities with data. Researchers and scientists can use this data to train complex machine learning algorithms to classify medical recodes and identify terrorist attacks even before they happen. (McKendrick, 2019)

But according to (Wachter, 2019) of oxford university, we humans should have a saying in this. Since these algorithms are deciding whether we should get a credit card or go to prison or get a place in a university, this data has been used to control our lives in a way. Because of that, we should have the ability to decide what kind of data should be available to the world about us. Also, we must have the ability to control what kind of algorithms use our data.

Furthermore, according to (Elysse Tom, 2020) world governing bodies must invent new ways to protect against inappropriate data usage. control accidental disclosures and de-identification. But these methods should not hinder the success rate of scenarios like detecting terrorism or classifying medical recodes. There needs to be a successfully balanced scenario that can adapt to the rapid evolution of technology and uses of data.

# 3.Will AI becoming Biased?

To talk about artificial intelligence or in simple terms computers becoming biased first let us look at humans. Humans by nature are biased. When humans see a big dog in a walkway, they will walk away from it. That is by nature, we are biased against dangerous things. This becomes a problem when humans become biased against a certain race or gender. (Ninareh Mehrabi, 2019)

The paper, The Ugly Truth About Ourselves and Our Robot Creations: The Problem of Bias and Social Inequity (Ayanna Howard, 2018) discuss that most of the datasets that we used to train our models contain biased data hens all the models that are being published to the real world contains biased algorithms and there could be many devastating effects in the future. For example in this paper, they say that in the future if we had any robot peacekeepers, we might see that these robots may become more aggressive towards black people. Furthermore, we can see these biased algorithms in search engine delivery. For example, some well paid technical jobs are more visible to men rather than women.

For another example, we can discuss Microsoft’s AI-controlled Twitter bot Tay. (Kleeman, 2016). Tay was created to mimic teenagers and converse with users in real-time. But with time Tay became a racist and sexist robot. Most likely this happened because Tay used racist and sexist comments to modify his behavior.

By looking at these examples we can see that because we humans are biased there is an increased chance that our robots and AI models becoming biased.

# 4.Will AI make Mistakes?

AI becomes dangerous when it makes mistakes. As an example, if an AI model diagnosed cancer as benign it may cause a person to lose his life. According to AI researcher (Shane, 2019) AI do not make mistakes by choice it is only because we do not know how to make AI do what we want. Furthermore, according to many leading experts in the field of technology including Hawking, Musk, Wozniak, and Gates, there could be a great complication because we do not know how to make AI do what we want. In the following section, we will look at some mistakes AI made and what consequences they had on human life.

According to a report in New York times by (Wakabayashi, 2018) there was an accident in San Francisco involving a self-driving uber taxi. Because of that, a pedestrian lost his life. Furthermore, according to a report from (BBC, 2018) a woman’s face that was on a bus ad was falsely identified as jaywalking.

When looking at these reports we can see there are lots of scenarios that AI is making mistakes. Some of them are life-threatening. most of these mistakes were the result of errors in the algorithms. But in a future where artificial intelligence is going to be everywhere, we need to find ways to remove the error proneness of AI.

# 5.Should AI be used to monitor and control people?

We already live in a world that everyone is monitored. Our social media interaction has been used to suggest ads, predict election results, and predict riots. Furthermore, there are surveillance systems that can track the movements of individuals. (Butler, 2014) As we discussed previously this continuous monitoring may also have a negative effect. Instead of identifying a bus ad as jaywalking what if an AI identified an innocent person as a murderer. or flagged a normal tweet as trying to start a riot. There are many possibilities we need to think about before we use artificial intelligence to monitor people.

Furthermore, according to (Stuart Armstrong, 2012) there is much more to think about before allowing supreme intelligence to control humanity. Although it may have more capacity to solve problems it is unsafe. even an oracle AI (which is far safer than unrestricted AI) is not safe.

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