

# Examining the Confluence of Artificial Intelligence, Legal Frameworks and Business Ethics: Contemporary Issues and Debates

Lloyd Chingwaro<sup>1</sup>, Cathrine Paada Kwinje<sup>1</sup>, Tafadzwa Moyo<sup>1</sup>

<sup>1</sup>Zimbabwe Open University

Corresponding Author's Email: [lchingwaro@gmail.com](mailto:lchingwaro@gmail.com)

Received: 26 August 2024| Accepted: 28 September 2024| Published: 31 October 2024

## Abstract

Artificial intelligence is influencing how businesses operate and how people live and work in the 21st century. To remain competitive, businesses are forced to integrate AI in their operations or else face relegation. Since many businesses have survival as a common business objective, they are highly likely to adopt AI so that they stay afloat and remain competitive. The advent of emerging technologies on its own presents a new and dynamic business landscape which is complex; there is a need to realign the traditional ethical frameworks and ensure they are in sync with current technological trends. This study lays bare major ethical dilemmas such as algorithmic bias, data privacy, transparency and potential job loss which have sparked debate on the topic of emerging technology adoption, particularly AI and ethics. A systematic literature review is employed in reviewing literature related to AI, legal frameworks and business ethics. Recent incidences documented in literature are examined to illustrate how businesses are navigating consequences of AI adoption. The role of regulators and their influence in shaping legal frameworks is also examined. Results of this study showed that there was a significant need of dynamic ethical guidelines that were readily responsive to the unprecedented pace of technological changes and innovation. Management and those charged with governance need to take a proactive role in designing and implementing dynamic ethical frameworks. For instance, they could adopt strategies such as ethics auditing and the use of an inclusive design process when crafting/ changing ethical frameworks.

**Keywords:** Emerging technologies, Business ethics, Legal frameworks

## Introduction

Generative artificial intelligence, a form of artificial intelligence (AI) that uses machine learning algorithms and neural networks has the ability to generate content such as text, images and videos through prompts (Sengar et al., 2024). Businesses across the world are still looking for means and creating ways to take full advantage of the benefits from AI adoption such as predictive analytics, automation, risk management, natural language processing and robotic process automation (Maddula, 2018). Overall, the fourth industrial revolution (4IR) is transforming and reshaping how economies operate and how businesses generate value. In this regard, some companies are already taking advantage of algorithms to improve predictions, optimize systems and drive productivity (Sheikh, 2020). Emerging technologies such as blockchain, Internet of Things (IoT) and artificial intelligence (AI) are some of the technologies at the forefront of driving these massive changes in business and economies. Apart from reshaping business operations, these emerging technologies are playing an important role of

redefining the nature and essence of work, including even human interaction across the globe (Sheikh, 2020). AI is taking centre stage because of its ability to mimic the human mind through algorithms and data processing (Maddula, 2018). There are massive financial incentives driving AI adoption (Chauhan & Gullapalli, 2021), because of this many businesses are seeking to capitalize on such benefits to enhance process efficiency. Research shows that AI adoption offers massive opportunities for innovation, efficiency and productivity (Bughin et al., 2018; Sheikh, 2020). However, AI adoption and its resultant integration in business processes presents notable ethical dilemmas that must be carefully navigated (Schwab, 2017). Resultantly, this study examines empirical research and theoretical frameworks (Maddula, 2018), to shed light on the confluence of AI, legal frameworks and business ethics. The field of AI ethics in business is complex because of the several types of ethics such as digital, business, machine and artificial (Tlili et al., 2024). To this end, the scope of this study covers AI and business ethics.

Across the globe, AI-driven solutions are increasingly taking centre stage as they are believed to have the capability of enhancing process optimization. AI's widespread adoption is testimony of its necessity in maintaining competitiveness in the highly competitive global market (Brynjolfsson & McAfee, 2014). A report by McKinsey & Company (2020) show that close to 70% of businesses in developing countries have adopted AI in some capacity so as to leverage competitive advantage and operational efficiency. Most research on AI ethics is from the developed world such as the United Kingdom, the United States and China (Tlili et al., 2024). The developed world is taking the lead in AI adoption and integration in business processes. However, this rapid adoption is marred by challenges such as algorithmic bias, transparency and data privacy (Maddula, 2018; Sheikh, 2020; Schiff et al., 2020). The European Union has a General Data Protection Regulation (GDPR) that regulates safeguarding of individual data rights without compromising innovation (Voigt & Von dem Bussche, 2017), as well as the Montreal Declaration for Responsible AI which is responsible for promoting ethical and responsible development of AI (Dilhac et al., 2018). This ensures respect for fundamental human rights, transparency and fairness.

The rate at which AI is advancing is drastic to an extent that the fear of job displacement remains a major concern. The World Economic Forum (2020) estimates that by the year 2025 AI could displace jobs to the tune of 85 million. On the flipside is the anticipation that 97 million jobs should have been created. However, these new roles require advanced skills, adaptability and quick learners. Therefore, the future workforce should be geared up to the new normal of an AI integrated workforce. Training institutions such as universities and colleges should infuse AI adaptability skills in their curricula to nurture a workforce that is fit for purpose in an AI driven job market. Several stakeholders are leading the debate and discussion surrounding AI adoption and ethics, this includes corporate executives, governments, international conferences and workshops (Schiff et al., 2020). In this study, we seek to take a snapshot of the main highlights regarding the intersection of AI, legal frameworks and business ethics so as to provide a glimpse of the implications of AI adoption on legal frameworks and ethical issues in business.

Emerging markets and developing countries face unique challenges in AI adoption. Notable challenges are a lack of infrastructure and relevant legal frameworks to govern AI integration are prevalent (Kabalisa & Altmann, 2021). These deficiencies may lead to a conducive environment for ethical dilemmas such as lack of transparency, data exploitation and inadequate regulatory oversight. However, emerging and developing economies stand an opportunity to accelerate AI adoption and leapfrog traditional development stages as they have

the opportunity to learn from the success stories of developed economies. There is need for collaboration and international support in designing legal and ethical frameworks to support sustainable AI integration to increase the chances of success (Chakravorti et al., 2020). Due to the accelerated pace of AI advancement, there is a need by corporates to design dynamic ethical frameworks that can easily adapt to any changes in AI capabilities. Traditional ethical frameworks are somewhat rigid and could find it difficult to address the complex and ever evolving changes in AI capabilities. It is the duty of management and those charged with governance to take a proactive role in ensuring such flexible and dynamic AI ethical frameworks are present. To ensure compliance with the ethical frameworks, there is need for strategies such as ethics auditing and inclusive design processes. Inclusivity is key because it instils trust and confidence among concerned stakeholders (Floridi et al., 2018). More so, fostering inclusion when designing ethical frameworks ensures design of a comprehensive ethical framework resulting from the cross pollination of ideas from all quotas in the organization. Mittelstadt et al (2016) are of the view that there is need for cross-sector collaboration since businesses are operating within interconnected global ecosystems. Hence, such cross-sector collaborations can assist in the mitigation of systemic risks associated with AI adoption. Researchers are still divided as to when exactly artificial general intelligence will be achieved and its exact impact on society (Sheikh, 2020). Moreover, there are mixed reactions with regards to the emergence of AI with advocates pointing to its potential for economic growth and social benefit, while critics worry about the downside effects such as social, legal and ethical risks (Schiff et al., 2020). This study is motivated by such debates in literature as scholars are still trying to figure out the essence of AI and its impact on businesses and society in general. Resultantly this study seeks to expose the confluence of AI adoption, legal frameworks and business ethics, guided by the following research objectives:

1. To determine how the emergence of AI is presenting new ethical dilemmas in business operations across the globe.
2. To examine how businesses are addressing job loss possibilities resulting from automation through AI adoption across the world.
3. To explore the influence of current legal frameworks on AI adoption in organizations around the world.

## **Research Methodology**

The concept of AI has been around for a while and has gained considerable prominence since the introduction of generative AI such as ChatGPT which was initially released in 2022 (Dawson et al., 2024). Since then the market for generative AI tools is witnessing the mushrooming of AI tools and applications being developed and released to the market such as DALL-E, Midjourney, Gemini and more. The study tracks and provides insights on ethical issues and implications of legal frameworks on AI adoption. A systematic literature review is undertaken covering literature related to AI. The literature examined include, journal articles, conference proceedings, reports and books. The reason why the literature analyzed is broad in scope is because of the need to understand insights on contemporary issues from a broad range of stakeholders. Google scholar, Elsevier, Taylor and Francis, and IGI Global are the major databases of journals that were examined.

## **Results and discussion**

This section presents results of the studies that were analysed to come up with themes and insights on the confluence of artificial intelligence, legal frameworks and business ethics.

Table1 below summarizes the list of studies that were examined for the purposes of responding to the research objectives in this study.

**Table 1: Summary of Literature Reviewed**

	<b>Author Name (Year)</b>	<b>Title of Study</b>	<b>Article Type</b>	<b>Publisher</b>
1	Tlili et al., (2024)	Artificial intelligence ethics in services: are we paying attention to that?!	Journal	Taylor & Francis
2	Sheikh (2020)	Understanding the role of artificial intelligence and its future social impact	Book	IGI Global
3	(Chauhan & Gullapalli, 2021)	Ethics of AI in Pathology Current Paradigms and Emerging Issues	Journal	Elsevier (The American Journal of Pathology)
4	(Maddula, 2018)	The Impact of AI and Reciprocal Symmetry on Organizational Culture and Leadership in the Digital Economy	Journal	Journal of Engineering International
5	(Mallipeddi et al., 2017)	Telemedicine and Beyond: Navigating the Frontier of Medical Technology	Journal	Technology and Management Review
6	(Khair, 2018)	Security-Centric Software Development: Integrating Secure Coding Practices into the Software Development Lifecycle	Journal	Technology and Management Review
7	(Usman et al., 2023)	In The Realm Of The Machines: Ai's Influence Upon International Law And Policy	Journal	Journal of Social Research Development
8	(Abbott, 2016)	I think, therefore I invent: creative computers and the future of patent law	Journal	Boston College Law Review
9	(Asaro, 2012)	On banning autonomous weapon systems: human rights, automation, and the dehumanization of lethal decision-making	Journal	International Review of the Red Cross
10	(Roberts et al., 2021)	The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation	Journal	Springer (AI & Society)

11	(Madiaga, 2019)	EU guidelines on ethics in artificial intelligence: Context and implementation	Report (Briefing)	European Parliamentary Research Service
12	(Scherer, 2015)	Regulating artificial intelligence systems: Risks, challenges, competencies, and strategies	Journal	Harvard Journal of Law & Technology
13	(Dilhac et al., 2018)	Report of the Montréal Declaration for a responsible development of artificial intelligence	Report	European Commission's High-Level Expert Group on Artificial Intelligence
14	(Jobin et al., 2019)	Artificial Intelligence: the global landscape of ethics guidelines	Journal	Nature Machine Intelligence
15	(Schiff et al., 2020)	What's Next for AI Ethics, Policy, and Governance? A Global Overview	Conference Proceedings	Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society
16	(NITI Aayog, 2018)	India: National Strategy for Artificial Intelligence #AIFORALL. Technical Report	Report	National Strategy for Artificial Intelligence
17	(Greene et al., 2019)	Better, Nicer, Clearer, Fairer: A Critical Assessment of the Movement for Ethical Artificial Intelligence and Machine Learning	Conference Proceedings	Proceedings of the 52nd Hawaii International Conference on System Sciences -2019

## AI and ethics in business operations

AI adoption disrupts current norms in the business environment, emanating in the creation of new cultural norms and habits which may present significant accountability, trust and ethical problems (Maddula, 2018). Because of this, corporate leaders should not be caught unaware of such impacts presented by AI. This scenario calls for adept leaders who are swift to adapt to the fast paced changes in operational environments caused by digital technologies particularly AI. Maddula (2018) notes that management should avail supportive mechanisms such as promoting open communication on the benefits and constraints (both actual and perceived) resulting from AI adoption. This is crucial because everyone will have effective guidance as they manoeuvre the new AI driven business environment.

AI is trained on existing data and use such data to generate new content. Although it has the ability to generate new content, ethical dilemmas arise on how the data it trains on are harvested because some of the data are copyrighted. If not handled properly this can bring the business or any user of such information into disrepute. Lawsuits can even be filed if the situation is not handled properly. Consequently, Sheikh (2020) mentions that AI needs proper oversight because early experiences show that AI can pose serious challenges. Some of the key

challenges mentioned include discrimination, job displacement and other unintended negative consequences. It is challenges such as these which give rise to ethical dilemmas. Business leaders should be on the look out and find ways to ensure that ethical dilemmas are dealt with in the most appropriate manner possible. They should not wait for negative consequences to emanate before they can take action because the rate at which AI is advancing is unimaginable, therefore, business executives should be proactive in dealing with AI related issues and ethics.

AI is a double-edged sword since it has the potential to drastically influence productivity and efficiency in an organization or if not handled properly through sufficient regulatory mechanisms can cause havoc in the form of ethical dilemmas through cultural shifts. For example, if not used ethically AI can exacerbate existing inequalities in areas such as healthcare (Chauhan & Gullapalli, 2021), therefore, there is need for oversight to ensure responsible and ethical AI use in every endeavour. Management is seized with ensuring appropriate policies are in place to advance ethical AI use for the greater good of organizations. Maddula (2018) finds that AI technologies transform organizational culture and enhances data driven decisions which inspires innovation and cooperation.

### **Effects of AI on current and future workforce**

New jobs are going to emerge with the emergence of AI, it is certain that some jobs are going to be extinct at the same time. As a result, many questions arise which may pose ethical dilemmas for example, will there be enough new jobs created? (Sheikh, 2020), what will happen to those employees whose jobs are replaced by AI? does management have plans in place to ensure those with jobs replaced by AI are taken care of in some way? These are some of the contentious issues that need a relook so as to deal with negative implications of job displacement resulting from AI adoption (Usman et al., 2023). Mallipeddi et al (2017) note that AI adoption can lead to algorithmic biases depending on how the AI was trained and what data were used to train the AI, and job displacement as AI can perform some tasks better than a human being. For instance, NITI Aayog (2018) notes that customer service and technical support workers could lose their jobs as their work is slowly being automated. Such scenarios create ethical challenges for corporate leaders who are supposed to ensure that in the midst of the AI euphoria they still have to make decisions and navigate the hidden opportunities and threats availed by AI adoption in real time. Sheikh (2020) narrates that mundane repetitive tasks are going to be replaced by AI. AI adoption will affect almost everyone in the workforce, hence calls for everyone in the workforce to deliberate on how they need to upskill and consider how best they can operate side by side with AI. To this end corporate leaders should proactively address any possible signs of ethical dilemmas to ensure the technology serves the common good.

When developing an AI ethics framework, management and those charged with governance should take a holistic approach covering micro, meso and macro perspectives, so that the AI systems in place are ethically sound (Tlili et al., 2024). This approach assists management to identify, analyse and minimize the impact of ethical dilemmas or eliminate the dilemma where possible. Moreover, any AI systems developed or adopted by an organization should be infused with features that enhance transparency, responsibility, explainability and accountability (Tlili et al., 2024). This is crucial because this has the potential to reduce or eliminate possible instances of ethical dilemmas. More so, there is need for management to raise awareness on the effects of AI adoption (Tlili et al., 2024). This is crucial because it gives employees the opportunity to predict consequences of AI adoption on their current jobs. To ensure morale and productivity remain present, management needs to have training programs in place for their

employees so that they can acquire the necessary skills needed in an AI integrated workforce. Organizations that avail a conducive AI integration environment through appropriate policies and frameworks can make good use of AI to enhance their workforce talents (Khair, 2018).

### **Effects of current legal frameworks on AI adoption**

The emergence of AI brought with it challenges in the area of legal frameworks and policy initiatives (Usman et al., 2023), therefore, the integration of AI in business processes raises serious legal and ethical questions on the ideal organization of the future. Management must have in place AI ethical frameworks which can be augmented by regulatory frameworks to cater for the long-term effects of AI adoption. Therefore, corporate leaders should team up with lawmakers to ensure regulatory frameworks and laws governing AI are developed (Tlili et al., 2024). For example, since the year 2016 more than 80 AI ethics documents composed of principles, codes, policy strategies and frameworks were produced by governments, corporates and non-governmental organizations (NGOs) (Jobin et al., 2019). This is of utmost importance to avoid major variations between ethical frameworks designed by corporates versus the regulatory and legal frameworks designed by regulators. Like Tlili et al (2024), Scherer (2015) advocates for the development of new legal frameworks specific for AI and not modify the already existing frameworks. Such initiatives are noble and commendable but can take time and resources given the accelerated pace at which AI is advancing, such drawbacks are significantly felt by low- and middle-income economies such as Zimbabwe who may struggle to mobilize resources and expertise. In the same vein Sheikh (2020) places the burden on governments, detailing that it is government which needs to be proactive in repealing current regulation or parts of current regulation which is no longer relevant in the age of AI and replace it with AI-friendly policies that are fair, equal and unbiased. On the other hand, there are some stakeholders who are in favour of AI self-regulation compared to government intervention, arguing that governments are at times stifle and lack the needed flexibility when dealing with a rapidly changing technology (Schiff et al., 2020).

As AI continue to be sophisticated and more intelligent in making own decisions which are as good as those of a human being, or sometimes surpassing that of a human being, a question that arises is who should be held responsible in the event that things go awry? (Asaro, 2012). It is such arguments which lead to calls for a relook into current laws on how effective they are in tackling such issues including cyber-attacks that are perpetrated in the name of AI. Maddula (2018) examines the impact of AI on organizational culture and leadership in the digital economy and came up with interesting findings and observations that corporate leaders should emphasize teamwork and reciprocal symmetry when adopting AI. This is crucial because AI has the potential to enhance favourable organizational and societal outcomes. Hence, an inclusive environment which values equity, diversity and transparency should be fostered. In addition Usman et al (2023) call for interdisciplinary research collaborations in trying to find solutions to ethical and regulatory issues emanating from AI adoption.

Usman et al (2023) are of the view that AI adoption is encroaching and violating some fundamental human rights such as privacy and non-discrimination rights. This calls for a need to come up with a legal framework to ensure such fundamental tenets are not violated in the name of technological advancement. The basis and objective of any advanced technology should be to improve people's standards of living without compromising on their fundamental human rights. Another contentious issue raised by Usman et al (2023) is on the question of ownership of intellectual property regarding creations and inventions developed by AI. Does AI own the invention? Does the end user of AI own the invention or does the AI developer

own the creation? All these questions raise key ethical and legal questions that require a clear regulatory and ethical framework to clearly guide all AI stakeholders. Current copyright laws were designed with a focus on human ownership (Abbott, 2016). Therefore, in the age of AI such laws may need to be revamped to make them align with the emergence of AI.

The public sector in governments across the world has released close to 50 ethics and policy documents related to AI since 2016, with countries such as New Zealand, Australia, Mexico, India, China, Japan, Denmark, Sweden, Finland, Canada, USA, Italy, German and France taking the lead (Schiff et al., 2020). More so, countries such as China are already taking proactive steps by developing long-term plans to achieve global leadership in the realm of AI by 2030 (Roberts et al., 2021). Given that China is a one of the superpowers in the world, such initiatives may be perceived as daunting, particularly if they prioritize advancement in sophisticated military technology and capabilities. On the other hand, the European Union (EU) is taking a cautious approach in AI regulation focusing on robust AI guidelines and proposing legal frameworks such as the General Data Protection Regulation (GDPR) (Madiaga, 2019). Multinational Corporations (MNCs) that operate in more than one jurisdiction can experience challenges when adopting AI in their business processes in instances where the legal framework of one jurisdiction differs from the other. However, Usman et al (2023) citing GPAI (2020) notes that recent trends are showing signs of international convergence and cooperation on a global stage as nations are coming together in promoting ethical AI use, through the inception of forums such as the Global Partnership on AI. An interesting point to note is that prominent MNCs such as Microsoft, Google, IBM, Baidu, Tencent, Intel, Sony, Workday, SAP, and Sage are at the forefront of producing some of the leading AI ethics documents in the private sector (Schiff et al., 2020). This discourse shows the power of these big corporates that are well resourced as they have the means and resources to shape the AI ethics and AI policy narratives. The voice and needs of small to medium enterprises (SMEs) is usually not heard because they normally lack the means and resources (Greene et al., 2019). This is like a comparison between developed and developing countries, wherein developed nations take the lead and developing countries remain laggards.

Complex questions on the global stage that remain are: Who should be responsible for governing AI use internationally? and Whose ethical framework should be adopted, globally? (Usman et al., 2023). Trying to find answers to these questions is not an easy task given that it demands national leadership across the globe to be in one room making such decisions, and we all know this is close to impossible, because different stakeholders already disagree on the extent and nature of governance appropriate for AI (Schiff et al., 2020). Notwithstanding all these narrated challenges and critical questions. There is a consensus that AI is here to stay, and responsible AI use brings with it massive benefits in business and life in general. Therefore, those in positions of authority and with resources should focus their minds, resources and energy on creating a safe environment for AI use.

## **Conclusion and recommendations**

This study sort to examine the confluence of AI, legal frameworks and business ethics. It concludes that integration of AI in business processes has shifted the normal ethical landscape, leading to the emergence of ethical issues such as privacy, potential algorithmic biases and data security. It is also shown that current ethical guidelines are lagging, emanating gaps in transparency and accountability. The same applies to current legal frameworks which are also lagging because until now there is not yet standardised international legal frameworks governing AI use and deployment in business. This scenario has an impact on MNCs which



operate across national boundaries. The study findings also highlight the need for effective AI governance models to guide the overall AI deployment strategy and implementation in corporations. However, until now there has not been consensus as to who should superintend over such AI governance frameworks between the government or private sector, or which international organization should oversee such an initiative. This lack of consensus has led to the public sector, private sector and NGOs designing unique and individual AI ethics and policy documents to guide their AI deployment strategies.

The study further calls for collaboration and teamwork amongst the diverse range of AI stakeholders to create an AI ethics ecosystem that caters for all. To this end, the study recommends that corporate leaders should participate in AI education initiatives and encourage the same to all sections in their companies so that when it comes to AI deployment strategies, they can make informed decisions. Policy makers should prioritise the development of standardized legal and ethical frameworks, and such frameworks should be principle based and not rule based to accommodate the ever-evolving nature of AI technologies. Regulators and corporate leaders should encourage interdisciplinary collaborations when developing AI ethics and legal frameworks. Furthermore, regulators should cause regular AI audits and ethical reviews to ensure compliance with established guidelines.

Indeed, all professions are going to be affected in one way or the other because of the emergence of AI. Hence, many questions arise relative to those professions which are going to be eliminated totally through full automation. How are those employees affected going to make a living? Are capitalists going to fund the training needs of those in need of upskill to stay relevant in the world of work dominated by AI? Answers to such questions are not readily available, especially given the notion that a lot of business executives priorities profits over people. Therefore, for now it's a wait and see scenario as business executives try to find their rightful place in the conundrum of AI adoption. There is a need for experts in ethics and AI developers to find ways to teach ethics and morality to AI systems. Overall, this study complements current conversations on AI and ethics by advocating for ethical AI use, thus provoking AI and corporate leaders to come together and design AI best practices. In the end there is a need for harmony rather than divergence at every level in the organization, national and international scale as we all try to find ways to co-exist with this frontier AI technology and harness it for the greater good.

## References

- Abbott, R. (2016). *I think, therefore I invent creative computers and the future of patent law*. Boston College Law Review, 57, 1079.
- Asaro, P. (2012). *On banning autonomous weapon systems: human rights, automation, and the dehumanization of lethal decision-making*. International Review of the Red Cross, 94(886), 687–709.
- Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. WW Norton & Company.
- Bughin, J., Seong, J., Manyika, J., Chui, M., & Joshi, R. (2018). *Notes from the AI frontier: Modeling the impact of AI on the world economy*. McKinsey Global Institute, 4(1).
- Chakravorti, B., Chaturvedi, R. S., Filipovic, C., & Brewer, G. (2020). *Digital in the time of Covid. Trust in the digital economy and its evolution across 90 economies as the planet paused for a pandemic*. Fletcher School, Tufts University, Medford, MA.
- Chauhan, C., & Gullapalli, R. R. (2021). Ethics of AI in Pathology. *The American Journal of Pathology*, 191(10), 1673–1683. <https://doi.org/10.1016/j.ajpath.2021.06.011>

- Dawson, P., Bearman, M., Dollinger, M., & Boud, D. (2024). *Validity matters more than cheating. Assessment & Evaluation in Higher Education*, 1–12. <https://doi.org/10.1080/02602938.2024.2386662>
- Dilhac, M.-A., Abrassart, C., & Voarino, N. (2018). *Report of the Montréal Declaration for a responsible development of artificial intelligence*. [https://papyrus.bib.umontreal.ca/xmlui/bitstream/handle/1866/27795/UdeM\\_Decl\\_IA-Resp\\_Rapport\\_complet\\_EN.pdf?sequence=2](https://papyrus.bib.umontreal.ca/xmlui/bitstream/handle/1866/27795/UdeM_Decl_IA-Resp_Rapport_complet_EN.pdf?sequence=2)
- Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., Madelin, R., Pagallo, U., & Rossi, F. (2018). *AI4People—an ethical framework for a good AI society: opportunities, risks, principles, and recommendations*. *Minds and Machines*, 28, 689–707.
- Greene, D., Hoffmann, A. L., & Stark, L. (2019). *Better, nicer, clearer, fairer: A critical assessment of the movement for ethical artificial intelligence and machine learning*. *Proceedings of the 52nd Hawaii International Conference on System Sciences -2019*, 1–10.
- Jobin, A., Ienca, M., & Vayena, E. (2019). *The global landscape of AI ethics guidelines*. *Nature Machine Intelligence*, 1(9), 389–399. <https://doi.org/https://doi.org/10.1038/s42256-019-0088-2>
- Kabalisa, R., & Altmann, J. (2021). *AI Technologies and Motives for AI Adoption by Countries and Firms: A Systematic Literature Review BT - Economics of Grids, Clouds, Systems, and Services* (K. Tserpes, J. Altmann, J. Á. Bañares, O. Agmon Ben-Yehuda, K. Djemame, V. Stankovski, & B. Tuffin (eds.); pp. 39–51). Springer International Publishing.
- Khair, M. A. (2018). *Security-Centric Software Development: Integrating Secure Coding Practices into the Software Development Lifecycle*. *Technology & Management Review*, 3(1), 12–26.
- Maddula, S. S. (2018). *The Impact of AI and Reciprocal Symmetry on Organizational Culture and Leadership in the Digital Economy*. *Engineering International*, 6(2), 201–210.
- Madiega, T. (2019). *EU Guidelines on Ethics in Artificial Intelligence: Context and implementation*. In European Parliamentary Research Service: Vol. PE 640.163 (Issue September). [https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/640163/EPRS\\_BRI\(2019\)640163\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/640163/EPRS_BRI(2019)640163_EN.pdf)
- Mallipeddi, S. R., Goda, D. R., Yerram, S. R., Varghese, A., & Ande, J. R. P. K. R. (2017). *Telemedicine and Beyond: Navigating the Frontier of Medical Technology*. *Technology & Management Review*, 2(1), 37–50.
- McKinsey & Company. (2020). *The state of AI in 2020*. McKinsey & Company. <https://www.mckinsey.com/capabilities/quantumblack/our-insights/global-survey-the-state-of-ai-in-2020>
- Mittelstadt, B. D., Allo, P., Taddeo, M., Wachter, S., & Floridi, L. (2016). *The ethics of algorithms: Mapping the debate*. *Big Data & Society*, 3(2), 2053951716679679.
- NITI Aayog. (2018). India: National Strategy for Artificial Intelligence #AIFORALL. Technical Report.
- Roberts, H., Cowls, J., Morley, J., Taddeo, M., Wang, V., & Floridi, L. (2021). *The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation*. *AI & Society*, 2021(36), 59–77. <https://doi.org/https://doi.org/10.1007/s00146-020-00992-2>
- Scherer, M. U. (2015). *Regulating artificial intelligence systems: Risks, challenges, competencies, and strategies*. *Harvard Journal of Law & Technology*, 29(3), 354–400.

- Schiff, D., Biddle, J., Borenstein, J., & Laas, K. (2020). *What's next for ai ethics, policy, and governance? a global overview*. Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society, 153–158. <https://doi.org/https://doi.org/10.1145/3375627.3375804>
- Schwab, K. (2017). *The fourth industrial revolution*. Crown Currency.
- Sengar, S. S., Hasan, A. Bin, Kumar, S., & Carroll, F. (2024). *Generative artificial intelligence: a systematic review and applications*. Multimedia Tools and Applications. <https://doi.org/10.1007/s11042-024-20016-1>
- Sheikh, S. (2020). *Understanding the role of artificial intelligence and its future social impact*. IGI Global.
- Tlili, A., Denden, M., Abed, M., & Huang, R. (2024). *Artificial intelligence ethics in services: are we paying attention to that?!* The Service Industries Journal, 1–24. <https://doi.org/10.1080/02642069.2024.2369322>
- Usman, H., Tariq, I., & Nawaz, B. (2023). In The Realm of the Machines: Ai's Influence Upon International Law and Policy. *Journal of Social Research Development*, 4(2), 383–399.
- Voigt, P., & Von dem Bussche, A. (2017). *The eu general data protection regulation (gdpr)*. A Practical Guide, 1st Ed., Cham: Springer International Publishing, 10(3152676), 10–5555.
- World Economic Forum. (2020). *The Future of Jobs Report 2020*. World Economic Forum. <https://www.weforum.org/publications/the-future-of-jobs-report-2020/>