

# Coexistence and Amalgamation of Artificial Intelligence and Human Intelligence

## Global Opportunities and Challenge for the Human Rights

**Dr. Shailesh Natu**

Assistant Professor, Symbiosis School of Banking and Finance, Symbiosis  
International (Deemed University),  
Gram Lavale, Taluka Mulshi, Pune - 412115, India  
Email: shaileshnatu@gmail.com Mobile: +91-9860350232

**Abstract:**

Use of Artificial Intelligence (AI) is proving to be positive as well as negative catering to different fields having different dimensions. With amalgamation of human intelligence and artificial intelligence, Development and implementation of AI is no longer restricted to innovation labs. It is now being used in our daily lives. Businesses are taking advantage of technological advancements and effective implementation of AI. The key to balance between AI and human intelligence lies in leveraging the right opportunities.

Use of technology is now becoming a right and new normal. On the other hand, fundamental human rights can be deprived of by using AI. It has entered into our private lives through mobile phones, social media, e-commerce portals and various gadgets. Predictive analysis in terms of policing can lead to discrimination based on race, caste, religion, gender. One of the examples of how the data is collected through mobile is whenever any app is being installed it asks for permission to access the files, photos, location etc. This data is used for predictive analysis using AI algorithms.

In this article, deliberations are made regarding the artificial intelligence and human intelligence, benefits and misuse of AI and global challenges for human rights as there is a concern whether artificial intelligence will over power human intelligence.

**Keywords:**

Artificial Intelligence, Human Intelligence, Human Rights, Social disruption, Data privacy, Personal privacy, General Data Protection Regulation, Universal Declaration of Human Rights

**Introduction**

Artificial Intelligence (AI) has fundamentally changed the way we think, work and live. AI can be used in day to day activities. Sometimes when we think about something and it appears before us. There is no magic about it. It is just based on the data we continuously provide to the systems. Systems collect the data, stores it, processes it and interprets it and present it to us again. “More the better” is the rule of the game. With the maximum data one can expect more accuracy. It depends upon how we look at it and how we want to use it. AI can solve complex problems and can be used for growth, prosperity, development and fulfillment of human rights.

Most AI applications are dependent on huge volumes of data to make intelligent decisions. Machine

Learning systems rely on data. As the personal data is sensitive in nature which is fed into the system, it may result into breach of data and identity theft. European Union (EU) has implemented the General Data Protection Regulation (GDPR) designed to ensure the protection of personal data based on the observation that decisions are taken by machines using the personal data. It will give power to data scientists to develop AI without compromising users’ data security and confidentiality.

One of the side effects of AI could be replacing human intelligence completely by machines which can change the nature of work and result into huge losses in job and increase in income inequality. Use of AI raises a few serious questions whether business conditions, legal framework, mindset of people and our current policies and methods to protect human rights are fit for purpose.

**Artificial Intelligence (AI):**

As per Merriam Webster dictionary, Artificial Intelligence (AI) is a branch of computer science where intelligent behavior is replicated in the computers. It is the capability of a machine to imitate intelligent human behavior. In modern times AI is defined as “the study and design of intelligent agents”. John McCarthy has coined this term in 1956. He defines AI as "the science and engineering of mak-

ing intelligent machines."

**Human Intelligence:**

Intelligence is all about how the information is perceived, how the knowledge is retained and apply it based on the environment and context.

Intelligence is a natural phenomenon exhibited by animals and humans.

Human intelligence deals with high level cognition, self-awareness and motivation. Cognition enables us to learn, create concepts, understand and reason, while perceiving and interacting with our environment.

Human Intelligence is the quality of the mind. Human mind is capable of learning from past experiences, adapting to new situations, handling of abstract ideas and the ability to change using the gained knowledge. In a 1921 symposium the American psychologists Lewis M. Terman and Edward L stressed on the ability to think abstractly. Thorndike disagreed with this definition of intelligence and emphasized on learning and the ability to give good responses to questions.

**Human Rights:**

Scottish philosopher John Locke argues that all individuals are equal in the sense that they are born with certain absolute natural rights. Natural rights are God-given and can never be taken or even given away. According to him, life, liberty and property are fundamental natural rights.

By nature, all men are equally free and independent and they have certain intrinsic rights. They can enjoy basic right to life and liberty has been announced in Virginia Declaration of Rights in 1776.

The term human rights means individual and collective rights are protected in the Universal Declaration of Human Rights (UDHR). It is a historic document adopted by the United Nations General Assembly at its third session on 10th December 1948 as Resolution 217 in Paris, France.

**Artificial Intelligence verses Human Intelligence**

Artificial Intelligence as an opportunity

AI Systems have proved to be boon as they are being used in public and private sectors in the area of medical, agriculture, tourism, banking and finance, healthcare etc. It can improve the quality of life and can contribute in sustainable development.

Artificial Intelligence has become omnipresent nowadays. Around us, we are witnessing technological advancement and AI is being used in it. AI is certainly an opportunity and taking us ahead as a human kind. AI can be used in many ways and many areas including but not limited to Medical, Quality Education, Gender Equality, Economic Growth, Peace and Justice.

| <b>Parameter</b>         | <b>Artificial Intelligence</b>   | <b>Human Intelligence</b>   |
|--------------------------|--|---|
| <b>Speed</b>             | AI system can make a million diagnosis in ~ 10 minutes   | Using Human Intelligence a doctor can make a single diagnosis in ~10 minutes  |
| <b>Operate 24/7</b>      | Computers don't need vacations or sleep, they can work without stopping  | Human needs rest. Cannot work continuously without rest   |
| <b>Biasness</b>          | It is dependent on the data and makes the decision based on available data   | Human can be biased. Decisions can be made based on the information available and past experiences using human intelligence |
| <b>Accuracy</b>          | If the huge data is provided there is a probability of accurate results  | Because of human intervention it is prone to error  |
| <b>Dominance</b>         | Significant when it comes to monotonous judgments. May not be able to give accurate result if the situations are different every time and if the data provided is not sufficient | Capable of handling challenging situations every time   |
| <b>Energy efficiency</b> | ~2,000 watts for modern deep learning machine  | ~25 watts for typical human brain   |
| <b>Universal</b>         | Machine is usually designed to handle a few tasks  | Humans can manage hundreds of different skills during life  |
| <b>Multi-tasking</b>     | Time required to teach system about each and every responsibility is considerably high   | Human being can work on multiple responsibilities   |
| <b>Decision making</b>   | Even the most advanced robots can hardly compete in mobility with 6 years old child. We have got this result after 60 years of research and development.                         | Humans have learned the ability to make decisions from experiences  |

Table 1: Difference between Artificial Intelligence and Human Intelligence

| Medical and Well being   | Quality Education  | Gender Equality   | Economic Growth   | Peace and Justice   |
|--|--|---|---|---|
| <ul style="list-style-type: none"> <li>• Maintaining electronic patient records and computer based treatment tools and techniques. Using AI, developing innovative practices for good health and well being</li> </ul> | <ul style="list-style-type: none"> <li>• AI can be used in developing digital learning platforms, grading process where human bias can be avoided, administrative work, admission process and many such areas</li> </ul> | <ul style="list-style-type: none"> <li>• In various sectors, men dominance is high in leadership positions. AI can help in reducing this inequality and help choose women leadership based on the intelligence, leadership qualities, capability</li> </ul> | <ul style="list-style-type: none"> <li>• Use of AI will positively impact on automation, division of labor, elimination of income discrimination, growth in domestic production etc. It will help increase in labor productivity and enable people to be efficient</li> </ul> | <ul style="list-style-type: none"> <li>• For promoting peace, inclusive and sustainable development, AI provides access to justice for all</li> </ul> |

Figure 2: Areas in which AI is being used

### Artificial intelligence violating human rights

Recently US government questioned Facebook (CEO – Mark Zuckerberg) about the failure of Facebook AI which was unable to detect hate spreading messages. Also investigating agency questioned about the data leak. Biasness and discrimination have become the topics of concern which has huge negative social impact. When we make use of social media it is sometimes evident that discriminatory advertisement or feeds are shown which needs to be controlled and regulated. At the same time, when words like control and regulations are used it does not certainly means that social or moral

policing or imposing restrictions on freedom of expressions.

At national and international level, there is a need to have well defined norms to tackle artificial intelligence related challenges which are in line with the human rights laws specific to the country and internationally. There is a need to define and fix the accountability if the human rights are violated. Will it be an individual or collective responsibility? Framework / guidelines or norms should consistently and continuously endorse human dignity regardless of country or jurisdiction.

Implementing human rights can help identify and anticipate some of AI's social problems. It can help to design framework for formulating policies and safeguards society's

interest and promote positive uses. Those who are working in the field of AI needs to consider various aspects of human rights such as right to equality, non-discrimination, right to privacy and freedom of expression. At the same time, those who are working actively on human rights need to engage in AI governance and monitoring.

### **Global challenges for human rights**

Thought leaders across the globe have expressed concerns over AI. It can enable the achievement of global development goals. However, computer based technologies which simulate human intelligence, may work against human well-being, safety and security. While developing AI systems, we need to make sure it will not over power natural intelligence.

Predictive ability of AI systems may lead to discrimination, spread hatred, biasness. There is a possibility of invasion into data privacy, personal privacy as it is continuously collecting data through various platforms, apps, websites, cookies, digital surveillance, accessing geographical location etc.

As we are discussing about AI and data privacy, European personal data has been governed by the regulatory frame of the General Data Protection Regulation (GDPR). European countries are taking efforts to address the question of how to deal

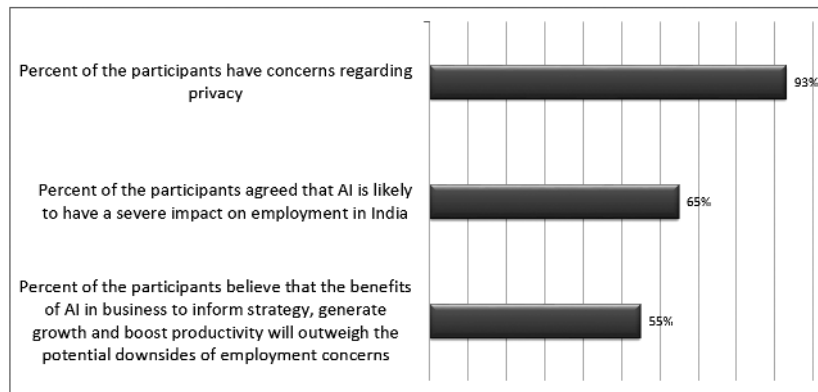
with personal data.

With the implementation of GDPR, lawmakers believe that the companies such as Facebook and Google, at least when providing services to users, must explain their algorithmic decision making processes. It will keep check on companies which are collecting and sharing the data.

Companies shall be held accountable for data security and privacy. This might look like a constraint in the short term, but it will certainly help in creating transparent and trustworthy environment which is essential to the success of AI.

Globally the discussion is going on about loss of jobs, displaced workers, fair distribution of wealth, social disruption because of suppression of human rights and threat to social, economic, and cultural rights. Recently, Professor Martyn Thomas in a public lecture broadcast by Gresham College talked about retraining of displaced workers. If it is not dealt with empathetically, social disruption could be enormous. It is demonstrated by the recent cyber attacks that, personal data can be retained by machines and can be accessed later for criminal purposes.

In this article secondary data is referred which was published by PricewaterhouseCoopers (PWC) India. PWC is one of the Big Four



companies and biggest professional services networks in the world, offering audit, assurance services, taxation, management consulting, advisory, actuarial, corporate finance and legal services. PWC conducted a survey about the use of artificial intelligence.

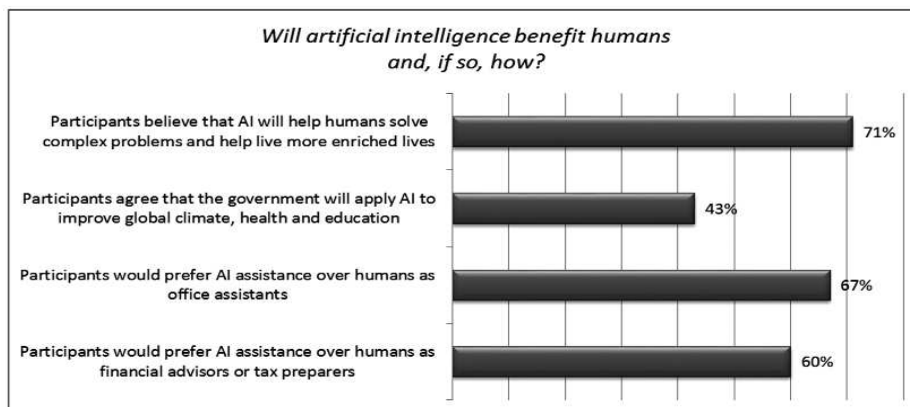
**Figure 3: Views of participants over impact of AI**

In the survey conducted, it was observed that 93% of the participants have expressed their concerns regarding privacy of data. 65% of the participants agreed that AI is likely to have a severe impact on employment in India. 55% of the participants believe that the benefits of AI in business to inform strategy, generate growth and

boost productivity will outweigh the potential downsides of employment concerns. Statistical information depicts that if there is a concern for the negative impact on employability, participants are hopeful that AI will boost the growth and productivity in the future and it will outweigh the concern of employability.

**Figure 4: Ways by which humans are benefited by AI**

Participants responded to the questions on which how AI will help solve complex problems, solve climate, health and education problems. People would like to prefer AI assistance instead of office assistant, which pose a concern over loss of



jobs. In the domain of Banking and Finance and Advisory Services AI is taking over humans. 71% of the participants believe that AI will help humans solve complex problems and help live more enriched lives. 43% of the participants agree that the government will apply AI to improve global climate, health and education. 67% of the participants would prefer AI assistance over humans as office assistants. 60% of the participants would prefer AI assistance over humans as financial advisors or tax preparers.

Artificial intelligence is a human right  
There is an interesting view point being discussed globally is, similar to basic human rights such as freedom of expression, right to democracy, right to privacy, Freedom of belief and religion, right to equality before the law, is Artificial Intelligence a human right? In this article, different opportunities and challenges are been discussed. A lot of brainstorming and deliberations need to be carried out to do research and come up with a new theory.

#### Conclusion

Human Intelligence is about adapting to the new environment and it is a combination of several cognitive processes. Humans use stored information, observations, information stored in the memory and thinking whereas, robots having artificial intelligence are using the built-in instructions and fed in data. Using Artificial

intelligence scientists are trying to design machines which can mimic human behavior. Comprehensive implementation of AI may not be possible due to several differences between a computer and the human brain.

Artificial Intelligence will unquestionably make human's life more convenient in the near future. AI systems will evolve over the period of time and will be more useful. It seems impossible to completely replace human resource by artificial intelligence. Use of technology is in full swing and AI is advancing at a rapid rate however it is a challenge to define and measure the autonomy of AI to be considered as threat to human being.

Coexistence of human intelligence and artificial intelligence is the key to sustain the global dynamic, technologically advanced environment. Making use of AI systems, humans can grow and achieve greater heights but in some of the fields such as providing services to consumers human intelligence and human touch cannot be replaced.

#### References:

Definition of ARTIFICIAL INTELLIGENCE. (2019). Retrieved from <https://www.merriam-webster.com/dictionary/artificial%20intelligence>

Artificial intelligence. (2019). Retrieved from [https://www.sciencedaily.com/terms/artificial\\_intelligence](https://www.sciencedaily.com/terms/artificial_intelligence)



gence.htm

Technology and Human Rights: Artificial Intelligence | Business & Human Rights Resource Centre. (2019). Retrieved from <https://www.business-humanrights.org/en/technology-and-human-rights-artificial-intelligence>

Costly, A. (2019). Natural Rights - Constitutional Rights Foundation. Retrieved from <http://www.crf-usa.org/foundations-of-our-constitution/natural-rights.html>

"All men are by nature equally free and independent, and... (2019). Retrieved from [http://articles.orlandosentinel.com/1987-08-16/news/0140110039\\_1\\_free-and-independent-bill-of-rights-george-mason](http://articles.orlandosentinel.com/1987-08-16/news/0140110039_1_free-and-independent-bill-of-rights-george-mason)

Artificial vs Natural Intelligence – Becoming Human: Artificial Intelligence Magazine. (2019). Retrieved from <https://becominghuman.ai/artificial-vs-natural-intelligence-626b6c7addb2>

Morsink, J. (1999). The Universal Declaration of Human Rights. University of Pennsylvania Press. ISBN 978-0-8122-1747-6.

Artificial Intelligence vs Human Intelligence - 5 Useful Comparison. (2019). Retrieved from <https://www.educba.com/artificial-intelligence-vs-human-intelligence/>

Human intelligence | psychology. (2019). Retrieved from <https://www.britannica.com/science/human-intelligence-psychology>

Latonero, M. Governing

Artificial Intelligence: Upholding Human Rights & Dignity.

AI in India: A Policy Agenda — The Centre for Internet and Society. (2019). Retrieved from <https://cis-india.org/internet-governance/blog/ai-in-india-a-policy-agenda>

How artificial intelligence could be violating our human rights. (2019). Retrieved from <https://www.independent.co.uk/lifestyle/gadgets-and-tech/artificial-intelligence-ai-human-rights-data-protection-privacy-algorithms-gdpr-discrimination-a8563341.html>

The relation between AI technology and the GDPR is multidimensional. (2019). Retrieved from <https://www.capgemini.com/2018/11/ai-and-the-janus-face-of-the-gdpr-chance-or-challenge/>

Brown, C. (2019). How Artificial Intelligence Could Harm Human Rights. Retrieved from <https://rightsinfo.org/rise-artificial-intelligence-threat-human-rights/>

www.pwc.in. (2018). Artificial intelligence in India – hype or reality Impact of artificial intelligence across industries and user groups. Retrieved from <https://www.pwc.in/assets/pdfs/consulting/technology/data-and-analytics/artificial-intelligence-in-india-hype-or-reality/artificial-intelligence-in-india-hype-or-reality.pdf>

\*\*\*