Negative Impacts of Artificial Intelligence

This editorial is based on the article ["The chilling consequences of the Internet of Things"](#) which appeared in "Livemint" on 15th May, 2019. The article talks about the negative side of Artificial Intelligence.

What is Artificial Intelligence (AI)?

"Artificial intelligence is that activity devoted to making machines intelligent, and intelligence is that quality that enables an entity to function appropriately and with foresight in its environment."

What are the threats from AI?

AI brings impressive applications, with remarkable benefits for all of us; but there are notable unanswered questions with social, political or ethical facets. These we have to be aware of.

Integrity and unbiased systems

AI systems learn by analyzing huge volumes of data and they keep adapting through continuous modelling of interaction data and user-feedback. **So, how can it be ensured that the initial training of the AI algorithms is unbiased?** What if a company introduces bias via the training data set (intentionally or otherwise) in favour of particular classes of customers or users?

Access to data, knowledge, technology

In an interconnected world, a small number of companies are collecting vast amounts of data - access to this consolidated data would allow an accurate *replay* of anybody's day-to-day life in terms of *activities, interactions* and explicitly stated or implicitly identified *interests;* somebody (or something) could know our *mobility history* and *patterns,* or anything of anyone's mundane life pattern.

Privacy

The *right to privacy* is under threat, obviously considering the possibility of unauthorized access to one's *online activity* data. But even in the case of an offline user — somebody who has deliberately decided to stay 'disconnected' — the *right to privacy* is still under threat, like a disconnected user moving through a 'smart city'.

Technological unemployment

- **This is *unemployment which is 'explained' by the introduction of new technologies* —** i.e the jobs replaced by intelligent machines or systems.

    - There will be significant changes in the workforce and the markets —some roles and jobs will become obsolete, industries will be radically transformed, employment models and relationships will be redefined.

Does technology create unemployment?

- **All the three previous industrial revolution soaked up labour in various forms.**

    - For example, in the 1st industrial revolution there was a great need for manual industrial labour.
    - Similarly in the 2nd industrial revolution technical workers were needed.
    - The 3rd industrial revolution created a more specific group of employees namely the managerial and technocrat class.
- **But what the 4th industrial revolution will need as labour is still not clear** and there is speculation that it could help in creating mass unemployment unlike the previous industrial revolutions.

Disproportional power and control over data

- **Technology giants are investing heavily in regard to artificial intelligence,** both at the scientific/engineering and also at the commercial and product development level.

    - These big players have an unmatched advantage when compared to any ambitious competitor out there which is a symptom of data-oligarchic society.

Security

- **Security is a critical aspect —** if somebody compromises a smart system, for instance an autonomous car, the consequences can be disastrous, particularly given the ever increasing cyber security threat.
- **Lethal Autonomous Weapons**

    - **In a military context this autonomy in decision-making becomes scary –** the *Lethal Autonomous Weapons* which refer to advanced robotic systems of the future, will be capable of hitting targets without human intervention or approval.
    - But, who will be controlling the *design, operation and target assignment* to killer robots? How will such a robot be able to understand the nuances regarding a complex situation and make life-threatening decisions?

The concept of 'superior orders'

- Superior orders or **"Befehl ist Befehl *(an order is an order)"***, is a plea in a court of law that a person—whether a member of the military, law enforcement, a fire fighting force, or the civilian population—is not be held guilty for actions ordered by a superior officer or an official.
- However, **in the Nuremberg trials, the role of human consciousness was given its due importance**.
- And with the onset of an era, where machines will be making its own decisions, the role of *consciousness* could be very much undermined.

Way Forward

- AI technological revolution brings great opportunities for prosperity and growth — but it has to be ensured *that the technology* will be applied and used in the right direction.

    - In this regard, some steps are already being taken in different parts of the world, like **Explainable AI (XAI)** and the **'Right to Explanation'** which allow understanding the models used for artificial intelligence (and how they make particular decisions — which is also required by the **European Union GDPR — General Data Protection Regulation**).
- It can also be said that, AI may suffer from what is known as "AI effect" or the "odd paradox"—AI

brings a new technology into the common fold, people become accustomed to this technology, it stops being considered AI, and newer technology emerges.

Thus, we can conclude that the growth of AI and AI based applications should not be halted but its growth and usage should be monitored and regulated at various levels respectively.

Read More:

- In Depth: Industrial Revolution 4.0
- Future of Work

- Globalization 4.0

- Universal Basic Income (UBI)

Drishti Input:

"Technology in itself is value neutral; it's the structure of society that guides its direction". In this context, critically discuss the scope of Artificial Intelligence in society.

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