

## Artificial intelligence and its impacts on the society

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### Abstract

Artificial intelligence (AI) is considered as a new concept. It is associated with the concept that intelligence is supposed to be manifested by the computer systems. It was the sole property of humans previously. Without human help, the AI can take decision and can solve complex problems in different sectors of the society. It has brought in a vital societal change in the perspective of revelation of human intelligence. There was an implicit assumption that humans possess hierarchical superiority in exhibiting intelligence in comparison to other forms of life. This fundamental assumption has been questioned owing to the anticipated entry of such entities which, in the familiar thinking, are not alive but nonetheless is considered superior to humans intellectually and perhaps ultimately morally. The entry of this cutting age technology (AI) has caused some impacts in the society deriving huge advantages as well as throwing some entangled challenges those are apprehended to pose threat even to the human rights bringing in a thorough societal change in different ramifications.

**Keywords:** intelligence, Artificial, bringing, associated

### 1. Introduction

The concept of AI is persisting as long back as 1950s. In those days, people used to have possessed high hopes towards success of AI in every sector of the society [1, 2, 3, 4]. In the context of problem solving without human help, AI is considered as an accurate tool [5, 6, 7, 8, 9]. AI is usually considered as a computer-centric technology capable of easily solving various problems in the complex situations in a flawless, cost-effective and quick manner without slightest assistance of humans<sup>1</sup> which was previously deemed to be unique treasure of humans [10, 11, 12]. Applications of AI are associated with analysis of information including personal information for learning something and for arriving at an accurate decision intelligently by its own<sup>2</sup> [13, 14, 15, 16]. This ever-increasing utilization of AI in every sphere of the society in various sectors has brought in multifarious vital challenges towards facing a wide range of legal as well as ethical dilemmas. It has propelled the necessity for establishing a reasonable balance between possibility of rapid advancement in the society taking help of AI and protection of privacy of personal data endangering societal normative values [17, 18, 19, 20, 21]. So far as India is concerned, the issue of privacy protection has gained a new momentum especially in view of the recent judgement of Supreme Court of India [22, 23, 24]. However, in our society the effects of AI have not cast shadow till now in a huge magnitude but there exists many unsolvable questions in our radar though they are not arising currently with perceptible acuteness, but, it will be perhaps not cogent and will be too late to introspect if we do not think it now for the society and leave it to think once they pose to the society with acuteness. In this background this paper has taken an attempt to project the good effects of AI on the society, challenges faced by the society by the applications of AI along with prescribing some recommendations coupled with a comprehensive conclusion at the end.

### 1.1 AI and Society

The anticipated arrival of this AI technology has brought a short, medium and long-term changes in our society. Entry of AI in the society has brought in major implications for professionals who are used to deal with modern technologies, to the legal practitioners nurturing effects of influence of AI with its regulatory implications, to the technocrats who are frequently taking help of this modern technology to arrive at a precise decision in a complex technological issue [25, 26, 27]. AI is also posing vital implications to the general citizens by providing them enormous help in a cost-effective manner as well as posing some entangled challenges even jeopardizing their basic rights including privacy infringement. In this perspective, this paper has taken a calibrated, comprehensive and holistic attempt to analyze briefly how the arrival of this AI technology is effectively contributing to the societal changes by providing advantages as well as disadvantages to the humans [28, 29, 30]. In doing so, this study would deal with for analyzing how, through introduction of different regulatory implications, the applications of AI in the society can be controlled so that it can hardly cause any harm to the society jeopardizing security and privacy of personal data of humans, abusing their human rights and also this paper would mention how the AI is deriving immense benefits to the society in different sectors like Agriculture, healthcare and so on [31, 32, 33].

### 2. AI for 'Social Good'

It is a fact that every technological innovation invites effective potential for advancement as well as for damages to the society. AI can analyze and can process data [34, 35, 36]. This capability of AI is expected to help for alleviating several pressing problems of the world. In this way AI can do good to the society.

### 2.1 AI is helpful for healthcare industry

There has been immense progress for diagnosis and treatment of diseases by the help of AI. In rural areas there are problems of accessibilities of the doctors or health-care staff. As a result, people living in those remote areas feel insecure regarding treatment of their health hazard<sup>[4]</sup>. AI has come to rescue this problem<sup>[37, 38]</sup>. AI can predict outbreaks of diseases well ahead so that the healthcare staff can have a scope to take preventing steps well ahead before the actual outbreaks take place<sup>[5]</sup>. By the help of AI, instruments are there for image recognition<sup>[39]</sup>. This is helping the diseased people who are visually impaired<sup>[6]</sup>. There are other examples where AI can help the Healthcare industry<sup>[40]</sup>.

### 2.2 AI is helpful for agriculture sector

By the help of AI, it is now being possible to obtain appropriate data concerning to issues of agronomic and weather information<sup>[41, 42]</sup>. This is helpful for the farmers to improve the production of crops. This process is called precision agriculture that helps to improve productivity of crops helpful to address the need of the growing population<sup>[43, 44]</sup>.

### 2.3 AI and Climate Change

By the help of AI, weather events can be predicted well ahead. It can also predict weather situation and occurrence of natural disasters. By the help of AI, it has become possible to identify the disease-spreading insects and animals<sup>[45, 46]</sup>.

### 2.4 AI is helpful to improve work efficiency

Governments of many countries are now using AI technology to improve the efficiency of their employees working in all levels. Governments of different countries are also taking help of AI to improve their financial allotment mechanisms and to help to optimize their budgets. There are other instances through which society is being benefited by the grace of AI<sup>[47, 48]</sup>.

### 3. AI and Challenges to the society

AI can analyze different collected information of various nature. This has brought in greatest concerns over data protection, cyber security as well as data privacy. In addition to these challenges, the issue of AI concerning to its borderless character and personhood issue are causing problem to the jurisprudence<sup>[49, 50, 51]</sup>. So far as India is concerned, the status of AI in the legal environment is still greyish. That is why Indian jurisprudence could not take appropriate steps to clear up vital debates in respect of legal applicability of AI algorithm<sup>[52, 53]</sup>.

The main legal challenges around AI are as follows:

1. How to safeguard the privacy of data from the clutch of AI?
2. How it will be possible to safeguard security, ethical and privacy norms from the applicability of AI?
3. Use of AI in various fields has posed a challenge regarding problem of employment curtailment.
4. Digitalization with the help of AI through application of Internet of Things (IoT) has made the situation ideal for cyber-attack.

### 4. Recommendations

In India, the mission has been set up in the name of 'Inter Ministerial National Artificial Intelligence Mission'<sup>[54]</sup>. This mission would act as a principal agency to control and monitor all AI-related activities. This agency would confine its activities in the following issues.

1. To establish reliable coordination amongst various ministries to supervise AI applications.
2. To create a repository of all research works covering AI activities for improving studies on AI.
3. To establish 'Center of Excellence' to enhance facilities for research work covering AI and to formulate the testing mechanisms to weigh performances of AI. Besides, it is required to
  - a. Set up a digital data bank to facilitate collection of cross-industry data beneficial for start-ups.<sup>[55, 56, 57, 58]</sup>
  - b. There should be a Bureau of Indian Standard for taking appropriate initiatives to formulate standards in terms of AI acceptable internationally.<sup>[59, 60, 61, 62]</sup>
  - c. Set up a data ombudsman to settle AI-centric issues. This will be formed under commerce ministry, Government of India.<sup>[63, 64]</sup>

### 5. Conclusion

Throughout the world people are depending on use of AI and it is expected this trend will increase with passage of time. Development of AI for the societal benefits will be hampered if the concerns covering privacy and security protection for personal data are not properly addressed by formulating appropriate policy, laws and regulations<sup>[65, 66, 67, 68]</sup>. Those are required to be consistently implemented with good governance. Focus is to be given to see that in the name of protection of privacy, the authority should not be unreasonable and over strict, because in that case, development with the help of AI will be impeded causing an obstruction towards societal growth. The authority should be vigilant to stick to the ethical standard in structuring AI-program<sup>[69, 70, 71, 72]</sup>. In India, there is no AI-policy and absence of this might impeded progress because the society wants to take the help of AI and at the same time expects to keep data privacy duly protected. This balance will be ensured by strict adherence to the policy of AI which should be, of course, consistent, reasonable and executable<sup>[73, 74, 75]</sup>.

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