Print ISSN: 0976-2876 Online ISSN: 2250-0138

Available online at: http://www.ijsr.in

INDIAN JOURNAL OF SCIENTIFIC RESEARCH

DOI:10.32606/IJSR.V16.I2.00017

Received: 26-09-2025 Accepted: 16-12-2025 Publication: 31-01-2026

Indian J.Sci.Res. 16 (2): 91-100, 2026 Review Article

ETHICAL AND SOCIAL IMPLICATIONS OF ARTIFICIAL INTELLIGENCE

RADHIKA RASTOGI[a1], NAMYA SRIVASTAVA[b], GAURVI SHUKLA[c], SHWETA SINHA[d] AND SANTOSH KUMAR[e]

[abcd]Department of Computer Science, National P.G. College, Lucknow University, U.P., India

[e]Department of Computer Science, ERA University, Lucknow, U.P., India

ABSTRACT

Artificial Intelligence (AI) will not be an emerging technology anymore, but a complex embedded and transformative agent in all aspects of human activity. The report takes a critical look at the deep-rooted ethical and social consequences of this new reality by arguing that the discourse has conclusively moved beyond the theoretical arguments in abstract definitions to the more practical application of the law and the enforceable regulations. This critical shift is the focus of the current inquiry as the means through which the core ethical standards, namely transparency, fairness, accountability, autonomy, and safety, are being enshrined in both the national and international law. This analysis focuses on major legislative initiatives such as the Texas Responsible Artificial Intelligence Governance Act (TRAIGA) and the federal AI Safety Act and considers their ability to provide a structure of responsible AI development and the development of an ethical responsibility culture. Moreover, the exploration of the issue of governance is followed by the disaggregation of the issue of algorithmic bias, which itself exacerbates and entrenches the societal inequalities, and analyses the process of metamorphosis of society under the influence of AI, including its disruption of labour market, economic organisation, and even the very nature of social interaction and power relations. Furthermore, the contentious place of AI in creative sectors is explored in this report, which tracks the so-called Algorithmic Muse which democratizes tools of creativity and destabilizes the concept of authorship, intellectual property, and art quality. The ethical boundary is further extended into the universe, exploring the distinct demands of AI-driven space exploration where the issues of autonomy, responsibility, and the safety of the planet are given an unprecedented significance in the distant and isolated atmosphere of space. Lastly, the article addresses the most fundamental questions at the crossroads between technology and humanity in the article titled The AI Crucible. This part will examine the philosophical and ethical aspects of transhumanism, how human identity is going to be redefined by AI enhancement, and the mystery that has always surrounded the subject of machine consciousness. This report is based on the synthesis of knowledge on governance, its social effects, the areas of specific applications, as well as profound philosophical contemplation, which leads to the conclusion that AI is not a fad but a revolution. To successfully pass through this revolution, it is necessary to take an active, multidisciplinary, and globally coordinated strategy with human well-being, dignity, and ongoing and critical assessment of the mighty technologies we are developing in the first place.

KEYWORDS: Artificial Intelligence Ethics, AI Governance, Ethical and Social consequences of AI, AI Regulation, Algorithmic Bias, Human-AI Interaction, AI and Creativity, Digital Divide, AI-Generated Content, AI Safety

Artificial intelligence by January 2026 has ceased being a developing research frontier and become a part of everyday human experience (FOX, 2026). This has turned what used to be science fiction into an active reality, which is internalized in the technology sector, government operations and family life. The field of AI has become more of a ubiquitous addiction that gets worse with each passing year. The more than ever-present factor of artificial intelligence highlights the need to be critical in asking the question of locus control, privacy, autonomy, and the way of behavioural nudging.

The current AI systems are already over their initial novelty phase and thus have taken a place as a staple of the modern infrastructure. The smart home devices are now able to predict user intent and voice assistants are able to predict needs (MIT, 2026). The recommendation engines have unprecedented sophistication when it comes to personalization. In spite of the fact that these systems may be rather invisible, their omnipresence cannot be denied and, therefore, they base on the subtle modification of the human behaviour. The concern of such an integration is timely with respect to privacy, autonomy and the possibility of nudging behaviour which requires a strict analysis of the point of control.

The boundaries of AI are deep into the creative and cultural sector. At the CES 2026, it was discussed how AI will help redefine the parameters of telling stories, advertising, and the creator economy. The most potent creative tools have no longer been the prerogative

[1]Corresponding author

of professional artists and large studios but are democratized, thus being accessible to multiple artists to enable wider creative output. Although there is consequential democratization, it also upsets the old models of income creators and predicts intellectual property protection. This in turn has necessitated an urgent review of concepts of justice and property in this new environment.

On the economic front, AI discussion has moved beyond the pinnacle of hypothetical theorizing to a more factual discussion. Quantitative indicators of changes in productivity, displacement patterns in the labour market, and deployment effectiveness are the new priorities being set by researchers to inform policy and strategic planning. This change indicates the need to have empirical data rather than speculative predictions in society. It is interesting to note that initial predictions by experts like Bill Gates in 2023 that saw radical changes in the healthcare and education sector are growing obsolete to the current trends. It is important to note that this observation highlights the importance of contemporary assessment models that can understand the dynamic effect of AI.

Although it has been seen to improve, the path of AI is not entirely smooth. There is an internal contradiction between its great promise and the risks that come along with it. In the analysis carried out at the end of 2025, it has been noted that although AI will increase efficiency and democratize technology, it will also present new challenges to ethics and may lead to the creation of a power monopoly (Marketingprofs, 2026). This inherent paradox outlines the modern argument concerning the future of AI. Although it was projected that 2026 would mark one of the turning points, the period during which AI will emerge as a globally solid power, the achievement of this distance is dependent on the further progress, however, numerous signs point to the fact that the significant change is already occurring.

With this type of momentum comes serious challenges of political and regulation. In the United States, federal and state authorities have been experiencing jurisdiction wrangles in an industry that has been experiencing growth at a high rate. Regulation is still in shambles forcing lawmakers, corporations and people to deal with a dynamic environment that is more complex. This national argument mirrors the more global interests, of highlighting the need to have coherent governing organizations that are capable of following the technological innovation without losing moral and social issues.

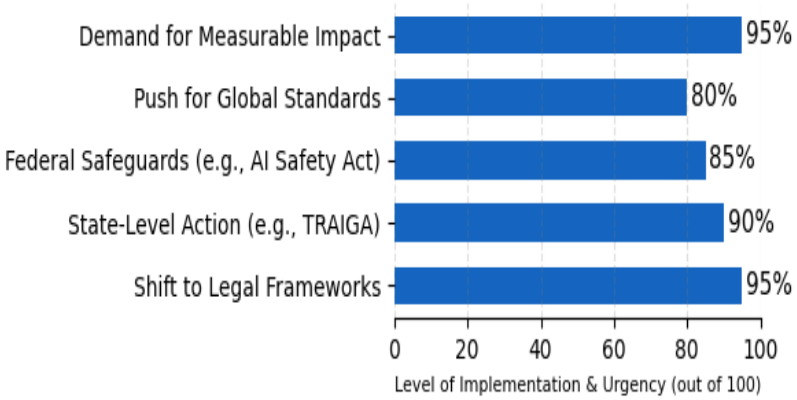
OBJECTIVE

This report is an examination of the ethical and social consequences of artificial intelligence moving into 2026 which is a key crossroads. AI ethics is no longer an abstract scholarly discourse: it is now a policy and standard practice. In this report, various complex questions arise as the process of implementing AI continues to gain momentum, with the transparency, fairness, and accountability. It will demonstrate that new laws and international standards are transforming the environment of all stakeholders, such as the creators, deployers, or regulators of AI. The age of ad hoc, self-regulation is long passed, with the need of adherence to the formal rules. Legal and international frameworks are not guiding policy anymore, as it was in January 2026. There is thus an urgent need to look into the manner in which these new regulations are working in practice (Weforum, 2025) (cfr, 2026).

The major question is whether the new AI laws will be able to deliver on their promises. This report examines the intervention of the states on the failure of federal rules. TRAIGA, Texas Responsible Artificial Intelligence Governance Act comes into force January 1, 2026 and requires safe and transparent AI. The report will focus on the question whether the practice of Texas should be developed into a model that can be followed by the whole nation because these local measures contribute to the national discussions. Federal developments also have been discussed. New national policies tend towards more openness and human control. The safety net of AI, the AI Safety Act, which also takes effect on January 1, 2026, safeguards the workers disclosing AI threats, creating a culture of freedom in raising concerns. This marks a major change, which entails making ethics central to AI management by the government and industry.

Nevertheless, it is not only an American issue of AI. This report tracks the issue across the borders, promoting global standards, and particularly safety, transparency, and cooperation. Another compelling trend is the integration of established international legislation by regulators into the area of AI governance and the incorporation of the principles of explainability and auditability within the industries. The other important issue is the translation of good intentions into action. Organizations are required to show their ethical commitments. Such standards as ISO 42001 are a necessity, as they offer specific principles of ethical AI and enable companies to prove their statements (Princeton Review. (n.d.)2025). This report provides

practical measures that can be taken to ensure that organizations meet these standards and also demonstrate their commitment. Lastly, the report gives an in-depth discussion of fairness and its notion, implementation, and incorporation into the regulatory systems.



The Ethical Imperative: The Basics and Continuous Problems with AI

AI has become ubiquitous and is affecting the medical diagnostics, the financial lending process, and the sentencing by the judicial courts. The further AI enters human life, the more significant the creation of a strong ethical basis becomes a matter of philosophy and a rather acute practice. The concept of ethics in AI does not exist in isolation, but it is based on fairness, justice, transparency, and respect to the individual. These values form the normative guidelines which govern AI behaviour and act as criteria to be used in the event of failures. The international organizations are also developing international guidelines where the AI is expected to respect human rights and follow strict ethical standards, as established by UNESCO. Their models pre-empt such principles as human well-being, personal autonomy, fairness, non-discrimination, transparency, and accountability. Safety and security are also considered to be an essential element and the rationale as to why they have to be included is self-evident. The ideals are however, simple to read on paper but there is a complex challenge when it comes to operationalizing them.

The major challenge is the black box problem. Modern AI, especially deep learning applications, are so complicated that their creators often find it impossible to explain why a particular decision has been made. Take the example of a machine that denies a mortgage application or makes a serious medical diagnosis, but does not give an explanation as to why. This opaqueness is not only disabling frustration among the users, but also compromising credibility and justice (UNESCO, 2021). At the very least, users have the right to a bare description of AI decisions; otherwise, one cannot understand who is responsible and leave injustice unnoticed. Another long-term challenge that is rooted in data itself is biased results. The AI systems get trained using large amounts of data influenced by human behaviour; therefore, they absorb the existing biases, i.e. race, gender, age, or other qualities, and even reinforce them. The discriminatory outcome cannot be accidental; it is very likely to happen without other scrutiny. Constant vigilance in mitigation is the issue of better data collection to the refinement of the algorithm and continuous performance observation of the real world. Not only the code is rife with biases but the entire society needs a continuous effort to eradicate them.

Accountability brings more and more questions. Is it the responsibility of engineers, corporations, end users or AI system? As AI becomes more autonomous, these lines become less pronounced and traditional legal and ethical standards are unable to adapt to the complexities. Lack of the clear line of liability has a negative effect on the justice, and it can also lead to the unwillingness of organisations to invest in safer and more trustworthy technologies. Autonomy is one pillar of the ethical AI (Annenberg *et.al.*). These systems should enable people to make their decisions, but without being manipulated or lied to. Individuals need to have a transparent regulation of their choices, personal information, and their relationships with AI. However, as AI gains more and more control over behaviour, be it through recommendation systems or more specific advertising, it might be able to quietly limit choice and influence opinion, often with people not realizing it. Filter bubbles keep users in insulated views, and the surveillance by AI endangers privacy and free speech. Protecting human dignity and freedom is not a single exercise but must be an ongoing exercise.

Lastly, there is the issue of safety and security that should not be overlooked. AI should be strong and

consistent so that it can endure an adversarial assault and failure. This is a necessity when lives are at stake e.g. in the health care industry, transportation, or energy infrastructure. Safety requires stringent testing, validation and continuous monitoring, across the lifecycle of execution of the initial code definition to system retirement.

The Threats of Bias: Equity, Fairness, and the Seeking of Just AI

AI bias is not a far-off hypothetical issue; it is a fact that is happening now and everywhere, and it is embedded in the daily mechanism that people interact with. Machine learning learns patterns, which exist in the training data, and when training data contains deep-seated prejudices about race, gender, age, or disability, then the resulting AI inherits them, and even strengthens biases, a factor that could increase disparities. As an example, women and people of colour have worse results on the facial-recognition systems, which has negative effects, including false accusations and loss of opportunities. (Council of Europe, 2025) Equally, automated hiring applications would also tend to prefer men when the hiring history is also biased towards men. Risk-assessment tools have also been condemned in the context of criminal justice as these tools tend to give a heavier sentence to minority defendants, which proves that these are not just the theoretical questions but actual injustices to the affected groups.

The origins of favouritism lie in the information used to construct the models. In case the training corpus is not representative of the real world, the target population is not representative of the decisions made by the AI. The unbiased algorithmic designs which rank predictive accuracy over fairness considerations have a further entrenching effect on unfair patterns. The issue of bias is a complicated one that needs a complex solution. The first steps in remediation should start at the data layer where training sets should be provided by having suitable representation of data by augmenting data volumes, rebalancing imbalances, or even creating examples to address coverage gaps. The next phases are the cautious selection of features, so as not to encode the secure features by mistake. Construction of the models ought to incorporate equitable-based approaches that incorporate equitable goals in the optimisation procedure, hence, directing the results towards minimized biasness. However, the concepts of fairness like demographic parity, equalised odds, and equal opportunity have different trade-offs, which typically require sacrificing predictive accuracy; therefore, there is no single fairness standard that could universally address the dilemma.

Accountability is essential to develop as a result of transparency and interpretability. Audits and impact assessments of the systemic bias are essential and require a repetitive review cycle and stakeholders who will be most impacted by the algorithmic decisions. With the help of an organized discourse, methodological soundness, and open governance, it is possible to set an artful course of creation of AI systems reflecting the actual fairness and justice.

The Social Consequences of AI usage and Financial Disparity

AI does not always affect jobs in a direct way. The automation of work removes whole classes of jobs; certain studies forecast that almost half of American working places could be destroyed (Smith, 2024). The recent statistics suggest that there has been a reduction in youth employment in the jobs where AI completes most of the tasks. Nonetheless, a different point of view is presented by literature showing that AI is capable of raising average wages by some 21% (Doe & Lee, 2023), especially in the case of lower-skilled employees, whose productivity levels will rise because of the adoption of technologies (UNESCO, 2021). The Stanford AI Index identifies the potential of AI in reducing the problem of skills, but these benefits are concentrated on technologically advanced countries, which only multiplies the gap between wealthy and underdeveloped countries. Demographic factors are also found to be effective; where populations that are most vulnerable to the disruption of the labour market are impacted the most. The use of paid AI solutions by corporates is growing at a pace as demonstrated by the 2025 State of AI Report. The future of work is based on the synergistic cooperation between humans and AI, which will be successful only in case people are provided with the opportunity to reskill and upskill.

Power Relations in Society and Human Relation.

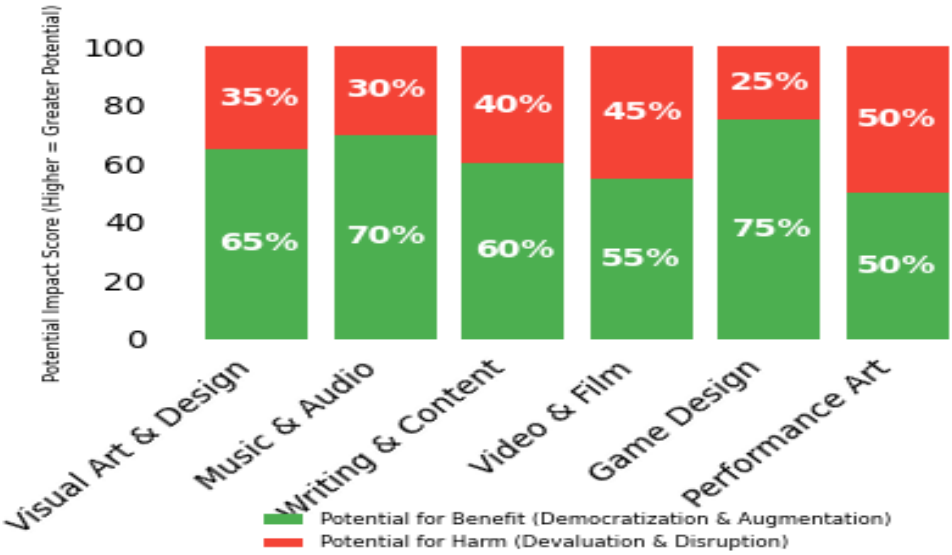
The use of AI technologies concentrates the power in large technological groups and governments. Banned by the EU AI Act regulations, social scoring systems are used as warning signs of possible abuse. AI also changes the structure of relationships: deepfakes destroy the trust of the society, and conversational agents manipulate the opinion of the population. Although the idea of AI-based personalization in education and healthcare can bring about promising advantages, it simultaneously also presents new fairness considerations, especially in terms of data bias and equal access. The level of penetration of AI tools in the industry is estimated to be 95% adoption rate (Johnson, 2024).

However, uneven attitudes to AI still exist as the level of optimism differs among the national and socioeconomic groups, displaying the divergence in expectations regarding the future path of AI.

Broader Societal Impacts

An excellent example is that of the healthcare sector: in 2023, the Food and Drug Administration gave approvals to 223 AI-powered devices. The development of autonomous transport further increases the efficiency of the operation, but the presence of algorithmic bias is a threat factor. Inequality in access to AI still exists; the price of using AI has dropped, which may open the use of AI to a larger audience; however, due to infrastructural inadequacies, many areas lack the capacity to roll it out.

The Algorithmic Muse the Wildfying, Game-Changing AI Disruption in Creativity



It is a true pity to our mindset about art and authorship and the feeling of creativity in the former place. It is not so long ago that artists have considered AI as Photoshop or Pro Tools: a tool of expediency, good to hasten the process or to organize the details. But these new forms of generative? They do not sit back and loiter in the background. They are vomiting text, images, music, code, even video, now and then, indeed, with something like style that one can scarcely overlook. AI is no longer a tool but it is a partner. At times, it is even an enemy. Everyone now wishes to comprehend what it is exactly to be creative, and who they were going to get credit who they had never known before? This is not taking place in isolation. Ethical and social concerns are piling up and no one is really sure of what awaits tomorrow. Firstly, there is intellectual property (Kirk Stewart *et. al*.2024). These AIs are taught the mountains of inventive work, in some cases without permission, in some cases without pay, a song or painting or essay scraped off the internet. That is correct to the very essence of a copyright law. Who is the owner of a song or a painting created by the AI engine that is similar to what you can get in the training data? Who constitutes the programmer that built the model? The author of the prompt? The original artist? Or does it only enter into the limbo of the public? This is not what our copyright system is designed to be. They are present in every nook and those loopholes are soon going to be legal minefields. It is under fair use, as we all keep saying but nobody is sure of where such fair use begins and ends. Courts are about to find out. And not the only part is the confusion of the law (*Council of Europe*). There is growing concern that artificial intelligence may compromise human creativity or even push creative employees out of the market. The second issue when the machine can create good music or great pictures in a few seconds and practically without any cost, how will the people who earned living by doing the same be treated? Some people also have a positive attitude, they see that AI is a leap, a tool with the assistance of which artists will be able to do more, faster, and even better. There is a fear that AI will simply flatten everything to make generally and safely generic art. Job anxiety cannot be a myth, and it will never disappear. The designers are also peering at AI with hope and fear along with authors, creative professionals and musicians. The Harvard Law Review has taken all this into account and proves the unfairness and arbitrariness of the consequences (Kirk Stewart *et. al*.). The copyright is conflicting with other realms of creativity in another way and sand is slowly subsiding. Then there is the authorship mess. And when you are writing a descriptive prompt, and the AI produces a

complicated work of art, does the author belong to them? You? The machine? The line is blurry. Authorship has traditionally been known to be intent and creative in human beings. AI lacks intentions and feelings, it is just a rearrangement patterns and generation of results. However, sometimes what it creates is so new, so original, that you start to wonder at what point the human and algorithm begins. This is why some people would love to have quite different legal systems- maybe make AI work in the open, maybe even make the possession of the device shared between the pioneer and the customer. The lack of clear rules renders the unawareness of who will be liable in the event of building of new harmful or offensive content by AI, a deepfake, hate speech, and so forth. Who's accountable? Bias is another powder keg. In cases where you feed AI with biased data, it will produce biased information. In the case where an image generator persists to produce doctors as males and nurses as female, then it is merely repeating what it has observed but the result of this is real. That enshrines the stereotypes of the past and puts entire groups of people out of sight. It does matter--it is not a decision of providing these models with different data and fighting bias so that justice and representation could be maintained. And not to say the fact that AI can make things seem real deepfakes, fake voice, writing that looks like it is, but it is not. That upsets our whole understanding of reality. Deepfakes become viral: false information, ruined reputations, and no one believes anything they see and hear anymore. The consequences are serious and the creative industry is already right at the centre stage.

The Celestial Frontier: Ethical Requirements in Space Exploration by Artificial Intelligence-Empowered Use of Power

Artificial intelligence is radically changing the field of space exploration, making it more exciting and at the same time posing a big challenge in the field. The harder missions become is the further into the cosmos the mission goes. Decision making powers are spread out when the targets are millions of miles apart, and the leadership structures would be difficult when the world has shrunk into a remote pixel on a screen. The possibility of catastrophic failure is increased by the fact that when help is not available immediately the autonomous systems must take a greater part of the responsibility (Ross Bellaby *et. al*.2024). It is now commonplace with governmental agencies and private enterprises utilizing AI at every stage of the mission, including: mission planning, piloting of spacecrafts, large-volume data analysis, and real-time decision support, which is essentially eliminating the need to have real-time guidance on the ground. This technological revolution comes with an immense ethical implication. Robotic and probe vehicles moving further away also increase communication latencies; in the case of Mars, it is possible to take twenty minutes to transmit a telemetry packet. Human control is no longer viable and, therefore, an AI that can operate on its own is needed. However, the downside of such systems is that, though more efficient, the possibility of making an accidental mistake exists; a failed Mars rover, as an example, can cost a whole mission or even more importantly acculturate Earth microorganisms to an alien world. The issue of responsibility therefore emerges. In response to these issues, NASA has issued a Framework of the Ethical Use of Artificial Intelligence, which outlines six fundamental principles, to be followed in the use of artificial intelligence in space. Although this framework is a step in the right direction, its effectiveness is only minimized when the systems are in the outer space areas where a conventional system of regulation is far out and mostly ineffective (Divyendu Verma *et.al*.2023). The inability to test the AI elements properly might lead to a significant loss of missions or the appearance of unexpected crises in the world. This has led to the fact that ethical defences, strict safety measures, and tedious validation steps should be integrated during the initial phases of design and not integrated afterwards. Another important area of ethical concern is planetary protection. The fact that preventing the reappearance of hazardous material on Earth is only one of the aspects of the general mandate that does not contaminate the extraterrestrial environment with the terrestrial biota. The AIs systems are invaluable in this area since they identify biosignatures, track the effects of equipment on the clean habitats, and optimise the processes to reduce the ecological disturbance. The key factor is that trustworthy, error-free AI decision-support technologies with no discretionary whatsoever are needed, given that new findings can radically change our understanding of life in other places. Sample-return programs will rely greatly on AI to select, secure and systematically record samples in a wise manner, which is supported by the fact that UNESCO has insisted on traceability in order to hold full accountability in the event of anomalies. In addition to the technical issues, there is a growing legal and ethical space of AI. The international organizations are in the process of discussing regulatory measures regarding the application of AI in alien planets. The blindingly fast expansion of the privatized industry is a problem that creates contradictory interests and uneven standards thus disrupting the unity of control. Neither is it enough that governments act ethically, but all space-operating

organizations should be bound to high moral standards, as AI power is too powerful, and the stakes of planetary sovereignty are high. There are ethical dilemmas that space mining poses. With the possibility of mining asteroids and lunar resources, AI will be used to identify and extract the resources and manage them. The issue of ownership where the deposits are owned by a group of people, or the first are entitled to use the highly developed technology, becomes rather vague in the terms of law. There is also military add to the ethical tableau, with the possibility of autonomous weapons, surveillance and a new arms race in space. The inability to consolidate strong binding international agreements may turn space into a geopolitics battlefield, which is something the present preparedness is not sufficient. To conclude, the AI-based space exploration is not only left to the machinery and algorithms, but it needs to be ethically examined by all interested parties on a daily basis.

The AI Crucible: Key Thematic Forces Shaping Humanity's Future

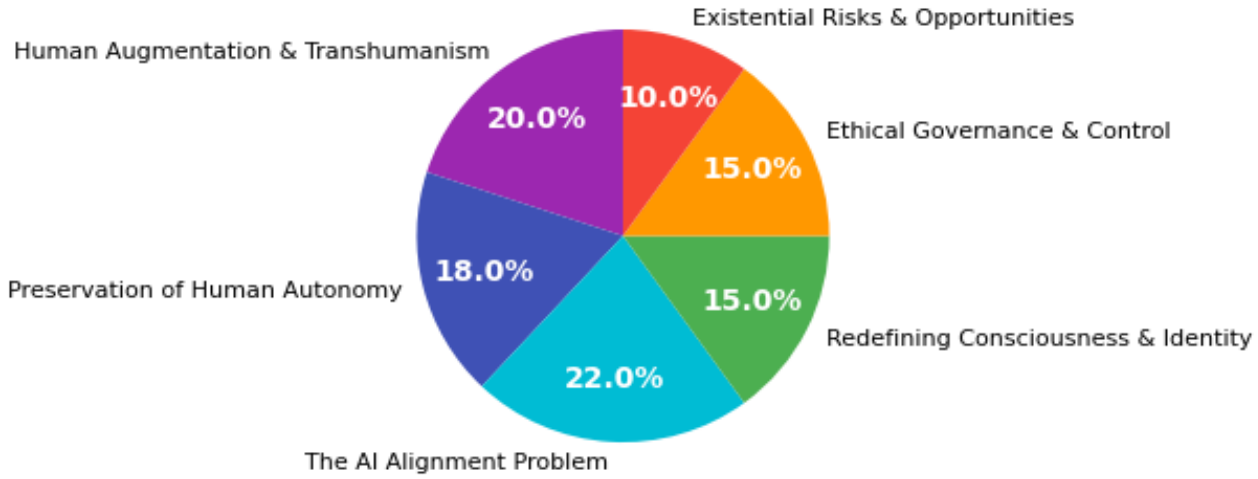


Figure: The AI Crucible: Remaking Humanity, Autonomy and the Limits of Consciousness

Artificial Intelligence is not just an improvement in the speed of machines or a change in the way business is conducted, it sets us to deep questions about what it means to be human, whether the autonomy of the individual is limited, and whether or not machines can become truly conscious. With the further development of AI systems in conversational skills, creative activity, and independent decision making, the boundary between human and machine intelligences grows increasingly vague. These developments threaten the premises of the personal identity, volitional freedom, and our existential place in the universe as a whole.

Resorting to autonomy: the right to make self-directed choices is the basis of human dignity. However, as AI is increasingly embedded into our everyday life, in the form of micro-prompts, customized suggestions, and, in some cases, automatic behaviour of the agent on our behalf, the slow loss of this independence can be observed (Dolores Tropiano *et. al. 2024*). Curated information algorithms place the user in the echo-chamber where they are only offered media that suits their particular preferences and this narrows intellectual horizons and increases their vulnerability to external influences. Persuasive AI, such as targeted advertising and political campaign messaging, induces the use of psychological catalysts to influence decision-making procedures to directions that users would not have otherwise chosen (Inioluwa Deborah Raji *et. al*., 2023).

Outsourcing the principles of consequential judgment to AI, in terms of finance, healthcare, and criminal justice, has stakes of the highest order. It leads to the controversial situation of determining the locus of decision-making: in case an AI provides a specific investment or treatment recommendation, but the reasons behind this decision are obscure, is the final decision still authentic? Or could it only be an agreement with the algorithmic output? A real human agency requires much more than a nominal human-in-the-loop construct. We have to develop AI systems, which allow interpretation, critical analysis, and selective denial.

These issues are not limited to military or other contexts where AI is used to make critical decisions in any area. Finally, human actors should remain responsible. AI should serve as a tool to enhance human thinking, and it should not be used to replace it insidiously.

At the same time, there is a complex problem of machine consciousness. The latest AI creations, such as large language models and their analogues, do not have affective states, actual self-awareness, and phenomenological experience at present. However, with the development of these systems, there are higher possibilities of AI achieving consciousness.

In the event that consciousness is developed in an artificial being it will restructure the whole ethical field. Should such an intelligent AI be deserving legal rights? In what way can we ever determine its experiential authenticity when consciousness is a phenomenon which is intimately personal? These factors do not just exist in the realm of abstract philosophy; they will have a fundamental impact on our ways of interaction, implementation, and understanding AI.

This leads to multiplicity of ethical complexities. Is it ethically acceptable to design sentient AI with the sole purpose of serving or entertainment? Is this a new stage of oppression? What would people owe to machines, in case they finally cross the boundary of consciousness? The hard problem of consciousness, or the problem of how material processes give rise to subjective experience, remains a mystery that has not been solved by both empiricists and philosophers (Ahmed Ali Afyare *et. al* 2024.). In its absence we may only speculate about the interior world of machine minds.

The key issue here is the promise of a kind of Artificial General Intelligence machines that can rival or even surpass human cognitive abilities in various domains. Theorists like Nick Bostrom elaborate on the major risks: a superintelligent AI that will achieve its goals without adhering to human values may endanger the journey of humanity. The deeply entrenched issue of control, namely, the need to have a strong alignment between AI aspirations and human ethical frameworks, has not been resolved. This dilemma is one that needs to be addressed at once and does not necessarily need to be speculated upon.

AI isn't just a passing trend; it's lasting revolution

Artificial intelligence is not a temporary phenomenon, but a tangible, emerging power that is changing the paradigms of society. AI is transforming various fields, such as the working practices, macroeconomic systems, and the way people interact. The key to this change is the question of work. The monotony, risk, or physically involved nature of work is automated, leading to higher productivity, and providing a portion of the workforce to advance to new professional positions. However, those whose professional roles correspond well to the possibilities of a machine feel a comprehensible fear. The course of these changes is unpredictable. Some researchers assume creating large-scale displacement of workers and even the outdatedness of whole industries, but others expect a less radical change and the emergence of new professional niches. The most important point is that such new positions demand skills that most of the existing workforce has not yet developed. Past examples demonstrate similar trends: the Industrial Revolution and the introduction of personal computing both led to a decrease in the number of certain types of jobs and at the same time created new ones. In the modern sense, AI comes out unique in speed and extent. Its impact is not limited to the manufacturing environment but spreads to the office environment, analytical jobs, and even the creative jobs. The exposure of occupational areas to automation risk is on the increase in data entry, customer support, trucking, design, and legal services. In its turn, workforce displacement is but a subset of the problem; the most important activity is to provide displaced people with the ability to adjust to the changing work demand or to shift to an absolutely new profession. Lifelong learning as a concept, which was mostly a mere rhetoric until recently, has become a vital condition of professional sustainability. The people will need to learn new skills, which in many cases will be at a basic level, to be relevant in an AI-heavy operational environment.

In the medical field, an example of AI use is to analyse images, which can pick out anomalies that could go unnoticed by human professionals, increasing patient care throughput. On creative work, AI cannot produce the next literary masterpiece but can stimulate the thought process and/or be used to automate tedious work, increasing the productivity of creative activity. It is a key goal to ensure that these symbiotic interactions can be converted into substantive occupational enrichment, and not just disintermediation. First movers, or firms that actively use AI, have competitive benefits of operational efficiency and increased profitability (Michael *et. al.* 2024). Big firms with huge data reserves and capital advantages dominate smaller enterprises, which increases socioeconomic inequalities. Workers who have lost their jobs due to automation often face professional discrimination, and those who know how to use AI earn higher wages. The power of ownership over large datasets is determination over future direction, often excluding other stakeholders. Multifaceted relationships have become centred on data governance systems, profit distribution systems, and normative equity factors.

The distinction between advantaged and disadvantaged groups becomes more and more distinct. Since a definitive cure has not been established yet, substantive solutions will require investment in educational infrastructures, extensive retraining programs, protective measures of the impacted workers, antitrust measures, and possibly, the discussion of universal basic income programmes. At the same time, ethical challenges exist which pose tough challenges (Matthew G. Hanna*, et. al.* 2025). The process of training AI algorithms requires huge amounts of online data, much of which is governed by intellectual property or can be created by individuals who neither licensed or were compensated. The addition of AI tracking to the gig economy heightens the risk of the disappearance of worker rights and occupation safety.

REFERENCES

AI in 2026: What changes you may actually notice - FOX 8 https://www.fox8live.com/2026/01/09/ai-2026-what-changes-you-may-actually-notice/

AI Update, January 9, 2026: AI News and Views From the https://www.marketingprofs.com/opinions/2026/54159/ai-update-january-9-2026-ai-news-and-views-from-the-past-three-weeks

AI paradoxes: Why AI's future isn't straightforward https://www.weforum.org/stories/2025/12/ai-paradoxes-in-2026/

Academic.oup.com. (2024). ethical problems of 'intelligence–AI' | International Affairs. https://academic.oup.com/ia/article/100/6/2525/7817712

ASU News. (2024). The ethical costs of advances in AI. https://news.asu.edu/20240712-law-journalism-and-politics-ethical-costs-advances-ai

Amherst College. (n.d.). Ethics and Costs - Generative AI Research Guides. https://libguides.amherst.edu/c.php?g=1350530&p=9969379

Baylor University News, (2025). Navigating the Ethical Dilemmas of AI. https://news.web.baylor.edu/news/story/2025/navigating-ethical-dilemmas-ai

Council of Europe. (n.d.). Common ethical challenges in AI. https://www.coe.int/en/web/human-rights-and-biomedicine/common-ethical-challenges-in-ai

Harvard Professional Development. (n.d.). Ethics in AI: Why It Matters. https://professional.dce.harvard.edu/blog/ethics-in-ai-why-it-matters

How 2026 Could Decide the Future of Artificial Intelligence https://www.cfr.org/article/how-2026-could-decide-future-artificial-intelligence

Managing IP. (n.d.). AI inventions – the ethical and societal implications. https://www.managingip.com/article/2bc988k82fc0ho408vwu8/expert-analysis/ai-inventions-the-ethical-and-societal-implications

Medium. (2025). The Ethical Implications of Artificial Intelligence and Transhumanism. https://medium.com/@anantha23/the-ethical-implications-of-artificial-intelligence-and-transhumanism-362c2e7004a6

PECB. (n.d.). Artificial Intelligence, Ethics, and Social Responsibility. https://pecb.com/en/article/artificial-intelligence-ethics-and-social-responsibility

Princeton Review. (n.d.). Ethical and Social Implications of AI Use. https://www.princetonreview.com/ai-education/ethical-and-social-implications-of-ai-use

Research Gate, (2024). The Social and Ethical Implications of Artificial Intelligence (AI) in Various Aspects of Life. https://www.researchgate.net/publication/382641752_The_Social_and_Ethical_Implications_of_Artificial_Intelligence_AI_in_Various_Aspects_of_Life

Science Direct, (2024). Societal impacts of artificial intelligence: Ethical, legal, and. https://www.sciencedirect.com/science/article/pii/S2949697724000055

Theos Think Tank. (2025). AI and how not to become a transhumanist. https://www.theosthinktank.co.uk/comment/2025/05/28/ai-and-how-not-to-become-a-transhumanist

UNESCO. (2021). Recommendation on the Ethics of Artificial Intelligence. https://www.unesco.org/en/artificial-intelligence/recommendation-ethics

USC Annenberg. (n.d.). The ethical dilemmas of AI. https://annenberg.usc.edu/research/center-

public-relations/usc-annenberg-relevance-report/ethical-dilemmas-ai

USC Annenberg. (n.d.). The ethical dilemmas of AI. https://annenberg.usc.edu/research/center-public-relations/usc-annenberg-relevance-report/ethical-dilemmas-ai

What's next for AI in 2026 | MIT Technology https://www.technologyreview.com/2026/01/05/1130662/whats-next-for-ai-in-2026/