Ethical Issues in Artificial Intelligence

The notation of "Artificial Intelligence" (AI) is understood broadly as any kind of artificial computational system that shows intelligent behavior. The world is facing a rapid rise of 'Artificial Intelligence' (AI). For decades, artificial intelligence (AI) was the engines of high-level STEM research and it will have significant impact on the development of humanity in the near future.

Optimizing logistics, detecting fraud, composing art, conducting research, providing translations: intelligent machine systems are transforming our lives for the better. As these systems become more capable, our world becomes more efficient and consequently richer.

This social transformation will have deep ethical impact, with these powerful new technologies both improving and disrupting human lives. AI, as the externalization of human intelligence, offers us in amplified form everything that humanity already is, both good and evil. Much is at stake. At this crossroads in history, we should think very carefully about how to make this transition, or we risk empowering the grimmer side of our nature, rather than the brighter.

From 1927 to 2019 there have been more than 100 films produced worldwide about artificial intelligence. And while some scenarios are depicted in a good light, the rest are downright horrific. In movies such as *The Terminator, The Matrix, Avengers: Age of Ultron* and many others, the movie industry placed into shared imagination scenes demonstrating how more intelligent machines will take over the world and enslave or totally wipe humanity from existence. The potential for AIs to become more superior than any human intelligence paints a dark future for humanity.

Tech giants such as Alphabet, Amazon, Facebook, IBM and Microsoft- as well as individuals like Stephen Hawking and Elon Musk – believe that now is the right time to talk about the nearly boundless landscape of artificial intelligence.

That's why it has raised fundamental questions about what we should do with these systems, what the systems themselves should do, what risks they involve, and how we can control these.

AI ethics is a system of moral principles and techniques intended to inform the development and responsible use of artificial intelligence technology. As AI has become integral to products and services, organizations are starting to develop AI codes of ethics. An AI code of ethics, also called an AI value platform, is a policy statement that formally defines the role of artificial intelligence as it applies to the continued development of the human race. An AI ethics framework is important because it shines a light on the risks and benefits of AI tools and establishes guidelines for its responsible use. AI ethics becoming a problem now because Machine learning (ML) through neural networks is advancing rapidly for three reasons:

1. Huge increase in the size of data sets.
2. Huge increase in computing power.
3. Huge improvement in ML algorithms and more human talent to write them.

All these three trends are centralizing of power, and "With great power comes great responsibility."

1. **Job Loss**

   One of the primary concerns people have with AI is future loss of jobs. Should we strive to fully develop and integrate AI into society if it means many people will lose their jobs – and quite possibly their livelihood.

   The hierarchy of labor is concerned primarily with automation. According to the new McKinsey Global Institute report, by the year 2030, about 800 million people will lose their jobs to AI-driven robots. Some would argue that if their jobs are taken by robots, perhaps they are too menial for humans and that AI can be responsible for creating better jobs that take advantage of unique human ability involving higher cognitive functions, analysis and synthesis.

   However, it's becoming increasingly clear that AI is not a job killer, but rather, a job category killer. As has happened with every wave of technology, from the automatic weaving looms of the early industrial revolution to the computers of today we see that jobs are not destroyed, but rather employment shifts from one place to another and entirely new categories of employment are created. We can and should expect the same in the AI-enabled economy. Research and experience are showing that it's inevitable

that AI will replace entire categories of work, especially in transportation, retail, government, and customer service. On the other hand, companies will be freed up to put their human resources to much better, higher values tasks instead of taking orders, fielding simple customer service requests or complaints, or data entry related tasks.

Indeed, the move to this new age of digital transformation is creating concerns about labor displacement, with or without the power of AI. All AI is doing is hastening digital transformations across particular business processes. As companies are looking to adapt and implement AI strategies we think it's important to have open and honest conversations with your employees. In particular, experience and research are showing that companies that adopt augmented and intelligence approaches, where AI is augmenting and helping humans to do their jobs better, rather than fully replacing the human, not only shows faster and more consistent ROI for organizations, but also is welcomed much more warmly by employees. People feel more comfortable working with machines instead of being replaced by machines.

2. Inequality

Our economic system is based on compensation for contribution to the economy, often assessed using an hourly wage. The majority of companies are still dependent on hourly work when it comes to products and services. But by using artificial intelligence, a company can drastically cut down on relying on the human workforce, and this means that revenues will go to fewer people. Consequently, individuals who have ownership in AI-driven companies will make all the money. We are already seeing a widening wealth gap, where start-up founders take home a large portion of the economic surplus they create. In 2014, roughly the same revenues were generated by the three biggest companies in Detroit and the three biggest companies in Silicon Valley ... only in Silicon Valley there were 10 times fewer employees.

3. Humanity

Artificially intelligent bots are becoming better and better at modelling human conversation and relationships. In 2015, a bot named Eugene Goostman won the Turing Challenge for the first time. In this challenge, human raters used text input to chat with an unknown entity, then guessed whether they had been chatting with a human or a machine. Eugene

Goostman fooled more than half of the human raters into thinking they had been talking to a human being. This milestone is only the start of an age where we will frequently interact with machines as if they are humans; whether in customer service or sales. While humans are limited in the attention and kindness that they can expend on another person, artificial bots can channel virtually unlimited resources into building relationships. Even though not many of us are aware of this, we are already witness to how machines can trigger the reward centres in the human brain. Just look at click-bait headlines and video games. These headlines are often optimized with A/B testing, a rudimentary form of algorithmic optimization for content to capture our attention. This and other methods are used to make numerous video and mobile games become addictive. Tech addiction is the new frontier of human dependency. On the other hand, maybe we can think of a different use for software, which has already become effective at directing human attention and triggering certain actions. When used right, this could evolve into an opportunity to nudge society towards more beneficial behavior. However, in the wrong hands it could prove detrimental.

4. Artificial stupidity

Intelligence comes from learning, whether you're human or machine. Systems usually have a training phase in which they "learn" to detect the right patterns and act according to their input. AIs are not immune to making mistakes and machine learning takes time to become useful. If trained well, using good data, then AIs can perform well. However, if we feed AIs bad date or make errors with internal programming, the AIs can be harmful. Teka Microsoft's AI chatbot, Tay, which was released on Twitter in 2016. In less than one day, due to the information it was receiving and learning from other Twitter users, the robot learned to spew racist slurs and Nazi propaganda. Microsoft shut the chatbot down immediately since allowing it to live would have obviously damaged the company's reputation. Yes, AIs make mistakes. But do they make greater or fewer mistakes than humans? How many lives have humans taken with mistaken decisions? Is it better or worse when an AI makes the same mistake? That questions are comes everyone's mind.

5. Evil genies

In this TEDx speech, Jay Tuck describes AIs as software that writes its own updates and renews itself. This means that, as programmed, the machine is not created to do what we want it to do — it does what it learns to do. Jay goes on to describe an incident with a robot called Tallon. Its computerized gun was jammed and open fired uncontrollably after an explosion killing 9 people and wounding 14 more. Predator drones, such as the General Atomics MQ-1 Predator, have been existence for over a decade. These remotely piloted aircraft can fire missiles, although US law requires that humans make the actual kill decisions. But with drones playing more of a role in aerial military defense, we need to further examine their role and how they are used. Is it better to use AIs to kill than to put humans in the line of fire? What if we only use robots for deterrence rather than actual violence? The Campaign to Stop Killer Robots is a non-profit organized to ban fully-autonomous weapons that can decide who lives and dies without human intervention. "Fully autonomous weapons would lack the human judgment necessary to evaluate the proportionality of an attack, distinguish civilian from combatant, and abide by other core principles of the laws of war. History shows their use would not be limited to certain circumstances."

6. Racist Robots

Though artificial intelligence is capable of a speed and capacity of processing that's far beyond that of humans, it cannot always be trusted to be fair and neutral. Google and its parent company Alphabet are one of the leaders when it comes to artificial intelligence, as seen in Google's Photos service, where AI is used to identify people, objects and scenes. But it can go wrong, such as when a camera missed the mark on racial sensitivity, or when a software used to predict future criminals showed bias against black people. We shouldn't forget that AI systems are created by humans, who can be biased and judgemental. Once again, if used right, or if used by those who strive for social progress, artificial intelligence can become a catalyst for positive change.

7. Security

The more powerful a technology becomes, the more can it be used for nefarious reasons as well as good. This applies not only to robots produced to replace human soldiers, or autonomous weapons, but to AI systems that can cause damage if used maliciously. Because these fights won't be fought on the battleground only, cybersecurity will become even more important. After all, we're dealing with a system that is faster and more capable than us by orders of magnitude.

8. Singularity

The reason humans are on top of the food chain is not down to sharp teeth or strong muscles. Human dominance is almost entirely due to our ingenuity and intelligence. We can get the better of bigger, faster, stronger animals because we can create and use tools to control them: both physical tools such as cages and weapons, and cognitive tools like training and conditioning.

Will AIs evolve to surpass human beings? What if they become smarter than humans and then try to control us? Will computers make humans obsolete? The point at which technology growth surpasses human intelligence is referred to as "technological singularity." Some believe this will signal the end of the human era and that it could occur as early as 2030 based on the pace of technological innovation. AIs leading to human extinction — it's easy to understand why the advancement of AI is scary to many people.

9. Robot Rights

While neuroscientists are still working on unlocking the secrets of conscious experience, we understand more about the basic mechanisms of reward and aversion. We share these mechanisms with even simple animals. In a way, we are building similar mechanisms of reward and aversion in systems of artificial intelligence. For example, reinforcement learning is similar to training a dog: improved performance is reinforced with a virtual reward. Right now, these systems are fairly superficial, but they are becoming more complex and life-like. Could we consider a system to be suffering when its

> reward functions give it negative input? What's more, so-called genetic algorithms work by creating many instances of a system at once, of which only the most successful "survive" and combine to form the next generation of instances. This happens over many generations and is a way of improving a system. The unsuccessful instances are deleted. At what point might we consider genetic algorithms a form of mass murder? Once we consider machines as entities that can perceive, feel and act, it's not a huge leap to ponder their legal status. Should they be treated like animals of comparable intelligence? Will we consider the suffering of "feeling" machines? Some ethical questions are about mitigating suffering, some about risking negative outcomes. While we consider these risks, we should also keep in mind that, on the whole, this technological progress means better lives for everyone. Artificial intelligence has vast potential, and its responsible implementation is up to us.

Yes, the thought of increasingly present AI systems that surpass human intelligence is scary. And the ethical issues that come with AI adoption are complex. The key will be to keep these issues in mind in order to analyze the broader societal issues at play. Whether AI is good or bad can be examined from many different angles with no one theory or framework being the best. We need to keep learning and stay informed in order to make good decisions for our future

Now comes the positive thinking, in the future robots will be under our control and robots will do most of our work. So how we will spend most of our time when robots will do most of our work. Most people still rely on selling their time for enough income to sustain themselves and their families. We can only hope that this opportunity will enable people to find money in non-labor activities, such as taking care of their families, engaging with their community and learning new ways to contribute to human society.

If we succeed in the passage, one day we may look back and think that it was barbaric that man had to sell most of his waking time to survive.

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