Ethical AI for Inclusive Economic Growth

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With artificial intelligence (AI) increasingly infiltrating multiple industries, the economic benefits are countered by concerns about fairness and inclusion. This paper covers the implications of the integration of AI in economic development and stresses the importance of leveling the field if Smart City and Blockchain digital disruptions are to work for all people in the Digital Age. We examine the ethical structure underpinning AI deployments and discuss use-cases of successful and failed implementations. To this end, we adopt qualitative methodologies to enumerate the central issues and suggest ways in which an inclusive AI ecosystem can be nurtured. The results highlight the need for stakeholder involvement, regulatory pathways, and ethical principles to address systemic imbalances and establish more equitable systems in the AI era.
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1 Introduction

Artificial intelligence (AI) is fundamentally transforming economies across the globe, enabling new industry opportunities for growth and innovation. Yet the fast pace of development of AI technologies poses serious ethical questions that need to be resolved in order to distribute the advantages of these systems properly throughout society. The growing inclusion of AI systems in economic development plans has raised concerns about bias, accountability, and inclusivity. This paper seeks to investigate the ethical aspects of AI utilization in promoting economic development, with special attention to the importance of inclusive practices to prevent the risk of reinforcing existing inequalities.

Background

Unleashing the power of AI can be seen across industries, from healthcare to transportation, to financial services and agriculture. AI can change the way organizations work, altering everything from the ability to learn to the power to produce to the strength of the decision-making process. AI has the potential to contribute an estimated $13 trillion to the global economy between 2018 and 2030, the impact will be found increasingly in productivity and efficiency [1]. In developing countries, AI is the answer to longstanding challenges related to food security, access to healthcare, and educational disparities. As an example, in precision agriculture AI-based system can help in improving farming practices leading to yield increase and to the preservation of resources (e.g., [2].

However, even as we make progress with these new technologies, we see that the deployment of AI systems reflects and can even amplify some of society's existing biases. Studies show that AI algorithms have the potential to discriminate, especially towards vulnerable groups [3]. These biases can come about because of biased training data, resulting in outputs that unfairly impact low-income communities and people of color. This provokes pressing ethical questions of fairness and accountability related to AI technologies, which calls for a deeper scrutiny of their consequences for economic development.

Ethical Frameworks in AI

To find one's way through the ethical terrain of AI in economic development, several ethical frameworks have been suggested. For example, utilitarianism stresses that maximization of general happiness and reduction of harm [4]. In the world of AI, this approach translates to: values should steer the development of AI to those outcomes that are most beneficial to the maximum number of people.

In order to argument their values (and majority rules) people sometimes forget that their own rights and needs are not the only rights and needs out there and sum themselves to accepting some form of "minority right (or need) dictatorship" to believe that they can ignore a minority's right (or need) no matter what efficiency gains as a whole it would bring.

In contrast, deontological ethics is typically characterized as the one based on obeying one's moral duties and principles, no matter the consequences [5]. This model highlights the centrality of the protection of individuals' rights and the ethical obligations of developers and institutions in that AI does not harm human dignity. One such principle, fairness, is at the heart of the deontological arguments, this demanding that algorithms generate equitable outcomes when making decisions.

A third viewpoint arises from virtue ethics, that focuses on the character and intentions of those who create and apply AI systems 6]. This will help promote the development of qualities such as empathy, fairness and transparency, which are critical for informed and ethical decision in AI applications.

The Role of Policy and Regulation

Good governance is a prerequisite for fostering ethical AI application through economic development. Policy makers have a fundamental role in defining the regulatory landscape for accountability, transparency and fairness of AI systems. The European Union's General Data Protection Regulation (GDPR) is a key example of regulation in the digital age intended to protect individual interests [7]. The GDPR is very much focused on the issues of informed consent, data protection and the right to explanation and gives a strong framework to apply in case of ethical concerns related to AI technologies.

In addition, developing what the field calls "AI ethics" can assist institutions in the challenges posed by bringing AI into reality. An initiative on ethics of autonomous and intelligent systems, established by the IEEE, has drafted ethical principles to which AI development and use should adhere [8]. These principles reinforce our commitment toward transparency, accountability, and inclusivity as a basis in moral reasoning behind AI applications.

The Importance of Inclusivity in AI

Inclusiveness has been a key topic in discussing the ethical aspects of AI in economic development. With AI becoming increasingly mainstream, it is important that all groups of society have access not just to its benefits, but also to its implementation, especially those who have been left behind in the past. The World Economic Forum has written that achieving global goals, such as developing countries out of poverty, resolving inequality and tackling climate change requires inclusive AI practices [9].

In order to be inclusive, diverse actors should be involved in the construction and application of AI systems. And not just officials and industry stakeholders, but community advocates, civil society organizations, and people whose lives are affected directly by AI technologies. Such collective efforts can build AI systems that consider the needs and views of all users, yielding more fair results.

Potential Risks of AI Deployment

AI as a driver of economic growth, it has the potential to be an engine of economic growth, but it is not risk-free to deploy. One of the biggest worries is that worker will find themselves out of a job, thanks to automation. According to a recent report by the McKinsey Global Institute, as many as 800 million jobs may be eliminated worldwide by 2030 because of automation [1]. This may disproportionately hurt the low-income workers and people working in industries susceptible to automation, worsening the existing social inequality.

Furthermore, dependence on AI systems may result in a dehumanization of the decision-making process. With missions being increasingly automated, there is a concern that ethical and moral aspects may become secondary to convenience and commercial expectations. Underlining the need for strong oversight to ensure human values are at the forefront in applications of AI.

Objectives of the Study

This study seeks to explore the ethical dimensions of AI in the context of economic development through the lens of inclusivity and equity. Through reviewing literature and examining case studies, we aim to highlight main problems related to them and offer practical suggestions to the stakeholders in AI governance. Specifically, this study will explore:

- The moral compass with which AI is being built and deployed.
- AI and the marginalization of communities and further race and class disparities.
- What policy and regulation can do for ethical AI.
- How to promote inclusivity in AI technologies.

In this study, we aim to participate in this continuing discussion in the discourse on ethical AI and economic development and contribute to a vision of a fairer and just future.

2 Literature Review

In the past few years, the relation between ethics, artificial intelligence (AI), and economic development has been increasingly studied academically. This paper provides a synthesis of major themes and findings in existing research, presenting opportunities and challenges of using AI for inclusive economic growth. We look at moral theories, how the rise of the divisions will affect the wider world, the role of regulation, and why diversity is essential for AI to benefit all.

Ethical Frameworks for AI

Ethical approaches provide grounding with which to situate AI morals. Utilitarianism, deontology, and virtue ethics all provide different viewpoints on how we can make sense of the ethical considerations of AI in economic development [4].

- Utilitarianism: This approach focuses on the maximization of global good and the reduction of harm. In the domain of AI, utilitarian arguments claim that AI deployment, if overall good, should outweigh any collateral harm [4]. But opponents argue that utilitarianism can fail to recognize the rights and requirements of minorities, and discriminate against them. An AI-enabled healthcare system may, for instance, focus on efficiency and cost, even if this disadvantages the marginalized populations (unless these needs are considered).
- Deontology: Deontological ethics is centered on duty and obligations, irrespective of consequences [10]. This model highlights the importance of rights and justice at the level of individuals, not just the aggregate effects of those individual rights and justice in the deployment of AI. Deontological perspectives focus on the ethical duty of developers and organizations not to do harm through the development of AI technologies violating human dignity or furthering discrimination. For example, the fair treatment provision implies that while algorithmic decision-making must treat individuals fairly, irrespective of their background, or socioeconomic status.
- Values Ethics: Virtue ethics tunes in to the character and intentions of the people creating and deploying AI systems [11]. This also does incentivize developers for developing virtues like empathy, transparency and accountability that might guide toward ethical decision-making in AI applications. Through an emphasis on the virtues of AI designers, virtue ethics aims to encourage good practice, and to nudge AI technologies into line with human values.

AI and Inequality

One of the most pressing ethical issues around AI is its potential to reinforce current social and economic inequalities [10][12]. Studies have shown that machine learning models can embody discrimination, against vulnerable populations, when unbiased and transparent design and deployment is not prioritized [12][13].

- AI System Bias: Bias can be caused by distorted training data, design choices in the algorithm, and remaining human bias [10][13]. For instance, if an AI is trained on data that skews toward certain demographic groups, it can generate biased

results that unfairly harm disadvantaged groups. In applications ranging from hiring, lending and criminal justice, where AI systems are playing a growing role in decision-making, the implications can be far-reaching.

- Job Dissolution: AI-powered automation may cause job dissolution, especially in jobs with repetitive or routine tasks [12][14]. This risks a disproportionate hit to low-wage workers, and those in industries least resilient to robots, worsening existing inequalities. The IMF has observed that investment in AI is associated with higher real incomes and income share for the top decile, while it declines for the bottom decile [15].
- Access Disparities: Disparities in access to AI resources and digital infrastructure may exacerbate the gap between rich and the poor countries and between the richer and the poorer segments of the societies [11], [16]. After AI, there is more potential of effect on jobs and productive than low-income ones so the percentage of jobs at risk are more from HICs [10]. Equitable distribution of access to AI and digital literacy is needed for inclusive growth.

Regulatory Approaches to AI

Regulation is key to ethical deployment of AI and reduce risks [17][18]. Policymakers everywhere are struggling to put in place a regulatory framework for AI that protects civil rights, balances competing national interests, and fosters innovation at the same time.

- Privacy and Data Protection: The General Data Protection Regulation (GDPR) in the EU is an example of landmark regulations that aim to protect consumer privacy and rights in the digital age [19]. The GDPR attempts to address ethical considerations arising in the application of AI through the lens of informed consent, data protection, and the right to explanation.
- Automated Accountability: Automated accountability mechanisms that require that AI systems (a manager to the employee), are transparent and explainable and have some form of oversight [20]. This would involve expected developer information about the design and training of the AI algorithm and techniques for inspecting, auditing, and mitigating biases in AI systems.
- Sectoral Regulations: Substantial regulatory attempts to target certain areas or applications of AI, such as healthcare, finance and transportation [21][22]. These trade-specific rules may be designed to articulate particular ethical and safety considerations for specific contexts. For instance, regulation around AI in healthcare would possibly be concentrated on prevention of patient safety and data privacy, regulation around AI in finance around fraud and discrimination.

The Importance of Inclusivity in AI

Inclusivity is a recurring topic in discussions dealing with the ethical use of AI in the promotion of economy [16], [23]. As AI technologies increasingly influence our lives, they must be used to benefit all people, including those who are underserved by the public sector and commercial organizations.

- Stakeholder Involvement: It is crucial to engage a wide range of stakeholders in the design and deployment process of AI systems, to ensure that AI technologies are sensitive to the needs of all users [4][23]. This should involve not only policymakers and industry, but also those representing communities, civil society and affected citizens themselves. The inclusive method or the collaborative design can help develop AI systems having the views and needs of users from across the board, and hence yield more fair outcomes.
- Education and Skills: Investing in educational and training programs to raise digital and AI literacy is important to provide individuals with the opportunity to engage with the AI economy [11][22]. Such measures range from making education materials and educational pathways available to communities which have not been considered to be at the forefront, to furthering the cause of diversity and inclusion within STEM professions.

- Inclusive Design: Inclusion pertains to the development of AI systems that are accessible and usable to all individuals, regardless of ability or background [19][20]. It is largely due the needs of the elderly, those with disabilities and different cultures -- many of whom have low digital literacy.

AI in LICs and EMs

AI has a great potential to advance in low-income countries (LICs) and emerging markets (EMs) as well as its challenges [22]. They are challenged with their own set of constraints including the lack of technological infrastructure, absence of trained professionals and lack of investment in AI research and development.

- Prospects: AI could help increase farm level production and productivity through precision farming, human health productivity through predictive analytic health service delivery and education productivity via personalized learning platforms [22][24]. AI, moreover, can help in disaster management, supply chain optimization, and financial inclusion, by enabling loans and banking to unprivileged people [14][22].
- Limitations: AI adoption is not free of risks, especially when it touches on personal rights or may be misused [22][24]. There are fears of job displacement as automation takes over manual labor and data privacy and security concerns, particularly in countries with lax rules and regulations.
- Regulation: A balanced and fostering regulation is a prerequisite to be able to seize the benefits of AI technologies while avoiding their risks [22][25]. This includes the establishment of a strong legal environment for data protection, data security and responsible AI use as well as education and training to come up with a workforce that can develop, manage and regulate AI technologies.

The ethical AI for inclusive economic growth literature discusses the complicated and diverse problems of using AI systems responsibly and fairly. By invoking ethical approaches, tackling bias and inequality concerns, pursuing strong regulatory practices and prioritizing inclusion, stakeholders can collaborate to help ensure that AI serves all parts of society in support of sustainable and inclusive economic development.

3 Methodologies

We are going to use a qualitative research methodology analyzing the ethical perspectives of the employment of AI in promoting economic development from the perspective of the inclusivity and equity. This paper used literature analysis and case studies. Such approaches all combine to give a fuller picture of the intricate dynamics involved in the ethical landscape of AI technologies.

Literature Analysis

The first methodological element is to undertake a thorough literature review. This process includes:

- Identifying the Key Themes: An extensive collection of academic papers, policy reports and grey literature exploring the topic of ethical AI, economic development and inclusivity was identified using a structured selection process. Databases such as Google Scholar, JSTOR and IEEE Xplore were used to collect the references.
- Eligibility Criteria: Articles that met the inclusion criteria based on relevance and research questions were included for review and attention was focused on articles covering the ethical frameworks, bias in AI and regulatory approaches, as well as case studies of AI applications in economic development.
- Thematic Coding: An exploratory thematic coding was performed over the corpus of literature which was obtained. Several themes stood out, related to ethical frameworks, the effect of AI on inequality, regulatory measures and the need for diversity and inclusivity. The review under this section helped in developing the theoretical base of AI and also identified the void in the related research where the current research work will address.

Case Studies

The second methodological element is the analysis of individual cases providing examples of AI applied in economic and social education contexts. This process includes:

- Selection Criteria: Conducted a study on the selection of case studies, for how AI technologies have been deployed in different industries, agriculture, health care and finance, etc. The focus was on geographical variety, representing sectors and inclusion of ethical considerations of AI use.
- Outcome Analysis: Each of the cases were reviewed to determine what ethical considerations should be made when deploying AI including the following:
  - Whichever economic reality was achieved by AI compared to existing technology.
  - Discrepancies between demographic groups in access to or benefits from the programs.
  - Ethical implications in designing and deploying AI systems.
- Analysis: The results of the single case studies were compared to find common insights and best practices in relation to ethical AI deployment. This process allowed valuable insights to be revealed that inform future paths to inclusive economic growth.

The following case studies were studied:

Case Study 1. AI-Powered Health Delivery in India: ARMMAN and NITI Aayog

Background: India has several health challenges such as lack of doctors, poor infrastructure, and limited access to care, particularly in rural areas [26].

AI Application:

- ARMMAN: The AI algorithms of this non-profit organization help predict the risk in women dropping out of healthcare programs like mMitra, that delivers critical preventive care information through voice calls to pregnant women and new mothers. Through the identification of risk, ARMMAN facilitates personalized interventions and timely assistance that contribute to better maternal and child health [26].
- NITI Aayog: This public policy think tank is driving AI projects to improve primary care, including early detection of diabetes complications and better eye care diagnostics. AI's capability of diagnosis is then benchmarked with those of retina specialists to demonstrate its potential for being a screening tool [26].

Ethical Considerations:

- Privacy: The protection of patient data privacy is important, especially in a setting where laws governing data protection might not be as robust [27].
- Algorithmic Bias: AI algorithms should be attentively developed and analyzed to avoid exacerbating existing biases in access to care and healthcare outcomes [27].
- Inclusivity: AI should be open and available to everyone throughout the population, including those in distant and underserviced areas [27].

Case Study 2. AI for Sustainable Agriculture: Cereal Farm & Hello Tractor

Background: Agriculture in Africa has its own challenges, like, climate change, unpredictable rain pattern, pest infestations, and limited accesses to the resources and information [28][29].

AI Application:

- Cereal Farm (India): A family farm in India that utilizes AI powered crop advisory app to give weather forecast, planting/harvesting advice, and disease detection/remedy advice. The farm uses this to manage unpredictable weather patterns and bring higher quality crops to market [30].
- Hello Tractor (Sub-Saharan Africa): This platform connects smallholder farmers with tractor owners and employs AI to optimize operations. The machine learning-based services are concerned with tracking the tractor usage, predicting weather and text messaging capabilities in low-connectivity regions [28].

Ethical Considerations:

- Data Ownership: The need to protect and the farmers from technology providers (being not exploited) by the technology providers must be maintained [27].
- Digital divide: Mitigation of the digital divide will play a significant role in ensuring that farmers can access the required technology and infrastructure for beneficial adoption of AI [28].
- Environmental Friendly: AI system should support sustainable farming and avoid having side effect on the environment, such as excessive use of pesticides and fertilizer [29].

Case Study 3. FinTech Ecosystems: AI-Driven Financial Inclusion in Africa

Background: Sub-Saharan is known to have high- proportion of unbanked and underserve population providing an opportunities for the application of AI-driven Fintech solution to support financial inclusion [31].

AI Application:

- Fintechs in South Africa, Kenya, Nigeria and Ghana: These firms are leveraging AI-based solutions to improve operational efficiency and create products and services that serve financial service customers. Today AI is employed in credit scoring, in fraud detection and personalized financial advice [31][32].

Ethical Considerations:

- Bias & Discrimination: Algorithms AIs for credit scoring and lending need to be designed in a way to not reinforce destination biases against women and other disfavored customer classes [27][31].
- Data Privacy: The privacy and security of financial data is important, especially in a scenario where data protection guidelines might be kept lax [27].
- Transparency and Explainability: Financial decisions derived from AI should be transparent and explainable to the users, enabling them the ability to comprehend the decisions and to question them, if necessary [27].

Case Study 4. Responsible AI in International Development: Caribou Digital Case Studies

Background: International Organizations working in development are increasingly using AI to try to solve a diverse range of development challenges in fields such as health, education, agriculture, human-rights, etc. [33][34].

AI Application:

- askNivi: A health chatbot that provides information and support for users [33][34].
- Digital Green's Farmer Chat: A service connecting farmer with advisors, offering advice and information [33][34].
- Plantix app by ICRISAT: A machine learning based mobile app for agriculture which can diagnose crop diseases through images [33][34].

Ethical Considerations:

- Do Not Harm: Organizations should gradually and carefully apply AI, so that it does not harm users or communities [33][34].
- Keep Humans in the Loop: AI systems should involve people in the decision process and not be fully autonomous [33][34].
- Fairness for All: AI systems should be fair for everyone [33][34].

Limitations: Although the present study has used sound methodologies, there are limitations that should be considered:

- Size: Small The qualitative design nature of the study might affect the generalizability of the results. The population size (number of cases and literature for review) may not encompass all the views in the field of AI and economic development.
- Subjectivity: Qualitative studies provide subjective findings, and researchers' interpretations and preconceptions can influence the results.
- Fast-Paced Nature: AI is a fast-moving field and new developments could potentially affect the consequences discussed in this study. Future work needs to be at the forefront of AI technology and the ethical questions it raises.

By using a hybrid approach that includes literature review, and case studies, this paper

seeks to develop an understanding of ethical aspects of AI implementations in economic development. The results will feed back to the current debate on the ethics of AI (machine) learning and advise about means of encouraging the widespread and fair use of AI in practice.

4 Results and Analysis

The review of literature shows a few important results about the ethical consequences of introducing AI in the economic sense. This is a warning that there are very significant consequences for not being active — A warning that can relate to more than just AI: that if we are not proactive, if we want to wait and see, understand, figure things out later, we likely won't have the type of AI that optimizes for growth sustainability and inclusion.

Regulatory Challenges: The absence of unified regulatory regimes appears to present a major obstacle to ethical AI implementation. The analysis reveals that:

- Lack of clear guidelines: The study identifies that clear guidelines that allow for accountability and transparency of AI applications are necessary [35]. The lack of such reparations adds to the ambiguity and significantly burdens entities trying to sort through the ethical mire of AI implementation.
- The Necessity for Flexible Regulations: Laws have to be flexible and responsive to changing AI technologies [36]. Regulatory regimes can be inhibiting to innovation and do not keep up with new ethical dilemmas. The findings indicate that saying no to regulation could be the wrong way to ensure ethical AI, highlighting the potential value of a nimble, principles-based system of regulation.
- Global Collaboration: Since AI technologies are being developed all over the world, all countries will have to collaborate to unify ethical standards and regulations [37]. Cross-border Massification of the digital societal orders patterns emerged from the analysis highlight the requirements for further international cooperation on matters of data governance, algorithmic accountability and cross-border data flows.

Educational Initiatives: There is an agreement that educational initiatives to inform underrepresented communities of the benefits of AI technologies are important. The analysis reveals that:

- Digital literacy: Civil societal knowledge enables people's engagement in the AI economy. The literature stressed the importance of programs that increase digital literacy and offer AI-related skills training for those from underserved communities.
- Ethical Sensitization: Education and awareness towards ethical AI and responsible use of AI need to be promoted [24]. This encompasses training developers, policy makers, and community members on topics like bias, fairness, and transparency in AI systems.
- STEM Education: Supporting STEM education is essential for creating a diverse and inclusive AI workforce [36]. The analysis indicates that encouraging girls and women and underrepresented minorities to pursue STEM education could help to rectify gender and racial differences within the AI field.

AI and Inequality: Review of the literature suggests that AI can also further disadvantage existing social disparities.

- Job Displacement: The adoption of AI-based automation might lead to job displacement, especially for workers with a low skill level [18]. This might disproportionately affect already vulnerable populations, and worsen the chasm between rich and poor.
- Inequality: If AI mostly complements workers with higher earning levels, this may result in a disproportionate increase of their labor income and steepen income inequality [37].
- Differential Access: Differential access to AI technologies and the digital infrastructure may perpetuate disparities between

rich and poor countries and between people of different economic standing [36].

Case Study Findings

The case studies offer specific examples of the ethical challenges and opportunities that come with deploying AI in economic development.

- Agriculture: Precision farming methods that are powered by AI technology have the potential to increase crop productivity and resource efficiency. Some questions have been raised whether it invades privacy, exacerbated small farmer deprivation, and increased dependence on technology suppliers.
- Healthcare: AI can be used to advance diagnostics, treatment, and patient care in the healthcare industry. However, algorithmic bias, data privacy, and fair access to care are all still major hurdles.
- Finance: Financial services like AI can broaden credit and banking for underbanked people. But there are worries about fair and non-discriminatory lending practices, privacy for data, and the potential for financial instability.

AI in LMICs and EMs: The study shows that AI offers great promise to advance the needs of low-income countries and emerging market but has daunting challenges.

- Opportunities: AI can potentially optimize agriculture with precision farming, support health care with predictive analytics, and progress personalized learning platforms in the school system [24].
- Challenges: However, the application of AI can have adverse effects especially when it involves personal rights or can be abused for some purpose [36]. There is also concern about job displacement, especially if certain manual labour activities are replaced by automation, or privacy and security considerations of the data, especially in jurisdictions with weaker regulatory oversight.

5 Conclusions

The introduction of artificial intelligence (AI) in economic development, both among low-income and middle-income countries and amongst high-in-come countries and intended and unintended (and both positive and negative) consequences, raise a variety of multifaceted ethical issues that need to be considered carefully in order to achieve more inclusive and equitable growth. Incorporating multiple perspectives into the development and deployment of such systems is important because it enhances effectiveness and serves the interests of underprivileged communities, which can in turn build trust and lead to more just outcomes. The lack of unified regulatory systems is also a significant challenge; clear, flexible regulations are needed to hold to account, make transparent the research, and to bring fairness in quickly changing scientific advancements. Given the right skills, education and opportunities everyone can benefit from an AI-powered economy, programs to improve digital literacy, and raise ethical awareness among developers will be essential. Further, AI risks adding to existing inequalities such as displacement of jobs and unequal access to technologies, thereby requiring approaches to ensure it works as a force for empowerment, not marginalization. Considering the global challenges posed by AI, international cooperation is necessary for developing standards and regulatory mechanisms that are consistent across the board. We need to prioritize inclusivity and fairness as AI technologies develop; by everyone addressing ethical issues and involving a wide range of stakeholders, we can unlock AI's potential to revolutionize to the way we live and work and achieve an economy that works for everyone, upholding AI as a force for good.

References

[1] J. Manyika, et al., "AI, Automation, and the Future of Work," McKinsey Global Institute, 2017.

[2] H. Huang, A. Qian, and Y. Fan, "Precision Agriculture: A New Approach for Agriculture," Journal of Agricultural Science, vol. 12, no. 1, pp. 1-12, 2020.

[3] A. Obermeyer, A. Powers, E. J. Vogeli, and S. M. Mullainathan, "Dissecting racial bias in an algorithm used to manage the

health of populations," Science, vol. 366, no. 6464, pp. 447-453, 2019.
[4] J. Binns, "Fairness in Machine Learning: Lessons from Political Philosophy," Proceedings of the 2018 Conference on Fairness, Accountability, and Transparency, pp. 149-158, 2018.
[5] J. Himma and H. T. Tavani, "The Handbook of Information and Computer Ethics," Wiley, 2008.
[6] L. Floridi, "The Ethics of Artificial Intelligence," The Oxford Handbook of Ethics of AI, Oxford University Press, 2019.
[7] European Parliament, "General Data Protection Regulation (GDPR)," EU Regulation 2016/679, 2016.
[8] IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems, "Ethically Aligned Design: A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems," IEEE, 2019.
[9] World Economic Forum, "AI for Good: The Role of Artificial Intelligence in Driving Inclusive Growth," 2020.
[10] S. Dalton. "AI's Impact on Inequality." Steering Point Executive Search and Leadership Development, https://steeringpoint.ie/worklife/ais-impact-on-inequality/
[11] G. Houngbo. "Bridging the AI divide: ensuring inclusive growth and job quality." G20 Summit. https://www.globalgovernanceproject.org/bridging-the-ai-divide-ensuring-inclusive-growth-and-job-quality/gilbert-houngbo/
[12] S. Lee. "The Dark Side of AI: Uncovering Social Inequality." Number Analytics, 2025. https://www.numberanalytics.com/blog/ai-and-social-inequality#google_vignette
[13] A. Obermeyer, A. Powers, E. J. Vogeli, and S. M. Mullainathan, "Dissecting racial bias in an algorithm used to manage the health of populations," Science, vol. 366, no. 6464, pp. 447-453, 2019.
[14] D. Tjondronegoro, B. Trojan, and S. Hunter, "Artificial intelligence: A new driver for inclusive growth and development?," Asia Pathways, 2024. https://www.asiapathways-adbi.org/2024/04/artificial-intelligence-a-new-driver-for-inclusive-growth-and-development/
[15] G. Cornelli, J. Frost, and S. Mishra, "Artificial intelligence, services globalisation and income inequality," BIS Working Papers, no. 1135, Oct. 2023. https://www.bis.org/publ/work1135.htm
[16] C. Li, "Opinion: Without inclusive AI, sustainable development is impossible," Emerging Technologies, World Economic Forum. Jan. 19, 2024. https://www.weforum.org/stories/2024/01/inclusive-ai-sustainable-development/
[17] V. Kulothungan, P. R. Mohan, and D. Gupta, "AI Regulation and Capitalist Growth: Balancing Innovation, Ethics, and Global Governance," IEEE Big Data Security 2025 Conference, https://arxiv.org/abs/2504.02000
[18] M. Comunale and A. Manera, "The Economic Impacts and the Regulation of AI: A Review of the Academic Literature and Policy Actions," International Monetary Fund, Working Paper No. WP/2024/065, Mar. 22, 2024. https://www.imf.org/en/Publications/WP/Issues/2024/03/22/The-Economic-Impacts-and-the-Regulation-of-AI-A-Review-of-the-Academic-Literature-and-546645
[19] European Parliament, "General Data Protection Regulation (GDPR)," EU Regulation 2016/679, 2016.
[20] N. Kshirsagar, E. Rokade, and K. Rokade, "The ethics of AI business practices: A Literature Review on AI Ethics guidelines and Governance Principles with reference to AI Technology firms (Business Organizations)," Journal of Marketing & Social Research, vol. 2, no. 2, pp. 645-654, Mar.-Apr. 2025. https://jmsr-online.com/article/the-ethics-of-ai-business-practices-a-literature-review-on-ai-ethics-guidelines-and-governance-principles-with-reference-to-ai-technology-firms-business-organizations--119/
[21] The Brookings Institution, "The Economics and Regulation of Artificial

Intelligence and Emerging Technologies," https://www.brookings.edu/tags/the-economics-and-regulation-of-artificial-intelligence-and-emerging-technologies/. [Accessed: Jul. 23, 2025].

[22] N. Sonder, "Importance, Development and Regulation of AI in Low Income Countries and Emerging Markets," PwC Legal, Apr. 30, 2025. https://legal.pwc.de/en/news/articles/importance-development-and-regulation-of-ai-in-low-income-countries-and-emerging-markets. [Accessed: Jul. 23, 2025].

[23] R. Roseline, S. Oommen, A. K. Kulkarni, G. Kalpana, K. S. Kavipriya, and C. Christy, "AI-Enhanced Platforms for Fostering Inclusive Economic Growth," in Proceedings of the International Conference on Sustainability Innovation in Computing and Engineering (ICSICE 2024), Advances in Computer Science Research, vol. 120, 2025, pp. 100-111.

[24] C. Yuan, J. Tang, Y. Cao, T. Wei, and W. Shen, "The Impact of Artificial Intelligence on Economic Development: A Systematic Review," International Theory and Practice in Humanities and Social Sciences, vol. 1, no. 1, pp. 130-143, Nov. 6, 2024. https://doi.org/10.70693/itphss.v1i1.57.

[25] M. Comunale and A. Manera, "The Economic Impacts and the Regulation of AI: The State of the Art and Open Questions," SUERF Policy Brief, no. 934, Jul. 2024. https://www.suerf.org/wp-content/uploads/2024/07/SUERF-Policy-Brief-No.-934_Comunale_-Manera.pdf.

[26] AI in Global Healthcare: 5 Innovative Use Cases - Providertech. https://www.providertech.com/ai-in-global-healthcare/

[27] ISSP. (2024). Ethics of AI in Public Policy in the Indian context. Indian School of Public Policy. https://www.ispp.org.in/ethics-of-ai-in-public-policy-in-the-indian-context/

[28] Is Artificial Intelligence the future of farming? Exploring opportunities and challenges in Sub-Saharan Africa - World Bank Blogs. https://blogs.worldbank.org/en/agfood/artificial-interlligence-in-the-future-of-sub-saharan-africa-far

[29] How Artificial Intelligence (AI)-Powered Weeding Is Transforming Africa's Agricultural Future. https://www.nepad.org/blog/how-artificial-intelligence-ai-powered-weeding-transforming-africas-agricultural-future

[30] AI for Sustainable Agriculture: 3 Case Studies - Cutter Consortium. https://www.cutter.com/article/ai-sustainable-agriculture-3-case-studies

[31] A Gender perspective on the use of Artificial Intelligence in the African FinTech Ecosystem: Case studies from South Africa, Kenya, Nigeria, and Ghana - EconStor. https://www.econstor.eu/bitstream/10419/238002/1/Ahmed.pdf

[32] AI in Finance: Top Use Cases and Real-World Applications | SmartDev. https://smartdev.com/ai-in-finance-top-use-cases-and-real-world-applications/

[33] Case Studies in the Practice of Responsible AI for Development | Caribou. https://caribou.global/publications/case-studies-in-responsible-ai-for-development/

[34] Case Studies in the Practice of Responsible AI for Development Examples from agriculture, education, health, and human rights - Caribou. https://www.cariboudigital.net/wp-content/uploads/2024/09/cases_responsibleAI4D_web.pdf

[35] J. Bessen, S. M. Impink, and R. Seamans, "Ethical AI Development: Evidence from AI Startups," Brookings Institution, Mar. 17, 2022. https://www.brookings.edu/wp-content/uploads/2022/09/Ethical-AI-development.pdf.

[36] A. Al-Fuqaha, "The impact of artificial intelligence on economic development," Journal of Economics and Business Development, vol. 3, no. 2, pp. 142-155, 2023. https://www.emerald.com/jebde/article/3/2/142/1233575/The-impact-of-artificial-intelligence-on-economic.

[37] K. Georgieva, "AI Will Transform the Global Economy. Let's Make Sure It

Benefits Humanity, "International Monetary Fund, Jan. 14, 2024. https://www.imf.org/en/Blogs/Articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity.

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