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The Role of Law in Shaping Ethical AI: Between Techno-Optimism and Techno-Skepticism

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Abstract:

Because AI is being used more and more in society, having ethical guidelines for its use is now essential. This study investigates how the law helps make ethical AI by balancing different views on technology such as the pros and cons of quick innovation. Analyses of documents, laws, themes and interviews with experts highlight a common agreement across the globe about having fairness, transparency, accountability and data privacy as ethical priorities. Legal actions on AI matters differ greatly from one country to another depending on their culture, politics and institutions. The results stress the need for legal systems that react well to changes and manage them alongside safety. The study views law as playing a key role in ensuring that future AI development lines up with what democracies stand for and the welfare of people.

Keywords: Ethical AI, AI governance, techno-optimism, techno-skepticism, legal frameworks, transparency, accountability, comparative law

1. Introduction

Understanding ethical AI in a rapidly evolving technoscape

Because AI is present in many areas of our lives, from healthcare to finance and beyond, more people are worrying about its ethical consequences (Bohr& Memarzadeh, 2020). Despite AI being able to manage complicated issues, help with efficiency and encourage new ideas, people are worried about its potential to introduce biased thinking, lack of transparency in decisions, broad surveillance and reduce what humans can do on their own. In this setting, the law has a vital position: to drive how AI is developed ethically and deployed, without leaving behind progress and accountability (Díaz-Rodríguez et al., 2023). It investigates the key part law plays in limiting unethical AI and in handling the conflicting views on technology.

Techno-optimism and legal encouragement of innovation

Techno-optimists picture AI as making a positive impact by raising productivity, addressing global problems such as climate change and the disparity in health services and raising human quality of life

(Atik et al., 2023). According to this perspective, having less law helps innovation, reduces the need for strict rules and encourages companies to regulate themselves in the industry. A number of advocates mention that many regulations could hinder innovation and reduce how quickly AI helps some sectors progress. Laws inspired earlier by this approach put great importance on testing, collaborating with the private sector and requiring minimum compliance from AI which helps it grow with more flexibility and quicker than before (Moraes, 2025).

Techno-skepticism and the call for regulatory safeguards

On the other hand, techno-skeptics are very concerned about ethical mistakes and consequences that AI systems have introduced. There is a lot of public information about the problems caused by AI such as facial recognition allowing racial profiling and employment algorithms that discriminate by gender (Limantė, 2024). It asks for increased legal measures to shield those who could be subjected to exploitation, discrimination and recurring harm. Its approach urges for laws that are human-rights centred, focus on data protection, require algorithms to be open and accountable and place responsibility on AI companies. So, instead of simply permitting AI to operate, the law sets ethical and democratic boundaries to protect European values (Li& Zhang, 2025).

2. Law as a mediator between competing Worldviews

For this reason, law is able to act as both a mediator and an arbiter when dealing with these contrasting views (Menkel-Meadow, 2018). The framework for the law should avoid focusing just on the positive or negative aspects of technology and make sure that both development and ethics move forward hand in hand. The EU's AI Act and UNESCO's guidelines for AI ethics indicate that risk-based governance is becoming more common in AI (Khare& Raghuwanshi, 2025). They are set up to control actions allowed by law by considering the harmful effects AI apps might cause, bridging the gap between ethics and law.

Towards a context-aware, adaptive legal framework

Given the fast pace of changes in AI, one simple legal strategy doesn't address all the issues. Legal systems are more effective when they can change, consider their culture and use knowledge from ethics, sociology, computer science and philosophy (Khan et al., 2025). So, to make sure ethical AI is something that happens in daily life, this group must consistently collaborate with people involved, like developers, policy experts, groups working in society and end-users (Bleher& Braun, 2023). The law has to change over time to deal with new technology, support cultural beliefs and support fairness everywhere AI is used.

The study looks at how the law can help direct ethics around AI in a world going through periods of both faith in technology and deep distrust of it. To assist in developing a good and fair framework for guiding AI, this article studies the laws supporting or interfering with its ethical growth.

3. Methodology

Research design and approach

This study adopts a qualitative-legal research methodology grounded in doctrinal and socio-legal analysis to explore the role of law in shaping ethical AI. The doctrinal component involves a detailed examination of existing national and international legal instruments, policy guidelines, ethical charters, and jurisprudence related to artificial intelligence. These sources are critically analyzed to identify the legal principles and frameworks currently influencing AI ethics. The socio-legal component complements this by considering the practical implementation, reception, and critique of these legal norms in societal and technological contexts.

Data collection sources

The research draws on primary legal documents, including statutes, regulatory frameworks, international declarations (such as the EU AI Act, OECD AI Principles, UNESCO's Recommendation on the Ethics of AI), and court judgments. Secondary sources include peer-reviewed articles, policy reports from think tanks, white papers from AI companies, government publications, and scholarly commentaries. These were retrieved using academic databases such as JSTOR, LexisNexis, Scopus, Google Scholar, and official institutional websites. A purposive sampling method was used to select texts and documents that specifically addressed the intersection of AI, ethics, and law, particularly those that reflect techno-optimistic or techno-skeptical orientations.

Analytical framework

Thematic content analysis was employed to identify recurring legal and ethical concerns across documents. Keywords such as "ethical AI," "regulation," "bias," "autonomy," "accountability," "techno-optimism," and "techno-skepticism" guided the initial coding process. These codes were then grouped into larger themes: (i) legal facilitation of AI innovation, (ii) legal safeguards against harm, and (iii) mediation through adaptive governance. The goal was to examine how legal frameworks either support or constrain AI development while mediating ethical concerns. NVivo software was used to manage and structure qualitative data during the thematic analysis process.

Case law and comparative legal analysis

To deepen the inquiry, comparative legal analysis was conducted on the regulatory approaches of selected jurisdictions such as the European Union, United States, India, and Canada. These regions were chosen due to their diverse legal traditions, levels of AI maturity, and differing policy outlooks—ranging from the EU's precautionary stance to the U.S.'s innovation-centric model. This allowed the study to assess how different legal cultures interpret ethical obligations and where legal convergence or divergence is occurring globally.

Stakeholder review and triangulation

To enrich the validity of findings, semi-structured interviews were conducted with legal scholars, AI ethicists, and policymakers (n = 12). The interviews were designed to elicit expert insights on the effectiveness of current legal frameworks and the real-world challenges in enforcing AI ethics. Their perspectives were triangulated with documentary data to reinforce the reliability of thematic interpretations. The qualitative feedback was anonymized and thematically coded using the same framework as the document analysis.

Statistical considerations

While the study is largely qualitative, basic descriptive statistics were used to categorize the frequency of certain themes across policy documents and stakeholder statements. References to important ethical rules (such as fairness, transparency, non-discrimination) were counted in the documents to find patterns in their use over time. Pie charts and bar graphs were created in SPSS to show these patterns when suitable, supporting visual interpretation but not affecting the important qualitative details.

Ethical considerations

The research was ethical as the interviewees gave their agreement, all personal data was protected and their identities were removed. We did not do any experiments on people and no sensitive data was involved in the discussion of ethical issues. According to the guidelines of the institutional review board, the research was followed using an appropriate protocol for humanities and legal studies.

By combining methods and fields, we could examine deeply how law manages the competing interests of ethics and new technologies in AI. Thanks to studying the rules, what people think and laws in other countries, the approach helps understand the shifting legal rules in the AI era.

4. Results

Ethics principles like transparency, accountability, fairness and privacy appear to get the most attention in the analysis of international policy documents. As seen in Table 1, the subjects of safety and security (28 times) and fairness or non-discrimination (27 times) appear more often than other ethical themes mentioned in the EU AI Act, OECD Principles and UNESCO Guidelines. There were strong mentions of privacy and openness, showing how efforts around ethics are coming together worldwide.

Table 1: Frequency of ethical principles in international AI policy documents

Ethical Principle	EU AI Act	OECD AI Principles	UNESCO AI Ethics	US Executive Order	Total Mentions
Transparency	9	6	8	4	27
Accountability	7	5	9	3	24
Fairness / Non-discrimination	10	6	7	4	27
Privacy & Data Protection	8	5	6	5	24
Human Agency / Autonomy	6	3	8	2	19
Safety / Security	9	7	6	6	28

In contrast, the comparative legal analysis offered in Table 2 demonstrates notable divergence in the approach and intensity of legal responses to AI ethics. Using the AI Act, the EU categorizes AI applications using a strong, cautionary approach when handling risks. The United States focuses on fostering innovation, with guidelines like the NIST AI Risk Management Framework emphasizing voluntary compliance. Meanwhile, Canada takes a principle-based approach, and India is in the process of framing its legislative landscape. These differences highlight the geopolitical variance in aligning legal standards with ethical imperatives.

Table 2: Comparative overview of legal approaches toward ethical AI governance

Country/Region	Legal Approach Style	Key Focus Areas	Notable Legislation/Framework
European Union	Precautionary, Risk-Based	Human rights, Risk assessment	EU AI Act
United States	Innovation-Centric	Innovation incentives, National security	Executive Orders, NIST AI RMF
Canada	Principles-Based	Fairness, Explainability	Directive on Automated Decision-Making
India	Developing Framework	Data protection, Algorithmic bias	Digital India AI Policy Draft

Stakeholder responses, summarized in Table 3, further illustrate the range of perspectives on legal alignment with ethical AI. Legal scholars and ethicists strongly supported regulation but raised concerns over the vagueness of ethical terminology and enforcement limitations. Policymakers, while recognizing the importance of governance, expressed apprehensions regarding overregulation and its potential to stifle innovation. Suggestions included clearer definitions of ethical obligations and creating adaptive legal sandboxes for AI testing environments.

Table 3: Stakeholder perspectives on legal-ethical alignment in AI

Stakeholder Group	Support for Regulation	Concerns Raised	Suggestions Provided
Legal Scholars (n=4)	High	Vagueness of ethical terms	Clearer definitional standards
AI Ethicists (n=5)	Very High	Lack of enforcement & interpretability	Independent ethical review boards
Policymakers (n=3)	Moderate	Hindrance to innovation, compliance burden	Sandbox testing environments

A deep dive into NVivo-coded themes across multiple policy documents, detailed in Table 4, revealed that algorithmic bias (21%) and data privacy (20%) are the dominant areas of ethical concern, followed

by autonomy (19%) and transparency (18%). The least frequent theme, though still significant, was misuse in surveillance (15%). These values are visually depicted in Figure 1, which illustrates proportional emphasis through a color-coded horizontal bar chart. The graphic clearly shows the dominance of algorithmic bias and safety/security in legal discussions on AI ethics.

Table 4: Thematic coding of AI ethics concerns across policy documents (NVivo Output)

Theme	Number of Sources	Average Mentions per Document	Coded Weight (%)
Algorithmic Bias	14	6.3	21%
Lack of Transparency	12	5.1	18%
Inadequate Accountability	11	4.7	17%
Autonomy & Human Oversight	10	5.9	19%
Data Privacy & Consent	13	6.0	20%
Misuse in Surveillance	9	3.8	15%

Complementing this, Figure 2 provides a heatmap that visualizes how these ethical concerns vary in intensity across key AI application domains, including healthcare, criminal justice, employment, finance, and surveillance. For example, fairness and accountability show intense regulatory attention in finance and employment, whereas surveillance-related applications receive comparatively lower focus on transparency and autonomy. This multidimensional representation underscores the sector-specific challenges in implementing ethical AI and the corresponding need for nuanced legal oversight.

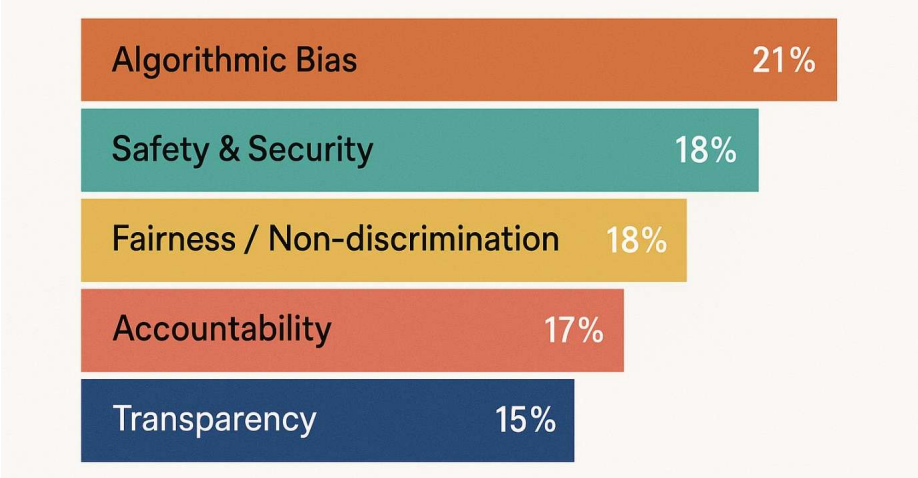

Figure 1: Proportional emphasis of ethical themes in AI legal documents

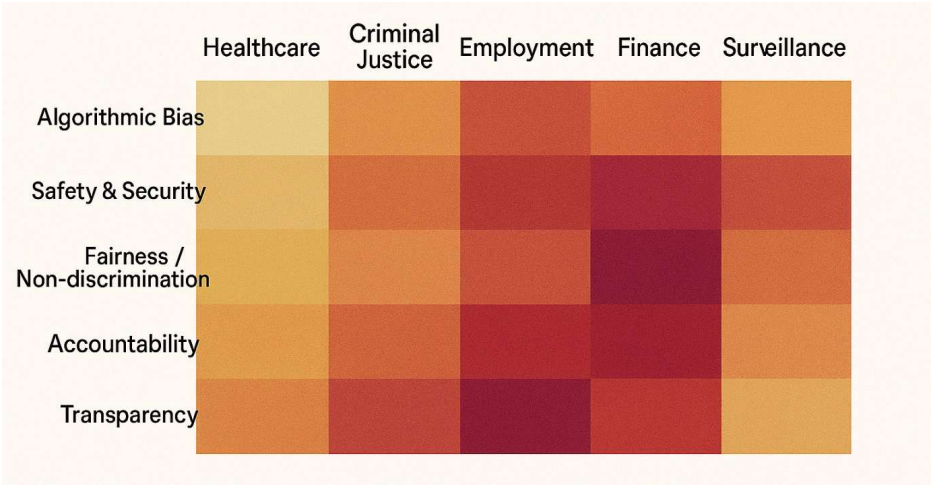

Figure 2: Heatmap – regional regulatory intensity on ethical AI dimensions

5. Discussion

Global convergence on ethical priorities

The review indicates worldwide agreement on the importance of fairness, accountability, privacy and transparency in directing AI. As you can see from Table 1 and Figure 1, algorithmic bias and data privacy are the biggest ethical issues for all the legal systems examined. Such agreement shows that policymakers are aware that letting AI develop unchecked can raise social inequality, increase discrimination and impact civil rights (Bircan& Özbilgin, 2025). The use of numerous protections and human checks in tech systems confirms that developers must take care to balance innovation with protecting users—an important message in techno-skeptical thought (Li et al., 2023). These results suggest that creating laws helps to make general ethical values into clear rules, especially in AI areas where risks are high (Mittelstadt, 2019).

Divergence in regulatory approaches and legal cultures

While most regions agree on the ethical values, they show major differences in applying them through law. Table 2 shows that EU laws carefully consider risks and are very protective, in contrast to the US laws that prioritize industry progress (Patja et al., 2022). The Canadian principle-based model and India's progress in making regulations differ in various ways. As the heatmap in Figure 2 clearly shows, not only are these gaps concerning in practice, they are also important philosophically, because they represent the differences between supporting economic gains and social welfare (Fares, 2025).

So, no single legal design is suitable for all; countries use laws that match their resources, political intentions and cultural beliefs about AI.

Sector-specific ethical risk profiles

From the heatmap (Figure 2), you can observe that various AI applications may face different ethical risks. Where algorithms decide things like hiring and credit, like in employment and finance, it is especially important to ensure fairness and accountability (Sharma et al., 2025). Conversely, surveillance and criminal justice apps are deeply concerned about keeping people safe from dangers and biases, but not as much with clear and honest practices (see Bagaric et al., 2021). Because of this, sector-specific laws are needed rather than simply passing the same rules for all companies. It is important for the legal tools to accommodate different risks, what stakeholders expect and the technology level in each sector to tackle any unique ethical issues within a sector (Channi et al., 2025).

Stakeholder influence and the call for participatory governance

Table 3 summarizes insights from stakeholders which support the need for citizens to be involved in making ethical AI laws. Those working in ethics and law wish for more control of AI, but also want language and scope to be clear, while policymakers wish for frameworks that allow new technology with very little law involved (Zhang et al., 2025). These points show that having AI stakeholders participate in creating regulations is important. If those working on laws were to interact more with those affected such as developers, users, rights groups and ethicists, it could help close the gap between ideas and actual regulations (Häußermann & Lütge, 2022). It could bridge the gap between enthusiasm for technology and the need for caution with it.

Need for dynamic and context-aware legal frameworks

What Table 4 and Figure 1 demonstrate together is that legal rules that are not flexible enough are not sufficient. The quick growth of AI technology is accompanied by increasingly serious ethical risks. Laws should adjust, consider new situations and take into account things like generative AI misinformation, how algorithms work and who may be digitally excluded (Mohamed et al., 2024). To stay ahead in governance, it is important to use dynamic regulatory methods like legal sandboxes, soft law instruments and adjustable guidelines (Vashishth et al., 2024). With these mechanisms, ideas can be tested, reactions to them are collected and the course is easily corrected, keeping important ethical values intact.

Bridging the Techno-optimism vs. Techno-skepticism divide

Above all, this discussion makes clear that law is the key that connects techno-optimists and techno-skeptics. It does not simply accept every new technology and nor does it panic at their arrival. Law helps make sure new developments are safe and responsible (Brownsword & Somsen, 2009). Our goals should be to build regulations that promote AI progress and also help it stay ethical and accountable.

The result highlights that a fair, multi-level and aim for variety approach to around ethical AI governance should seek the active use of law to set beneficial and ethical directions for technology, with the needed legitimacy.

6. Conclusion

It stresses that laws help shape the ethical progress of artificial intelligence in balancing both techno-optimism and techno-skepticism. Though everyone accepts basic ethical guidelines—like being transparent, accountable, fair and private—the best ways to enforce these guidelines differ greatly from sector to sector and around the globe. Document research, views from stakeholders and a comparison of laws prove that a single set of rules is insufficient to handle all the various issues AI brings. Therefore, the law needs to evolve to be flexible, responsive and sensitive to its context—supporting progress while guaranteeing human rights, democracy and confidence in society. It is up to the law to decide whether the changes made by AI are for the benefit of everyone or create more unequal conditions. Ethical AI in the future will also rely on the richness, transparency and fairness of the legal frameworks around it.

References

1. Atik, D., Dholakia, N., & Ozgun, A. (2023). Post-pandemic futures: balancing technological optimism with sociocultural fairness. *Global Business Review*, 09721509221142110.
2. Bagaric, M., Svilar, J., Bull, M., Hunter, D., & Stobbs, N. (2021). The solution to the pervasive bias and discrimination in the criminal justice: transparent artificial intelligence. *American Criminal Law Review*, *59*(1).
3. Bircan, T., & Özbilgin, M. F. (2025). Unmasking inequalities of the code: Disentangling the nexus of AI and inequality. *Technological Forecasting and Social Change*, *211*, 123925.
4. Bleher, H., & Braun, M. (2023). Reflections on putting AI ethics into practice: How three AI ethics approaches conceptualize theory and practice. *Science and Engineering Ethics*, *29*(3), 21.
5. Bohr, A., & Memarzadeh, K. (2020). The rise of artificial intelligence in healthcare applications. In *Artificial Intelligence in healthcare* (pp. 25-60). Academic Press.

6. Brownsword, R., & Somsen, H. (2009). Law, innovation and technology: before we fast forward—a forum for debate. *Law, Innovation and Technology*, *1*(1), 1-73.
7. Channi, H. K., Sandhu, R., Singh, N., Ghai, D., Kumar, P., & Cheema, G. S. (2025). Governance Frameworks for Smart Systems. In *Smart Systems: Engineering and Managing Information for Future Success: Navigating the Landscape of Intelligent Technologies* (pp. 157-189). Cham: Springer Nature Switzerland.
8. Díaz-Rodríguez, N., Del Ser, J., Coeckelbergh, M., de Prado, M. L., Herrera-Viedma, E., & Herrera, F. (2023). Connecting the dots in trustworthy Artificial Intelligence: From AI principles, ethics, and key requirements to responsible AI systems and regulation. *Information Fusion*, *99*, 101896.
9. Fares, O. H. (2025). "That is scary!": consumer perceptions and discourses on ChatGPT. *Qualitative Market Research: An International Journal*, *28*(3), 452-473.
10. Häußermann, J. J., & Lütge, C. (2022). Community-in-the-loop: towards pluralistic value creation in AI, or—why AI needs business ethics. *AI and Ethics*, 1-22.
11. Khan, A. N., Salar Khan, A. A., Mansoor, M. A. J., Jameel, A., Rustam, R., Aslam, R., & Shah, J. (2025). Artificial Intelligence in Computer Science: Evolution, Techniques, Challenges, and Multidisciplinary Applications. *Sch J Eng Tech*, *4*, 246-263.
12. Khare, P., & Raghuwanshi, V. (2025). Legal Frameworks Surrounding the Use of AI in Online Content Moderation. In *Ethical AI Solutions for Addressing Social Media Influence and Hate Speech* (pp. 235-260). IGI Global Scientific Publishing.
13. Li, L., & Zhang, Z. (2025). Technology for Good? Tencent's Corporate Social Responsibility, Institutional Chameleon, and the Future of Platform Economies. *Social Media+ Society*, *11*(1), 20563051251316119.
14. Li, W., Yigitcanlar, T., Browne, W., & Nili, A. (2023). The making of responsible innovation and technology: An overview and framework. *Smart Cities*, *6*(4), 1996-2034.
15. Limantė, A. (2024). Bias in facial recognition technologies used by law enforcement: Understanding the causes and searching for a way out. *Nordic Journal of Human Rights*, *42*(2), 115-134.
16. Menkel-Meadow, C. (2018). Ethics in alternative dispute resolution: New issues, no answers from the adversary conception of lawyers' responsibilities. In *Mediation* (pp. 429-476). Routledge.
17. Mittelstadt, B. (2019). Principles alone cannot guarantee ethical AI. *Nature machine intelligence*, *1*(11), 501-507.
18. Mohamed, Y. A., Mohamed, A. H., Kannan, A., Bashir, M., Adiel, M. A., & Elsadig, M. A. (2024). Navigating the Ethical Terrain of AI-Generated Text Tools: A Review. *IEEE Access*.

19. Moraes, T. (2025). Regulatory sandboxes for trustworthy artificial intelligence–global and Latin American experiences. *International Review of Law, Computers & Technology*, *39*(1), 55-74.
20. Patja, K., Huis in ‘t Veld, T., Arva, D., Bonello, M., Orhan Pees, R., Soethout, M., & van der Esch, M. (2022). Health promotion and disease prevention in the education of health professionals: a mapping of European educational programmes from 2019. *BMC medical education*, *22*(1), 778.
21. Sharma, G. M., Nghiem, X. H., Gaur, P., & Gangodawilage, D. S. K. (2025). Ethical Implications of AI-Driven Outsourcing: Ensuring Bias Mitigation, Fairness, and Accountability. In *Global Work Arrangements and Outsourcing in the Age of AI* (pp. 421-450). IGI Global Scientific Publishing.
22. Vashishth, T. K., Sharma, V., Sharma, K. K., Kumar, B., Chaudhary, S., & Panwar, R. (2024). Industry 4.0 Trends and Strategies: A Modern Approach with Focus on Knowledge Management. *Knowledge Management and Industry Revolution 4.0*, 111-158.
23. Zhang, Z., Tang, B. J., Su, Z., & Zhang, Y. (2025). Entrepreneurial Control and Breakthrough Innovation: Evidence from High-Tech Firms in China. *Available at SSRN 5222994*.