ARTIFICIAL INTELLIGENCE AND CORPORATE GOVERNANCE: LEGAL CHALLENGES FOR DIRECTORS' LIABILITY AND RISK DISCLOSURE PRACTICES

*Prof. dr. sc. Andreja Primec**
*Prof. dr. sc. Bojan Tičar***
*Gal Pastirk, mag. iur.****

UDK 347.72::004.8
https://doi.org/10.30925/zpfsr.47.2.9
Ur.: 27. ožujka 2025.
Pr.: 3. ožujka 2026.
Pregledni rad

Summary

Many of the challenges facing society's future are closely linked to the development of new technologies, such as artificial intelligence (AI). The development of AI is extensive and, among other things, will profoundly impact how corporations function. The paper examines how the rapid growth of AI is already affecting the operations of corporate governance and governing bodies. Directors must be aware of the importance of developing ethically responsible and trustworthy AI systems, as this ensures corporate performance in the long run. The changed circumstances brought about by new technology have reinforced the roles of directors and supervisors in setting strategic direction and ensuring high ethical standards. Senior representatives of major corporations have recently highlighted the complexity of the challenges associated with AI's development. To avoid potential disputes with shareholders, companies need to clearly present in their annual reports the critical factors that may affect their business. In this way, they further demonstrate their accountability to shareholders and other stakeholders, who must be aware of the risks and potential negative consequences of AI.

Keywords: *artificial intelligence; corporate governance; legal regulation of artificial intelligence; directors' liability; annual reports.*

* Andreja Primec, Ph.D., Full Professor, University of Maribor, Faculty of Economics and Business, Slovenia; University of Primorska, Slovenia; Euro-Mediterranean University, Slovenia; andreja.primec@um.si. ORCID: https://orcid.org/0000-0002-5615-7299.

** Bojan Tičar, Ph.D., Full Professor, University of Maribor, Faculty of Criminal Justice and Security, Slovenia; Science and Research Centre Koper, Slovenia; bojan.ticar@fvv.uni-mb.si. ORCID: https://orcid.org/0000-0002-7225-9148.

*** Gal Pastirk, Mag. iur., Assistant, Euro-Mediterranean University, Slovenia; University of Maribor, Faculty of Economics and Business, Slovenia; gal.pastirk@um.si. ORCID: https://orcid.org/0009-0001-7877-639X.

©2026 The Author(s) and the Publisher. This is an open access article distributed under the terms of the CC BY-NC-ND 4.0 licence.

1 INTRODUCTION

The rapid development of artificial intelligence (hereinafter: AI) has become a topic of research across all academic fields.

The McKinsey Global Institute predicted that the development of AI will be about 10 times faster and 3,000 times more impactful than the first industrial revolution.[1] Such substantial advances in high technology have captured the public's attention in a meaningful way. Until recently, as a narrow area of expertise, it has not attracted interest outside research institutions. The advent of this new technological era has led to a paradigm shift, making AI pervasive today. Various actors in society are endeavouring to capitalise on the opportunities presented by the novel technology. Corporations especially recognise this technology as a way of enhancing their business processes and, in turn, reap higher profits. Countries around the world are implementing strategies to harness AI, and thus it holds a central place in recent professional and research debates.[2]

The increasing power and capabilities of AI systems are creating fresh opportunities to intervene in all social systems.

In the future, the operation of AI systems will have to be addressed at an accelerated pace in both the technological and legal fields. Establishing an appropriate legal framework to ensure the safe use of all AI systems while permitting the further development of new technologies for even more effective and efficient use in specific sectors is essential.[3] Implementing clear legal guidelines will facilitate the management of systems that rely on AI.

Recent scholarly discourse has increasingly emphasised that AI has the potential to transform the premises underlying courts and judicial decision-making fundamentally.[4] In this context, the European Union (hereinafter: EU or Union) has been particularly proactive in regulating emerging technologies, seeking to ensure that their development and deployment remain aligned with the Union's core values, notably the protection of fundamental rights, the rule of law, and human dignity. This value-oriented regulatory approach reflects the EU's broader ambition to shape technological innovation through law rather than merely responding to its consequences.[5] Against this background, the adoption of the Artificial Intelligence

1 Sam Mitha, "Robots, Technological Change and Taxation," Taxjournal, accessed September 14, 2017, https://www.taxjournal.com/articles/robots-technological-change-and-taxation-14092017.

2 Kai-Fu Lee, "Velesili umetne inteligence: Kitajska, Silicijeva dolina in novi svetovni red", in *Law and Artificial Intelligence: Regulating AI and Applying AI in Legal Practice*, eds. Bart Custers, and Eduard Fosch-Villaronga (Ljubljana: UMco, 2019).

3 Andreja Primec, "Robot – sodelavec ali stroj?," in *Pravo in ekonomija: Digitalno gospodarstvo*, ed. Martina Repas (Maribor: Univerzitetna založba Univerze v Mariboru, 2020), 37-50.

4 Natali Helberger, "The Rise of Technology Courts, or: How Technology Companies Re-invent Adjudication for a Digital World," *Computer Law & Security Review* 56 (2025).

5 Andreja Primec and Gal Pastirk, "Safeguarding Human Rights in the Digital Era: Legal and Ethical Perspectives on Data Protection and User Rights," in *Ethics, Justice, and Governance in the Age of AI and Digital Societies*, ed. Maja Pucelj (IGI Global, 2026), 27-60.

Act (hereinafter: AI Act) [6] as the first comprehensive legislative instrument in this field represents a significant milestone in the regulation of AI. The discussion below provides a concise outline of the act's significance and potential implications.

Equally important are legal and ethical issues spanning data protection, privacy loss, discrimination, cybersecurity, and algorithmic bias. A particular challenge arises when AI learns from a human who has acted in a biased way in the past, since such a system may replicate or even reinforce those biases. Added to this is the complex issue of liability, notably when it comes to incorrect or socially harmful decisions made by intelligent systems. Dilemmas also arise about which legal mechanisms are appropriate for providing adequate protection against the negative consequences of wrong and detrimental decisions by AI systems.[7] In parallel with the rapid development of AI, a wider range of advanced digital technologies has been integrated into corporate operations, progressively influencing how companies organise decision-making, manage risks, and ensure compliance. These technologies are characterised by their global reach, networked architecture, and increasing degree of automation, which raise fundamental questions about the adequacy of existing legal and governance frameworks.[8]

Inevitably, many more changes are to follow, influencing new social and legal norms that respond to the complex governance of new technologies.[9] In the future, as these systems become increasingly intelligent, society will see substantial changes. Ethical principles and respect for fundamental rights must guide the emergence of AI technology.[10]

The development of AI has given rise to several significant new legal challenges that often outpace legal development in the context of rapidly evolving technology. This can create considerable risks, especially when legal change is not fast enough to respond to technological advancements in a timely manner. Conversely, legal change can hinder technological progress if it occurs too rapidly.[11] The legal system's primary responsibility is to balance these two factors, primarily through effective regulation.

---

6 Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), OJ L 2024/1689, 12.7.2024.

7 Gal Pastirk and Andreja Primec, "Pravni izzivi uporabe klepetalnega robota ChatGPT," in *Digitalna ekonomija in pravo 2023: Študentsko posvetovanje o ekonomskih in pravnih izzivih digitalne preobrazbe: zbornik recenziranih znanstvenih prispevkov,* ed. Dejan Romih (Maribor: Društvo ekonomistov, 2023), 89-104.

8 Edita Čulinović-Herc, "Kako osigurati primjenu etične blockchain tehnologije u trgovačkom društvu," *Zbornik Pravnog fakulteta u Zagrebu* 72, no. 1-2 (2022): 157-188.

9 Fouad Daidai and Larbi Tamine, "Artificial Intelligence and Corporate Governance," in *18th International Conference on Persuasive Technology,* eds. Felix Nti Koranteng, Nilufar Baghaei and Sandra Bur (Eindhoven: CEUR-WS.org, 2023).

10 Primec, "Robot – sodelavec ali stroj?," 37-50.

11 Ernest Lim and Phillip Morgan, *The Cambridge Handbook of Private Law and Artificial Intelligence* (Cambridge: Cambridge University Press, 2024).

The development of regulatory guidelines is ongoing, and the EU is leading in this process. On 13 June 2024, the AI Act was adopted, introducing a comprehensive and horizontal legal framework for regulating AI. Adoption of the AI Act is a significant legal milestone as it regulates various aspects of the development, deployment and use of AI within the EU. The regulation entered into force on 1 August 2024, with its provisions set to apply gradually from 2025 onwards.[12] The AI Act establishes an initial framework for regulating the use of AI across the EU and is the world's first comprehensive legislation in this area.[13] A key strength of this regulatory approach lies in its focus on the use of AI systems and their effects, rather than on the technology as such. Against this background, the AI Act introduces a risk-based approach that differentiates legal obligations based on the nature and intensity of risks associated with AI use. Although the AI Act does not explicitly regulate the use of AI at the corporate board level, it represents a shift from predominantly self-regulatory practices to binding legal standards. By establishing obligations related to risk management, transparency, and human oversight, the AI Act indirectly affects corporate governance and the understanding of directors' duties of care and oversight in relation to AI-related risks.[14]

The future evolution of law will be closely linked to novel insights into AI, and the law must adapt to them without delay. The rapid pace of scientific and technological development already calls for a corresponding pace of adaptation in legal regulation.[15]

One critical area in which this legal adaptation is especially pressing is corporate governance, where AI technologies are reshaping decision-making and risk management. Discussions here examine the significance of AI in corporate governance, with attention to the heightened responsibilities of governing bodies arising from new risks associated with AI technologies. The multiple challenges in AI development faced by corporate decision-makers are further complicated by emerging regulatory frameworks governing these technologies.

To explore this issue, the paper adopts a case study approach by analysing the annual reports of selected companies. The findings show that companies have already begun to address management responsibilities through AI. The growing importance of a robust legal framework and sound corporate practices for effective risk management is thereby revealed.

12 European Commission, "Updated EU AI Model Contractual Clauses," accessed March 10, 2025, https://public-buyers-community.ec.europa.eu/communities/procurement-ai/resources/updated-eu-ai-model-contractual-clauses.

13 European Commission, "AI Act," accessed September 3, 2024, https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai.

14 Maria Lillà Montagnani and Maria Lucia Passador, "Fiduciary Duties and Business Judgment Rule 2.0 in the AI Act Age," accessed February 3, 2026, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5714102.

15 Pastirk and Primec, "Pravni izzivi," 89-104.

2 ARTIFICIAL INTELLIGENCE IN CORPORATE GOVERNANCE

2.1 The Impact of Artificial Intelligence on Corporate Governance

The ever-greater adoption of AI in various industries has led to more companies considering ways to integrate AI into their business operations.[16] Such development holds implications for various corporate areas, including strategic direction, risk management, stakeholder relations, and regulatory compliance. These areas require careful attention from company management structures. It is imperative to acknowledge that AI systems within corporate entities are relied on to perform complex, strategic tasks, thereby amplifying the risks and underscoring the need for a thorough examination of this subject.

AI technology is chiefly used in companies to provide advice and sometimes as a decision-making system. With respect to the latter, AI carries out decisions without direct human intervention. This means that the governing bodies must critically evaluate AI performance to maintain control over key decisions. Regarding AI advisory systems, the primary function of AI is to support decision-making processes. The function of such a system is to provide management with backing through the collection and analysis of data and the subsequent generation of recommendations.[17] The integration of AI systems can enhance the strategic decision-making processes of governing bodies by predicting situations that might not be readily foreseeable to humans in legal or business contexts. The utilisation of AI has been demonstrated to support corporate decision-making processes, including mergers, acquisitions, negotiations and competition policy, with greater efficacy. By employing advanced algorithms derived from historical data analysis, it is possible to develop models that simulate various future stakeholder reactions and the ramifications of business decisions. This approach enables the simulation of potential outcomes, in turn formulating strategies that align with the company's interests and assure more effective corporate governance.[18]

The governing body must understand the system's functionality, which makes it advisable to acquire further information as needed, given that the operation of these systems is often not transparent. Of paramount importance is that the governing bodies retain the decision-making authority. Given the frequent obscurity of the algorithms underpinning AI systems and the lack of user insight into their operations,

16 White & Case, "Key Considerations for Updating 2023 Annual Report Risk Factors," accessed December 20, 2024, https://www.whitecase.com/insight-alert/key-considerations-updating-2023-annual-report-risk-factors.

17 "Verantwortung für Leitungsorgane beim Einsatz von AI," accessed March 3, 2025, https://schalast.com/de/hot-topics/artifical-intelligence/verantwortung-fuer-leitungsorgane-beim-einsatz-von-ai.php. Andreja Primec, Gal Pastirk and Igor Perko, "Sovereignty Over Personal Data: Legal Frameworks and the Quest for Privacy in the Digital Age," in *Balancing Human Rights, Social Responsibility, and Digital Ethics*, eds. Maja Pucelj and Rado Bohinc (IGI Global, 2024), 168-198.

18 David Hron, "Rozhraní justiční praxe a umělé inteligence: evoluce a výzvy," accessed December 18, 2024, https://advokatnidenik.cz/2024/09/01/rozhrani-justicni-praxe-a-umele-inteligence-evoluce-a-vyzvy/.

AI outputs must not serve as the exclusive basis for significant business decisions. Instead, such technology must be used as a complementary tool to enhance decision-making quality rather than to replace managerial authority.[19] Such an understanding of the role of AI extends beyond its operational use. It raises questions about the fundamental premises of corporate governance, particularly the relationship between technology-supported processes and human judgment in decision-making. Within corporate law, AI is regarded as a supportive tool whose deployment requires adjustments to existing governance structures, without affecting their underlying normative framework.[20] Successful implementation of AI in the business environment can make decision-making processes more efficient and generate added value. To fully reap the benefits of AI, companies must establish robust corporate governance structures that incorporate ethical principles and social considerations.[21]

To prepare for the changes that AI will bring, companies are recommended to take the following steps:

a. Control: Companies must be able to identify and assess potential risks associated with using AI, including ethical, legal and operational risks.

b. Compliance and governance: Appropriate measures need to be implemented to ensure compliance with AI-related legislation, including fairness, transparency, and accountability.

c. Stakeholder impact: It is vital to consider how AI will impact different stakeholders, including workers, customers, and broader society.[22]

The speed at which AI is being developed brings both opportunities and risks for businesses, and two contradictory dilemmas arise regarding the use of modern technologies. The first is whether a company is acting in the best interests of society by choosing not to implement AI, and, more specifically, whether it would be in breach of its duty of care if it were to implement it. Second, and more importantly, there is the question of whether the hasty, premature introduction of such technology could be regarded as careless or even reckless, given the risks and unknowns surrounding its development. This could also carry the same legal consequences, namely the legal duty of care owed by management, which could be questioned. Such dilemmas concern companies involved in the IT sector and the broader field of research and development. Company management structures must therefore fully understand the strategic implications of AI, including both potential competitive advantages and inherent risks. Alongside its business implications, the advent of AI will bring far-reaching consequences for work processes, legal compliance, and the broader societal context, including its impact on employees and the environment.[23]

19 Schalast, "Verantwortung für Leitungsorgane."

20 Mihaela Braut Filipović and Ivan Zornada, "Umjetna inteligencija i pravo društava," in *Nove tehnologije i pravo društava,* ed. Jakša Barbić (Zagreb: Hrvatska akademija znanosti i umjetnosti, 2022), 215-236.

21 Daidai and Tamine, "Artificial Intelligence and Corporate Governance."

22 Kevin LaCroix, "Artificial Intelligence and Corporate Boards," accessed December 18, 2024, https://www.dandodiary.com/2024/07/articles/corporate-governance/artificial-intelligence-and-corporate-boards/.

23 Lim and Morgan, *The Cambridge Handbook*, 429-430.

2.2 Artificial Intelligence and Corporate Risk Disclosure Practices

2.2.1 Trends in Artificial Intelligence Risk Disclosure Practices in Corporate Reporting

The growing use of AI in corporate operations has expanded the range of risks that companies are expected to identify and manage. Where AI plays a material role in corporate strategy, decision-making or compliance, the responsibilities of directors extend beyond the internal organisation and supervision of such systems to include how the resulting risks are addressed in corporate reporting. In this sense, corporate disclosures form an integral part of the broader framework of directors' responsibilities regarding the use of AI. This aspect of directors' responsibility has become particularly visible in the context of capital markets law, where publicly listed companies are subject to extensive disclosure requirements *vis-à-vis* investors. It should be emphasised at the outset that these requirements primarily apply to listed companies and do not extend, at least not in a comparable form, to non-listed entities. Accordingly, the disclosure of AI-related risks cannot be regarded as a universal regulatory solution, but rather as a specific mechanism linked to market transparency and investor protection. Against this background, the following section examines emerging trends in the disclosure of AI-related risks in corporate reporting.

The incorporation of AI into corporate reporting, therefore, calls for a cautious and structured approach. [24] Decisions concerning the use of AI within a company, including its role in strategic, operational and compliance-related processes, inevitably shape the company's risk profile and are reflected in corporate disclosures. In this respect, responsibility for the accuracy, balance and credibility of AI-related disclosures ultimately rests with the company's management. This highlights that reporting on AI-related risks is not merely a formal compliance exercise, but a substantive aspect of responsible corporate governance.

In recent years, technology company executives have joined in a clear trend of emphasising the positive effects of AI. There is a tendency for companies to self-promote as well-positioned to exploit AI's potential.[25] While this offers considerable opportunities, it also creates the potential for complex challenges and new risks, especially in the early stages of the technology's development. As a result, alongside the prevailing optimism, companies have started to warn of the potential risks AI may pose to their business.[26] Companies must address the risks associated with AI comprehensively, as investors and regulatory agencies are increasingly scrutinising how companies integrate AI into their business processes and report on it in

24 Arvin Maskin et al. "Generative Artificial Intelligence and Corporate Boards: Cautions and Considerations," Mayer Brown, accessed January 17, 2025, https://www.mayerbrown.com/en/insights/publications/2023/06/generative-artificial-intelligence-and-corporate-boards-cautions-and-considerations.

25 Justin Dawes, "Airbnb, Uber, Booking, Hilton: The Risks AI Poses on Business," accessed February 13, 2025, https://skift.com/2024/03/01/airbnb-uber-booking-hilton-the-risks-ai-poses-on-business.

26 White&Case, "Key Considerations."

mandatory disclosures.[27]

In this context, companies have become more transparent in their annual reports, disclosing potential risks associated with the emergence of AI. Current regulations mandate that any factors relevant to assessing the company's assets and liabilities, financial position, and profit or loss be included in the section on risk factors.[28] This enables company management to protect its legal position against potential shareholder lawsuits.

It has thus become common for prominent technology companies to incorporate or revise AI-related warnings in their annual reports, particularly in the risk factors section.[29]

The Securities and Exchange Commission (hereinafter: SEC) has stressed the growing importance of precise disclosure of AI use.

Pursuant to SEC regulations, public companies in the United States of America must periodically disclose information about their businesses and associated risks. Annual reports must consequently include disclosures of any substantial risks that hold the potential to adversely impact the company.[30] Such risks may also emanate from the utilisation of AI, forcing companies to disclose risks where they may exert a material influence on the company's business.[31]

Given the widespread advancements and growing use of AI across various sectors, the SEC has acknowledged AI as a potential risk factor in the financial industry. It has introduced stricter controls to manage its influence on business. The SEC recently unequivocally signalled its expectation that companies will more accurately disclose the impact of AI on their business and identify the risk factors associated with its use in their annual reports.[32]

Ever more large corporations have started to incorporate AI into their annual reports. Recent surveys have shown a clear rise in companies acknowledging the

27 LaCroix, "Artificial Intelligence and Corporate Boards."

28 Brody Ford, "Nvidia, Microsoft, Meta Warn Investors AI is a Risky Financial Bet," Bloomberg, accessed February 12, 2025, https://www.bloomberg.com/news/newsletters/2024-07-03/nvidia-microsoft-meta-warn-investors-that-ai-poses-financial-risks?srnd=technology-vp.

29 Andreja Primec, Bojan Tičar and Gal Pastirk, "Imperatives for Corporate Leadership: Navigating Ethical AI Governance in the Age of Rapid Technological Advancement," in *2nd Scientific Conference: Corporate Social Responsibility of Directors in Euro-Mediterranean Region, in Current and Future Green and Digital Transformation,* eds. Rado Bohinc, Bojan Tičar and Anita Hrast (Koper: Znanstveno-raziskovalno središče Koper, Annales ZRS, 2024), 30-31.

30 Erik Gerding, "The State of Disclosure Review," US Securities and Exchange Commission, accessed February 18, 2025, https://www.sec.gov/newsroom/speeches-statements/gerding-statement-state-disclosure-review-062424#_ftn10.

31 "Largest Companies View AI as a Risk Multiplier: From Cybersecurity, Regulatory, and Competition to Reputation, Ethics, and Intellectual Property," Deloitte and USC Marshall School of Business Peter Arkley Institute for Risk Management, accessed February 25, 2025, https://uscmarshallweb.s3-us-west-2.amazonaws.com/assets/uploads/s1/files/deloitte_arkley_report_final_october_2024_huniotst6b.pdf.

32 Sidley, "Artificial Intelligence: U.S. Securities and Commodities Guidelines for Responsible Use," accessed February 10, 2025, https://www.sidley.com/en/insights/newsupdates/2025/02/artificial-intelligence-us-financial-regulator-guidelines-for-responsible-use.

potential risks AI brings to their business. SEC Chairman Gary Gensler cautioned public companies against 'AI-washing', namely, the misrepresentation of their AI capabilities or the dissemination of deceptive statements about the role of AI in their business operations. This phenomenon has been likened to 'greenwashing' in the context of ESG, a practice that has drawn greater scrutiny from the SEC in recent years. Gensler emphasised that public disclosures by companies as to their AI capabilities are subject to the provisions of securities laws and must be comprehensive, fair and truthful.[33]

Such warnings counterbalance the over-promotion of AI, underline the need for the responsible representation of its actual capabilities and risks, and a considered evaluation of its role in business process.[34]

2.2.2 A Case Study of AI Risk Disclosure in Corporate Reports of Selected Companies[35]

This section presents the main findings from the analysis of the annual reports of selected companies, showing how they address the risks, regulatory challenges, and ethical considerations related to the use of AI in their businesses.

Microsoft's 2022 Annual Report, for instance, identifies potential risks associated with the development and use of AI, including weaknesses in the algorithms themselves, potential biases in underlying databases, and inappropriate practices in AI development and use. These issues have the potential to cause reputational damage or legal liability. The report also stresses ethical concerns arising from AI use. These moral concerns may pertain specifically to the impact on human rights.[36]

A comparison of the 2022 Annual Report with the 2024 Annual Report reveals that the latter identifies AI as the company's core technology focus. However, several risks remain, as identified in the 2022 report. The difference is most noticeable in the AI treatment in the 2024 report. Strong emphasis is placed on the intense competition around AI development, which could significantly impact Microsoft's business.

A key part of the 2024 report examines new laws that might affect the company's work. It discusses the AI Act and presidential orders that could substantially impact how businesses operate and how much they cost. It also discusses how data protection, consumer protection, and intellectual property laws, which are becoming increasingly critical for the development and use of AI, might affect the company. The report states that the AI Act could affect the cost of AI models and services and their

33 White&Case, "Key Considerations."

34 Ford, "Nvidia, Microsoft."

35 This section examines the disclosure of AI -related information in the annual reports of selected US-based companies. The selection is based on the observation that these companies, partly due to regulatory requirements, often provide more detailed insights into the use of AI and its impact on business operations.

36 "FORM 10-K for the Fiscal Year Ended June 30, 2022, Microsoft," accessed January 25, 2025, https://www.sec.gov/Archives/edgar/data/789019/000156459022026876/msft-10k_20220630.htm.

performance in the European market, a vital factor in Microsoft's strategic decisions. The report also discusses the legal aspects, as well as the risks associated with bias in AI models. This is because they may cause unintended effects and raise ethical dilemmas, harming the company's business and reputation. The report also looks at cybersecurity issues, as AI can increase the likelihood of cyberattacks, misuse, and unauthorised access to data.[37]

Meta's 2022 annual report outlines a substantial investment in AI and acknowledges the possibility of increased regulatory and governmental scrutiny arising from these proposed initiatives.[38] The potential for legal disputes and ethical issues to harm the company's business, reputation and financial results remains a concern. In comparison, Meta's 2024 annual report provides a more comprehensive discussion of the challenges associated with AI. Given the company's strategic emphasis on integrating AI into all business segments, this topic is anticipated. The report highlights several risks inherent to AI implementation, particularly the substantial cost of deploying it and the uncertainty around its long-term financial benefits. The report emphasises the regulatory framework, citing the AI Act and acknowledging the difficulty of predicting how courts and regulators will approach existing AI legislation. It also cautions that additional resources may be needed to adapt to new legal frameworks and adjust offerings in individual jurisdictions if AI legal frameworks are not internationally harmonised.[39]

Uber's annual report identifies weaknesses and inconsistencies in its datasets that could lead to inaccurate findings or unintended discriminatory outcomes.[40] Further, the utilisation of data can influence AI performance in potentially questionable ways. Such practices may affect litigation. In its 2024 Annual Report, Uber elaborates on the risks associated with AI, particularly in the context of emerging legislation where companies' obligations are not yet entirely clear. The AI Act is a particular focus, with the report noting that its implementation will require further adjustments to business practices. The report highlights the potential repercussions of non-compliance with the new legislation, including legal proceedings, investigations, and sanctions that could harm the company's business. In addition, Uber emphasises the risks of AI, including the potential for discriminatory or biased decision-making and data protection challenges.[41]

37 "FORM 10-K for the Fiscal Year Ended June 30, 2024, Microsoft," accessed January 25, 2025, https://microsoft.gcs-web.com/static-files/1c864583-06f7-40cc-a94d-d11400c83cc8.

38 "FORM 10-K for the Fiscal Year Ended December 31, 2022, Meta Platforms," accessed January 25, 2025, https://www.sec.gov/Archives/edgar/data/1326801/000132680123000013/meta-20221231.htm.

39 "FORM 10-K for the Fiscal Year Ended December 31, 2024, Meta Platforms," accessed January 25, 2025, https://www.sec.gov/Archives/edgar/data/1326801/000132680125000017/meta-20241231.htm.

40 "FORM 10-K for the Fiscal Year Ended December 31, 2021, Uber Technologies," accessed January 25, 2025, https://www.sec.gov/Archives/edgar/data/1543151/000154315122000008/uber-20211231.htm.

41 "FORM 10-K for the Fiscal Year Ended December 31, 2024, Uber Technologies," accessed January 25, 2025, https://www.sec.gov/Archives/edgar/data/1543151/000154315125000008/uber-20241231.htm.

Nvidia's annual report identifies AI as a potential risk, highlighting the possibility of brand harm and a negative impact on the company's competitiveness. Consequently, introducing additional compliance measures to ensure adherence to legal requirements would increase costs.[42] More recent annual reports from Nvidia provide a somewhat more detailed account of the potential risks associated with AI. Once again, the report includes warnings about rapidly changing legislation in both the EU, where the AI Act is mentioned, and the USA, where executive orders on AI are highlighted. As regards the AI Act, the report emphasises that it could impose demanding obligations that may disproportionately affect Nvidia and require the company to adopt specific business practices. Other risks linked to AI are also identified, such as data protection concerns and geopolitical changes. The report further stresses the ethical risks of generative AI, particularly regarding copyright infringement, model bias, and privacy concerns.[43]

2.3 An Overview of Directors' Liability in Corporate Law

In the Slovenian legal order, directors' position and liability are regulated by the Companies Act (*Zakon o gospodarskih družbah* – ZGD-1).[44] While Croatian law regulates this matter in the Corporations Act (*Zakon o trgovačkim društvima* – ZTD),[45] it is essential to note that both the Slovenian ZGD-1 and the Croatian ZTD are based on legislative frameworks and practices influenced by German corporate law. Accordingly, their general regulation of liability closely resembles the provisions of Article 93 of the German Stock Corporation Act (*Aktiengesetz* – AktG).[46] A similar regulatory framework is also found in Article 84 of the Austrian Stock Corporation Act (*Aktiengesetz* – AktG (AT)),[47] reflecting the pronounced influence of German legal principles on normative regulation of this area in the region.[48]

The German legal framework establishes a standard of care in Article 93(1)

42 "FORM 10-K for the Fiscal Year Ended January 30, 2022, NVIDIA," accessed January 25, 2025, https://www.sec.gov/Archives/edgar/data/1045810/000104581022000036/nvda-20220130.htm.

43 "FORM 10-K for the Fiscal Year Ended January 28, 2024, NVIDIA," accessed January 25, 2025, https://www.sec.gov/Archives/edgar/data/1045810/000104581024000029/nvda-20240128.htm.

44 Companies Act [*Zakon o gospodarskih družbah*], Official Journal of the Republic of Slovenia, no. 65/09, 33/11, 91/11, 32/12, 57/12, 44/13, 82/13, 55/15, 15/17, 22/19, 158/20, 18/21, 18/23, 75/23, 102/24.

45 Companies Act [*Zakon o trgovačkim društvima*], Official Journal of the Republic of Croatia, no. 111/93, 34/99, 121/99, 52/00, 118/03, 107/07, 146/08, 137/09, 111/12, 125/11, 68/13, 110/15, 40/19, 34/22, 114/22, 18/23, 130/23, 136/24.

46 *Aktiengesetz* of September 5, 1965, BGBl. I S. 108., with last amendments of October 23, 2024, BGBl. 2024 I Nr. 323.

47 *Aktiengesetz* of May 6, 1965, BGBl. Nr. 98/1965, with last amendments of December 30, 2023, BGBl. I Nr. 178/2023.

48 Peter Podgorelec, "Odškodninska odgovornost članov poslovodstva - analiza nekaterih sodb Vrhovnega sodišča RS," *Podjetje in delo* 39, no. 5 (2013): 763-791. Igor Periša and Sanja Katušić Jergović, *Odgovorne osobe trgovačkih društava kapitala i određivanje djelokruga njihovih poslova* (Zagreb: Pravosudna akademija, 2018).

of AktG, which is to be assessed according to the type and scope of an individual company. In addition to the standard of care, this statutory provision contains a general duty of care clause. Additional obligations may be derived from this clause, subject to a given company's circumstances and the specific situation.[49]

Along with the 2005 reform of stock corporation law, Germany amended the first paragraph of Article 93 of AktG, aligning with the Anglo-American legal system that had established the business judgment rule.[50] Under the AktG today, a management board member is not considered to have breached their duties if, while making a business decision, they could reasonably assume, based on appropriate information, that they were acting in the best interests of the company. Since 2010, a similar provision has been in force in the Croatian ZTD. However, the business judgment rule is not codified in ZGD-1, Slovenia's legal system. Instead, it was initially (and only partly) introduced by the Supreme Court of the Republic of Slovenia in a 2010 judgment[51] and later confirmed in a 2013 judgment.[52]

The general liability of members of the management and supervisory bodies for damage incurred by the company in the performance of their duties is regulated by Article 263 of ZGD-1. The article establishes the general liability standard for members of these bodies. The content of Article 263 comes with imperative provisions that may not be derogated from in the articles of association or by contract.[53] The first paragraph of Article 263 provides that members of the management or supervisory body shall act with the diligence of a conscientious and honest businessperson and safeguard the company's trade secrets while performing their duties on behalf of the company. This provision outlines core conduct duties, commonly known as the duty of care (German: *Sorgfaltspflicht*) and the duty of loyalty (German: *Treupflicht*).[54]

A similar regulation applies to directors in the Croatian legal system. Under Article 252 of ZTD, management board members must manage the company's affairs with the diligence of a conscientious and honest businessperson and safeguard the company's trade secrets. Moreover, a member of the management board is not deemed to have breached their obligations regarding the management of the company's affairs if, while making a business decision, they could have reasonably assumed, based on appropriate information, that they were acting in the company's best interests.[55] In the

49 Schalast, "Verantwortung für Leitungsorgane". Stephan Fischer, *Die Business Judgment Rule als typübergreifendes Institut* (Berlin: Duncker & Humblot, 2018).

50 Karin Klein, "Die Business Judgment Rule im Deutschen Aktienrecht," *Türk-Alman Üniversitesi Hukuk Fakültesi Dergisi* 1, no. 1 (2019): 111-132.

51 Supreme Court of the Republic of Slovenia, III Ips 75/2008 of December 21, 2010.

52 See Supreme Court of the Republic of Slovenia, III Ips 80/2010 of July 9, 2013. See also Borut Bratina, "Interes delniške družbe in družbeno odgovorno poslovanje," in *Družbena odgovornost in pravo: liber amicorum,* ed. Bojan Tičar (Koper: Znanstveno-raziskovalno središče, Annales ZRS, 2024), 85-103.

53 Saša Prelič and Peter Podgorelec, "Splošna (korporacijska) pravila o odškodninski odgovornosti organov vodenja in nadzora," in *Zbornik 2011: 3. strokovno srečanje Aktualna vprašanja insolvenčnega prava,* ed. Franci Ramšak (Ljubljana: GV založba, 2011), 67–78.

54 Peter Podgorelec, "Pravilo podjetniške presoje in odškodninska odgovornost članov uprave banke," *Podjetje in delo* 41, no. 3/4 (2015): 445-461.

55 Companies Act [*Zakon o trgovačkim društvima*], Official Journal of the Republic of Croatia,

event of a breach of duty by directors, the issue of their liability for damages arises. However, ZTD does not give any indication as to how the management board should direct the company. It is commonly accepted that the company's purpose determines this direction. Namely, the management board and its members must strive to achieve the company's purpose with the diligence of conscientious, honest businesspeople.[56]

2.4 Is Artificial Intelligence a New Dimension of Directors' Liability?

The obligations of directors regarding the use of AI are not explicitly regulated under current corporate legislation. As a result, questions concerning directors' liability must be addressed by interpreting existing statutory duties and applying general principles of corporate law. In this context, the assessment of directors' conduct necessarily depends on the specific circumstances of the individual company. The scope of directors' duties in relation to AI must be assessed in light of the company's organisational structure, size, sector of activity, technological maturity, and risk exposure.[57]

The decision to introduce AI into operational processes constitutes a strategic choice with significant organisational and governance implications.[58] In light of the risks associated with the deployment of AI, directors are required to ensure that the company establishes appropriate organisational, technical and supervisory arrangements governing its use. Nevertheless, AI may significantly affect the interpretation and practical application of existing liability standards within corporate law, notably the duty of care owed by members of management and supervisory bodies.

From a corporate law perspective, the introduction of AI into corporate decision-making does not alter the fundamental attribution of decisions to natural persons entrusted with management and supervisory functions. AI cannot assume an autonomous role in corporate governance, nor can it serve as an independent decision-maker. Its increasing use instead introduces an additional, technologically mediated layer between information and human judgment, thereby reinforcing the importance of clear attribution of responsibility within the company's governance structure.[59]

Comparative legal scholarship increasingly emphasises that the emergence of AI constitutes a legally relevant circumstance that affects the assessment of directors' conduct within the scope of their statutory duties. Where AI shapes the

no. 111/93, 34/99, 121/99, 52/00, 118/03, 107/07, 146/08, 137/09, 111/12, 125/11, 68/13, 110/15, 40/19, 34/22, 114/22, 18/23, 130/23, 136/24.

56 Nina Tepeš and Antun Bilić, "The Purpose of a Company," *InterEULawEast: Journal for the International and European Law, Economics and Market Integrations* 9, no. 2 (2022): 223-268.

57 Schalast, "Verantwortung für Leitungsorgane."

58 Jeanne Boillet, "Why AI is Both a Risk and a Way to Manage Risk," accessed January 12, 2025, https://www.ey.com/en_qa/insights/assurance/why-ai-is-both-a-risk-and-a-way-to-manage-risk.

59 Braut Filipović and Zornada, "Umjetna inteligencija i pravo društava," 215-236.

informational basis of corporate decision-making, it becomes a relevant element in assessing whether directors have ensured an adequate framework of governance and oversight.[60] The technical autonomy of AI systems does not diminish the continuing responsibility of corporate management and supervisory bodies to maintain effective oversight structures.[61] The decisive issue is thus not whether directors may rely on AI, but the conditions under which such reliance remains compatible with their duty of care. By altering the informational environment within which corporate decisions are formulated, AI significantly influences directors' information-gathering, evaluation, and oversight capabilities.[62]

Although advanced algorithmic systems may enhance the efficiency and analytical capacity of decision-making, they also entail specific risks related to data quality, model constraints, opacity and the perceived objectivity of automated outputs. As a result, the duty of care increasingly extends to the organisation and supervision of decision-making processes themselves. Directors are accordingly required to ensure that algorithmically generated information is sufficiently reliable, contextually appropriate and subject to effective human review. In certain circumstances, failing to employ appropriate technological tools may constitute a breach of duty, particularly when such tools represent a reasonable means of supporting informed decision-making. Conversely, uncritical reliance on AI may equally infringe the duty of care where directors relinquish independent judgment or fail to appreciate the system's limitations.[63]

The management of a company possesses considerable discretion, and it is essential that decisions are made based on relevant information and that the company's best interests are prioritised. Acting with due care requires establishing appropriate oversight mechanisms and internal procedures governing the use of AI within the company.[64] This includes an assessment of whether, and under which conditions, specific tasks may be appropriately supported by AI, considering efficiency, reliability and potential conflicts of interest. This is particularly relevant when AI can perform activities more efficiently, with reduced exposure to certain forms of human error and operational risk, or, more neutrally, to the risk of a conflict of interest.[65]

Due diligence affects all aspects of the business, including the technologies the company employs. Therefore, AI controls must be integrated into a broader

60 Vivienne Brand, "Directors' Duties and AI Regulation," accessed January 25, 2025, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5238892. Alfred R. Cowger, Jr., "Corporate Fiduciary Duty in the Age of Algorithms," *Journal of Law, Technology & the Internet* 14, no. 2 (2022-2023): 136-207.

61 Brand, "Directors' Duties."

62 Lim and Morgan, *The Cambridge Handbook*, 422-426.

63 Cowger, Jr., "Corporate Fiduciary Duty," 136-207.

64 Hendrik Schulte, "Die Rolle künstlicher Intelligenz in der Unternehmensleitung: Ein Ausblick auf Vorstands- und Aufsichtsratsarbeit in Zeiten künstlicher Intelligenz," accessed January 17, 2025, https://www.fch-gruppe.de/Beitrag/22646/die-rolle-kuenstlicher-intelligenz-in-der-unternehmensleitung-?id=22646.

65 Schulte, "Die Rolle künstlicher Intelligenz."

risk management framework. This means managers must be cognizant of the AI's repercussions for the company's strategic direction, regulatory compliance, and ethical concerns, and ensure that appropriate precautionary measures are in place to manage the associated risks.[66]

The development of AI is increasingly reshaping the duty of care owed by directors, as technological progress gradually interferes with the traditional understanding of fiduciary responsibility. Changes to classical doctrines of corporate law, particularly directors' duties, are primarily driven by the new capabilities that contemporary AI systems introduce into corporate operations. Given the growing significance of AI, directors can no longer be viewed solely in their traditional role of managing the company's operations and determining its strategic direction.[67] In the contemporary corporate environment, their responsibility increasingly extends to overseeing the use of technological tools that significantly influence organisational processes, decision-making, and resource allocation. The substance of the duty of care is therefore not transformed in its core but instead adjusted to the new conditions under which it is exercised. In many AI systems, their mode of operation remains difficult to understand or only partially explainable, even for experts professionally engaged in their development and use. For this reason alone, it must be emphasised that members of corporate management bodies are not expected to possess specialised technical expertise in AI.[68] What is expected instead is that they have sufficient understanding of the essential characteristics of these systems to enable responsible and informed assessment of their use. Such understanding constitutes a prerequisite for the active, rather than merely formal, exercise of supervisory functions within a technologically conditioned governance environment.

In this context, the duty of care primarily requires directors to assess whether the deployment of AI systems is consistent with the company's objectives, its ethical commitments, and applicable legal constraints. This presupposes at least a basic familiarity with the type and purpose of the systems used, the origin and nature of the data on which they rely, the potential risks of discriminatory effects, and the governance implications arising from limited explainability. Significantly, the emphasis shifts from purely reactive responses to risks that have already materialised towards the *ex-ante* structuring of oversight mechanisms around foreseeable areas of exposure, particularly for high-impact companies introducing opaque algorithmic systems into corporate decision-making. This approach aligns with the Delaware Supreme Court's reasoning in *Marchand v. Barnhill*, which underscores that directors must make a good-faith effort to establish reasonable board-level monitoring systems

66 Holly J. Gregory, "AI and the Role of the Board of Directors," Harvard Law School Forum on Corporate Governance, accessed February 12, 2025, https://corpgov.law.harvard.edu/2023/10/07/ai-and-the-role-of-the-board-of-directors/.

67 Montagnani and Passador, "Fiduciary Duties."

68 Paul Humphreys, "The Philosophical Novelty of Computer Simulation Methods," *Synthese* 169 (2009): 615-626. Emanuele Ratti, "Epistemic Control and the Normativity of Machine Learning-based Science," in *The Role of AI in Science: Epistemological and Methodological Studies,* eds. David Barack, André Curtis-Trudel and Darrell Rowbottom (Routledge, 2025).

for mission-critical risks, rather than acting only after harm has occurred.[69] Precisely because AI may generate structurally unpredictable consequences for corporate activity, technological literacy can no longer be regarded as merely desirable additional knowledge; it has become a foundational condition for lawful and legitimate corporate governance.[70]

The more extensively a company integrates AI tools into its operations and relies on them for significant business functions, the greater the responsibility borne by its directors. The level of diligence required is therefore directly linked to the intensity of use of such tools and to the degree of risk that individual AI systems pose to the company's practical and legally compliant functioning. It is incumbent upon corporate management bodies to establish appropriate governance structures and internal control mechanisms, such as transparent decision-making and oversight protocols, where heightened risks arise. In this regard, German case law, in interpreting article 93 of the *Aktiengesetz* (AktG), emphasises that the duty of care encompasses both organisational duties (German: *Organisationspflichten*)[71] and obligations of internal monitoring, and it may be expected that this standard will, in the future, evolve to encompass technological risks within increasingly complex operational environments.

Directors are therefore expected to establish appropriate structures for identifying and mitigating risks, particularly where such risks arise from systems whose operations are not readily transparent or effectively auditable. Algorithmic systems frequently operate in ways that deviate from traditional assumptions of oversight, requiring substantive awareness of areas of opacity and a transparent allocation of responsibility for their use within the organisation.

If management and supervisory bodies fail to perform their roles with the requisite level of care and do not conduct a critical assessment of the risks associated with the use of AI, such conduct may amount to a breach of fiduciary responsibility.[72] In this sense, AI does not diminish the importance of the duty of care; instead, it deepens it normatively and situates it within a more demanding, technologically conditioned regulatory and governance framework.

2.5 The AI Act and a New Dimension of Directors' Liability

The AI Act is a comprehensive regulatory instrument that establishes a unified framework for AI across the EU. Although it does not expressly identify corporate actors as its primary regulatory addressees, its operative provisions nonetheless exert a significant legal and strategic impact, particularly on listed companies active in AI-

69 Gregory A. Markel, Daphne Morduchowitz and Matthew C. Catalano, "A Director's Duty of Oversight after Marchand in "Caremark" Case," Harvard Law School Forum on Corporate Governance, accessed February 3, 2026, https://corpgov.law.harvard.edu/2022/01/23/a-directors-duty-of-oversight-after-marchand-in-caremark-case/.

70 Montagnani and Passador, "Fiduciary Duties."

71 Uwe Hüffer and Jens Koch, *Aktiengesetz* (München: Verlag C.H.Beck, 2018).

72 Montagnani and Passador, "Fiduciary Duties."

intensive sectors.[73]

Within the architecture of the AI Act, Article 6 assigns a central role to the classification of AI systems according to risk, thereby structuring the applicable regulatory obligations. These obligations vary according to the risk category assigned to a given system and include requirements relating to documentation, transparency, human oversight, and post-market monitoring. Rather than establishing a uniform regulatory standard, the AI Act introduces a graduated compliance framework in which regulatory expectations vary depending on the nature and potential impact of the AI system at issue.[74] From a governance perspective, this tiered structure reflects a differentiated regulatory approach that focuses on the concrete conditions under which AI systems are developed, deployed, and integrated into organisational processes. Within this framework, the AI Act distinguishes between four levels of risk. Certain practices are prohibited altogether under the unacceptable risk category, while high-risk systems are subject to the most stringent *ex ante* and *ex post* compliance obligations. Owing to their potential impact on fundamental rights and the integrity of the internal market, such systems are placed under a reinforced regulatory regime. Their lawful deployment presupposes the establishment of internal audit mechanisms and human-centred oversight structures to ensure traceability, transparency, and accountability throughout the system's lifecycle. Limited-risk systems are primarily governed through transparency and user information requirements, whereas minimal-risk applications are generally not subject to mandatory obligations. The regulatory burden thus increases in proportion to the perceived level of risk, with the classification determining whether an organisation must implement comprehensive risk management and human oversight mechanisms or instead ensure transparency in the use of AI.

Articles 10–14 of the AI Act further operationalise this differentiated regulatory architecture by introducing detailed obligations concerning transparency, documentation, and internal oversight of AI systems. Requirements relating to data traceability, model explainability, and the establishment of effective human oversight mechanisms embed the use of AI within formalised structures of internal control, auditability, and reporting. In this way, the regulation of AI becomes progressively intertwined with broader corporate governance and disclosure processes, particularly within companies already operating under expanded sustainability and non-financial reporting regimes.[75] Articles 14 and 29 of the AI Act further specify the risk-based approach by introducing distinct oversight and assessment obligations. Article 14

73 Paul Voigt and Nils Hullen, *The EU AI Act: Answers to Frequently Asked Questions* (Berlin: Springer, 2024).

74 Ana Mishova, "AI Risk Classification: Guide to EU AI Act Risk Categories," GDPR Local, accessed February 3, 2026, https://gdprlocal.com/ai-risk-classification/.

75 Fatma Koç, "AI in ESG Compliance: Legal Challenges Under CSRD and AI Act" (Master thesis, Tilburg University, 2025). Andreja Primec, Bojan Tičar and Gal Pastirk, „Corporate Social Responsibility of Companies and Directors in Light of New EU Legislation: CSRD, Due Diligence Directive, and Simplification Proposals," in *Investigating Directors' Accountability in Promoting Corporate Social Responsibility*, ed. Maja Pucelj, Rado Bohinc and Anita Hrast (IGI Global, 2026), 99-130.

requires continuous human oversight of AI systems throughout their lifecycle, while Article 29 imposes an obligation to conduct a fundamental rights impact assessment before deployment. In this way, the use of AI is situated within a pre-structured framework of responsibility that extends beyond purely technical compliance and incorporates a normative assessment of its effects. In this framework, the AI Act places an obligation on directors to identify and mitigate, at an early stage, risks to human dignity, personal data protection, and equality, particularly where AI systems are deployed in sensitive areas. Impact assessments operate as *ex ante* safeguards, requiring an active evaluation of risks before a system is put into use. At the same time, ongoing oversight and monitoring requirements ensure that responsibility does not end upon deployment. This combination of preventive and continuous obligations has a significant bearing on the content of governance functions within companies that integrate AI into their business processes.

Despite its formally sector-neutral design, the AI Act indirectly reshapes corporate directors' responsibilities by elevating expectations for fiduciary oversight in the context of algorithmic risk. It reinforces duties related to due diligence, risk management, and accountability in AI-enabled decision-making.[76] Moreover, the Act's extraterritorial scope under Article 2, extending to both EU-based and third-country actors, further complicates compliance strategies and requires multinational enterprises to recalibrate governance structures across multiple regulatory environments.

This orientation is not confined to the EU regulatory context. Regulatory developments in the United States and the United Kingdom increasingly emphasise accountability at the design stage of AI systems and the anticipation of algorithmic risk before material harm occurs. Despite differences in legal form and enforceability, these approaches converge around a shared normative expectation: that firms institutionalise technical and ethical governance mechanisms in advance of adverse outcomes. Taken together, this broader regulatory environment reinforces the understanding that transparency, oversight, and reporting are not merely reactive compliance tools, but integral components of preventive and accountable corporate governance in the context of AI.[77]

3 CONCLUSIONS AND FURTHER DISCUSSION

The integration of AI into business processes offers significant opportunities for companies, while simultaneously raising new legal, organisational, and ethical risks that require prudent and responsible governance. AI is no longer merely a technological innovation within contemporary corporations; it increasingly affects corporate strategy, risk management, stakeholder relations, and compliance with

76 Maria Lucia Passador, "Transcending Boundaries in the Age of International Corporate and Financial Law," *Emory International Law Review* 39, no. 2 (2025): 569-641.

77 David Bottom, "The U.S. Securities and Exchange Commission Compliance Plan for OMB Memorandum M-24-10 Applications," accessed February 3, 2026, https://www.sec.gov/files/sec-ai-compliance-plan.pdf. Montagnani and Passador, "Fiduciary Duties."

evolving regulatory requirements.

The EU has assumed a leading role in AI regulation through the adoption of the AI Act, which establishes a comprehensive, horizontal framework governing the development, deployment, and oversight of AI systems. This legislative instrument does not merely address technical aspects. Still, it situates AI within the normative space of European values and the protection of fundamental rights, emphasising the importance of human oversight, transparency, and accountability.

By contrast, the United States continues to rely on a more sectoral and decentralised regulatory approach, grounded mainly in voluntary guidelines and internal mechanisms of corporate self-regulation. Nevertheless, an analysis of the annual reports of major US corporations demonstrates that companies already perceive the AI Act as a relevant source of legal risk, confirming its global significance and its anticipated extraterritorial effects on economic actors outside the EU.

A central contribution of this article is to show that AI is also increasingly reshaping corporate risk disclosure practices. The disclosure of AI-related risks in annual reports is becoming an essential component of responsible corporate governance, particularly in publicly listed companies where transparency obligations are closely linked to investor protection and the integrity of capital markets. In this context, the Securities and Exchange Commission has explicitly warned against so-called "AI-washing", indicating that disclosures must not be merely formal but must remain balanced, truthful, and substantiated. The discussion of directors' liability further demonstrates that obligations relating to the use of AI are generally not expressly codified in current corporate legislation. Accordingly, questions of liability must be addressed by interpreting existing statutory duties and general principles of corporate law. The scope of directors' duties in relation to AI necessarily depends on the specific circumstances of the company, including its organisational structure, size, sector of activity, technological maturity, and risk exposure. The decision to introduce AI into corporate operations, therefore, constitutes a strategic choice with significant organisational and governance implications.

From a corporate law perspective, AI does not alter the fundamental allocation of decision-making responsibility: even where systems operate with a high degree of technical autonomy, ultimate authority and accountability remain with the management and supervisory bodies. However, AI substantially transforms the informational environment in which corporate decisions are made. The duty of care must therefore increasingly be assessed by whether directors have established an adequate framework of governance and oversight, and whether algorithmically generated information is sufficiently reliable, contextually appropriate, and subject to effective human review. The article highlights that liability may arise both when companies fail to employ reasonably expected technological tools to support informed decision-making and when directors rely uncritically on AI outputs, thereby abandoning independent judgment or overlooking the technology's limitations, including issues of data quality, bias, and opacity. Under these conditions, the duty of care manifests as an obligation to establish oversight mechanisms *ex ante*, rather than merely reacting to risks after they materialise. In the context of corporate

governance, directors often lack a sufficient basis for a substantive assessment of how these systems operate, which significantly constrains the exercise of effective and accountable oversight. In such an environment, the duty of care requires directors to move beyond a narrow focus on formal legal compliance or short-term commercial outcomes, and to assume responsibility for assessing how the use of specific AI models affects the company's functioning, internal decision-making processes, and corporate governance structures. This does not entail technical mastery of AI systems as such, but rather the capacity to make a reasoned and informed evaluation of their organisational, governance-related, and systemic effects.

The AI Act further reinforces this development by introducing a risk-based compliance regime that imposes graduated obligations relating to documentation, transparency, human oversight, and ongoing monitoring. Importantly, requirements concerning continuous human supervision and the assessment of impacts on fundamental rights operate not merely as technical compliance measures, but as elements that reshape the substance of governance functions. Directors are expected to identify and mitigate risks at an early stage and to ensure that responsibility does not cease upon deployment but continues throughout the lifecycle of AI use. The extraterritorial reach of the AI Act further extends these governance and compliance implications to companies outside the EU where their systems affect the EU market.

The article ultimately concludes that AI does not create an entirely new form of directors' liability, but progressively develops and concretises existing corporate law institutes, particularly the duty of care, organisational duties, and the requirement of effective oversight. The assessment of directors' conduct will increasingly focus on whether appropriate governance structures, control mechanisms, and allocations of responsibility have been established to enable informed decision-making, prevent the uncritical delegation of judgment to technology, and ensure legally sustainable and socially responsible management of algorithmic risks in line with emerging regulatory expectations within the EU and beyond. In this sense, the growing use of AI calls for a careful adaptation of corporate governance practices, ensuring that established fiduciary standards remain effective under conditions of algorithmically mediated decision-making.

BIBLIOGRAPHY

Books and Articles:

1. Brand, Vivienne. "Directors' Duties and AI Regulation." Accessed January 25, 2025. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5238892.
2. Bratina, Borut. "Interes delniške družbe in družbeno odgovorno poslovanje." In *Družbena odgovornost in pravo: liber amicorum,* ed. Bojan Tičar, 85-103. Koper: Znanstveno-raziskovalno središče, Annales ZRS, 2024.
3. Braut Filipović, Mihaela, and Ivan Zornada. "Umjetna inteligencija i pravo društava." In *Nove tehnologije i pravo društava,* ed. Jakša Barbić, 215-236. Zagreb: Hrvatska akademija znanosti i umjetnosti, 2022.
4. Cowger, Alfred R., Jr. "Corporate Fiduciary Duty in the Age of Algorithms." *Journal of Law, Technology & the Internet* 14, no. 2 (2022-2023): 136-207.

5. Custers, Bart, and Eduard Fosch-Villaronga. *Law and Artificial Intelligence: Regulating AI and Applying AI in Legal Practice.* Cham: Springer, 2022.
6. Čulinović-Herc, Edita. "Kako osigurati primjenu etične *blockchain* tehnologije u trgovačkom društvu." *Zbornik Pravnog fakulteta u Zagrebu* 72, no. 1-2 (2022): 157-188.
7. Daidai, Fouad, and Larbi Tamine. "Artificial Intelligence and Corporate Governance." In *18th International Conference on Persuasive Technology,* eds. Felix Nti Koranteng, Nilufar Baghaei and Sandra Bur, 1-5. Eindhoven: CEUR-WS.org, 2023.
8. Fischer, Stephan. *Die Business Judgment Rule als typübergreifendes Institut*. Berlin: Duncker & Humblot, 2018.
9. Helberger, Natali. "The Rise of Technology Courts, or: How Technology Companies Re-invent Adjudication for a Digital World." *Computer Law & Security Review* 56 (2025): 1-9.
10. Humphreys, Paul. "The Philosophical Novelty of Computer Simulation Methods." *Synthese* 169 (2009): 615-626.
11. Hüffer, Uwe, and Jens Koch. *Aktiengesetz.* München: Verlag C.H.Beck, 2018.
12. Klein, Karin. "Die Business Judgment Rule im deutschen Aktienrecht." *Türk-Alman Üniversitesi Hukuk Fakültesi Dergisi* 1, no. 1 (2019): 111-132.
13. Koç, Fatma. "AI in ESG Compliance: Legal Challenges Under CSRD and AI Act." Master thesis, Tilburg University, 2025.
14. Lee, Kai-Fu. "Velesili umetne inteligence: Kitajska, Silicijeva dolina in novi svetovni red." In *Law and Artificial Intelligence: Regulating AI and Applying AI in Legal Practice,* eds. Bart Custers and Eduard Fosch-Villaronga. Ljubljana: UMco, 2019.
15. Lim, Ernest, and Phillip Morgan. *The Cambridge Handbook of Private Law and Artificial Intelligence.* Cambridge: Cambridge University Press, 2024.
16. Montagnani, Maria Lillà, and Maria Lucia Passador. "Fiduciary Duties and Business Judgment Rule 2.0 in the AI Act Age." Accessed February 3, 2026. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5714102.
17. Passador, Maria Lucia. "Transcending Boundaries in the Age of International Corporate and Financial Law." *Emory International Law Review* 39, no. 2 (2025): 569-641.
18. Pastirk, Gal, and Andreja Primec. "Pravni izzivi uporabe klepetalnega robota ChatGPT." In *Digitalna ekonomija in pravo 2023: Študentsko posvetovanje o ekonomskih in pravnih izzivih digitalne preobrazbe: zbornik recenziranih znanstvenih prispevkov,* ed. Dejan Romih, 89-104. Maribor: Društvo ekonomistov, 2023.
19. Periša, Igor, and Sanja Katušić Jergović. *Odgovorne osobe trgovačkih društava kapitala i određivanje djelokruga njihovih poslova.* Zagreb: Pravosudna akademija, 2018.
20. Podgorelec, Peter. "Odškodninska odgovornost članov poslovodstva - analiza nekaterih sodb Vrhovnega sodišča RS." *Podjetje in delo* 39, no. 5 (2013): 763-791.
21. Podgorelec, Peter. "Pravilo podjetniške presoje in odškodninska odgovornost članov uprave banke." *Podjetje in delo* 41, no. 3/4 (2015): 445-461.
22. Prelič, Saša, and Peter Podgorelec. "Splošna (korporacijska) pravila o odškodninski odgovornosti organov vodenja in nadzora." In *Zbornik 2011: 3. strokovno srečanje Aktualna vprašanja insolvenčnega prava,* ed. Franci Ramšak, 67-78. Ljubljana: GV založba, 2011.
23. Primec, Andreja. "Robot – sodelavec ali stroj?" In *Pravo in ekonomija: Digitalno gospodarstvo*, ed. Martina Repas, 37-50. Maribor: Univerzitetna založba Univerze v Mariboru, 2020.
24. Primec, Andreja, and Gal Pastirk. "Safeguarding Human Rights in the Digital Era: Legal and Ethical Perspectives on Data Protection and User Rights." In *Ethics, Justice, and Governance in the Age of AI and Digital Societies*, ed. Maja Pucelj, 27-60. IGI Global, 2026.

25. Primec, Andreja, Bojan Tičar, and Gal Pastirk. "Corporate Social Responsibility of Companies and Directors in Light of New EU Legislation: CSRD, Due Diligence Directive, and Simplification Proposals." In *Investigating Directors' Accountability in Promoting Corporate Social Responsibility,* ed. Maja Pucelj, Rado Bohinc and Anita Hrast. 99-130. IGI Global, 2026.
26. Primec, Andreja, Bojan Tičar, and Gal Pastirk. "Imperatives for Corporate Leadership: Navigating Ethical AI Governance in the Age of Rapid Technological Advancement." In *2nd Scientific Conference: Corporate Social Responsibility of Directors in Euro-Mediterranean Region, in Current and Future Green and Digital Transformation,* eds. Rado Bohinc, Bojan Tičar and Anita Hrast, 30-31. Koper: Znanstveno-raziskovalno središče Koper, Annales ZRS, 2024.
27. Primec, Andreja, Gal Pastirk, and Igor Perko. "Sovereignty Over Personal Data: Legal Frameworks and the Quest for Privacy in the Digital Age." In *Balancing Human Rights, Social Responsibility, and Digital Ethics*, eds. Maja Pucelj and Rado Bohinc, 168-198. IGI Global, 2024.
28. Ratti, Emanuele. "Epistemic Control and the Normativity of Machine Learning-Based Science." In *The Role of AI in Science: Epistemological and Methodological Studies,* eds. David Barack, André Curtis-Trudel and Darrell Rowbottom. Routledge, 2025.
29. Tepeš, Nina, and Antun Bilić. "The Purpose of a Company." *InterEULawEast: Journal for the International and European Law, Economics and Market Integrations* 9, no. 2 (2022): 223-268.
30. Voigt, Paul, and Nils Hullen. *The EU AI Act: Answers to Frequently Asked Questions.* Berlin: Springer, 2024.

Legal Sources:

1. [Austrian] *Aktiengesetz* of May 6, 1965, BGBl. No. 98/1965, with last amendments of December 30, 2023, BGBl. I No. 178/2023.
2. Companies Act [*Zakon o gospodarskih družbah*], Official Journal of the Republic of Slovenia, no. 65/09, 33/11, 91/11, 32/12, 57/12, 44/13, 82/13, 55/15, 15/17, 22/19, 158/20, 18/21, 18/23, 75/23, 102/24.
3. Companies Act [*Zakon o trgovačkim društvima*], Official Journal of the Republic of Croatia, no. 111/93, 34/99, 121/99, 52/00, 118/03, 107/07, 146/08, 137/09, 111/12, 125/11, 68/13, 110/15, 40/19, 34/22, 114/22, 18/23, 130/23, 136/24.
4. [German] *Aktiengesetz* of September 5, 1965, BGBl. I S. 108., with last amendments of October 23, 2024, BGBl. 2024 I No. 323.
5. Regulation (EU) 2024/1689 of the European Parliament and of the Council of June 13 2024 laying down harmonized rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), OJ L 2024/1689, 12.7.2024.

Case Law:

1. Supreme Court of the Republic of Slovenia, III Ips 75/2008 of December 21, 2010.
2. Supreme Court of the Republic of Slovenia, III Ips 80/2010 of July 9, 2013.

Internet Sources:

1. Boillet, Jeanne. "Why AI is Both a Risk and a Way to Manage Risk." Accessed January 12, 2025. https://www.ey.com/en_qa/insights/assurance/why-ai-is-both-a-risk-and-a-way-to-manage-risk.
2. Bottom, David. "The U.S. Securities and Exchange Commission Compliance Plan for OMB Memorandum M-24-10 Applications." Accessed February 3, 2026. https://www.sec.gov/files/sec-ai-compliance-plan.pdf.

3. Dawes, Justin. "Airbnb, Uber, Booking, Hilton: The Risks AI Poses on Business." Accessed February 13, 2025. https://skift.com/2024/03/01/airbnb-uber-booking-hilton-the-risks-ai-poses-on-business.
4. European Commission. "AI Act." Accessed September 3, 2024. https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai.
5. European Commission. "Updated EU AI Model Contractual Clauses." Accessed March 10, 2025. https://public-buyers-community.ec.europa.eu/communities/procurement-ai/resources/updated-eu-ai-model-contractual-clauses.
6. Ford, Brody. "Nvidia, Microsoft, Meta Warn Investors AI is a Risky Financial Bet." Bloomberg. Accessed February 12, 2025. https://www.bloomberg.com/news/newsletters/2024-07-03/nvidia-microsoft-meta-warn-investors-that-ai-poses-financial-risks?srnd=technology-vp.
7. "FORM 10-K for the Fiscal Year Ended December 31, 2021, Uber Technologies." Accessed January 25, 2025. https://www.sec.gov/Archives/edgar/data/1543151/000154315122000008/uber-20211231.htm.
8. "FORM 10-K for the Fiscal Year Ended December 31, 2022, Meta Platforms." Accessed January 25, 2025. https://www.sec.gov/Archives/edgar/data/1326801/000132680123000013/meta-20221231.htm.
9. "FORM 10-K for the Fiscal Year Ended December 31, 2024, Meta Platforms." Accessed January 25, 2025. https://www.sec.gov/Archives/edgar/data/1326801/000132680125000017/meta-20241231.htm.
10. "FORM 10-K for the Fiscal Year Ended December 31, 2024, Uber Technologies." Accessed January 25, 2025. https://www.sec.gov/Archives/edgar/data/1543151/000154315125000008/uber-20241231.htm.
11. "FORM 10-K for the Fiscal Year Ended January 28, 2024, NVIDIA." Accessed January 25, 2025. https://www.sec.gov/Archives/edgar/data/1045810/000104581024000029/nvda-20240128.htm.
12. "FORM 10-K for the Fiscal Year Ended January 30, 2022, NVIDIA." Accessed January 25, 2025. https://www.sec.gov/Archives/edgar/data/1045810/000104581022000036/nvda-20220130.htm.
13. "FORM 10-K for the Fiscal Year Ended June 30, 2022, Microsoft." Accessed January 25, 2025. https://www.sec.gov/Archives/edgar/data/789019/000156459022026876/msft-10k_20220630.htm.
14. "FORM 10-K for the Fiscal Year Ended June 30, 2024, Microsoft." Accessed January 25, 2025. https://microsoft.gcs-web.com/static-files/1c864583-06f7-40cc-a94d-d11400c83cc8.
15. Gerding, Erik. "The State of Disclosure Review." US Securities and Exchange Commission. Accessed February 18, 2025. https://www.sec.gov/newsroom/speeches-statements/gerding-statement-state-disclosure-review-062424#_ftn10.
16. Gregory, Holly J. "AI and the Role of the Board of Directors." Harvard Law School Forum on Corporate Governance. Accessed February 12, 2025. https://corpgov.law.harvard.edu/2023/10/07/ai-and-the-role-of-the-board-of-directors/.
17. Hron, David. "Rozhraní justiční praxe a umělé inteligence: evoluce a výzvy." Accessed December 18, 2024. https://advokatnidenik.cz/2024/09/01/rozhrani-justicni-praxe-a-umele-inteligence-evoluce-a-vyzvy/.
18. LaCroix, Kevin. "Artificial Intelligence and Corporate Boards." The D&O Diary. Accessed December 18, 2024. https://www.dandodiary.com/2024/07/articles/corporate-governance/artificial-intelligence-and-corporate-boards/.
19. "Largest Companies View AI as a Risk Multiplier: From Cybersecurity, Regulatory, and Competition to Reputation, Ethics, and Intellectual Property." Deloitte and USC Marshall School of Business Peter Arkley Institute for Risk Management. Accessed February 25, 2025. https://uscmarshallweb.s3-us-west-2.amazonaws.com/assets/uploads/s1/files/deloitte_arkley_report_final_october_2024_huniotst6b.pdf.

20. Markel, Gregory A., Daphne Morduchowitz, and Matthew C. Catalano. "A Director's Duty of Oversight after Marchand in "Caremark" Case." Harvard Law School Forum on Corporate Governance. Accessed February 3, 2026. https://corpgov.law.harvard.edu/2022/01/23/a-directors-duty-of-oversight-after-marchand-in-caremark-case/.
21. Maskin, Arvin, et al. "Generative Artificial Intelligence and Corporate Boards: Cautions and Considerations." Mayer Brown. Accessed January 17, 2025. https://www.mayerbrown.com/en/insights/publications/2023/06/generative-artificial-intelligence-and-corporate-boards-cautions-and-considerations.
22. Mishova, Ana. "AI Risk Classification: Guide to EU AI Act Risk Categories." GDPR Local. Accessed February 3, 2026. https://gdprlocal.com/ai-risk-classification/.
23. Mitha, Sam. "Robots, Technological Change and Taxation." Taxjournal. Accessed September 14, 2017. https://www.taxjournal.com/articles/robots-technological-change-and-taxation-14092017.
24. Schulte, Hendrik. "Die Rolle künstlicher Intelligenz in der Unternehmensleitung: Ein Ausblick auf Vorstands- und Aufsichtsratsarbeit in Zeiten künstlicher Intelligenz." Accessed January 17, 2024. https://www.fch-gruppe.de/Beitrag/22646/die-rolle-kuenstlicher-intelligenz-in-der-unternehmensleitung-?id=22646.
25. Sidley. "Artificial Intelligence: U.S. Securities and Commodities Guidelines for Responsible Use." Accessed February 10, 2025. https://www.sidley.com/en/insights/newsupdates/2025/02/artificial-intelligence-us-financial-regulator-guidelines-for-responsible-use.
26. "Verantwortung für Leitungsorgane beim Einsatz von AI." Accessed March 3, 2025. https://schalast.com/de/hot-topics/artifical-intelligence/verantwortung-fuer-leitungsorgane-beim-einsatz-von-ai.php.
27. White & Case. "Key Considerations for Updating 2023 Annual Report Risk Factors." Accessed December 20, 2024. https://www.whitecase.com/insight-alert/key-considerations-updating-2023-annual-report-risk-factors.

Andreja Primec*
Bojan Tičar**
Gal Pastirk***

Sažetak

UMJETNA INTELIGENCIJA I KORPORATIVNO UPRAVLJANJE: PRAVNI ASPEKTI ODGOVORNOSTI DIREKTORA I PRAKSI OTKRIVANJA RIZIKA

Brojni izazovi koji će oblikovati budućnost društva usko su povezani s razvojem novih tehnologija, među kojima se posebno ističe umjetna inteligencija. Razvoj umjetne inteligencije iznimno je intenzivan te će, između ostaloga, imati značajan utjecaj na djelovanje trgovačkih društava. Ovaj rad razmatra na koji način ubrzani razvoj umjetne inteligencije već utječe na korporativno upravljanje i upravljačka tijela. Direktori moraju biti svjesni važnosti razvoja etički odgovornih i pouzdanih sustava umjetne inteligencije, jer se time dugoročno osigurava uspješnost poslovanja trgovačkih društava. Promijenjene okolnosti uzrokovane novim tehnologijama dodatno su osnažile uloge direktora i članova nadzornih tijela u oblikovanju strateških smjernica i osiguravanju visokih etičkih standarda. Vodeći predstavnici velikih trgovačkih društava posljednjih godina upozoravaju na složenost izazova povezanih s razvojem umjetne inteligencije. Kako bi izbjegla moguće sporove s dioničarima, trgovačka društva dužna su u svojim godišnjim izvješćima transparentno prikazati ključne čimbenike koji mogu utjecati na njihovo poslovanje. Na taj način dodatno iskazuju svoju odgovornost prema dioničarima i drugim dionicima, koji moraju biti upoznati s rizicima i mogućim negativnim posljedicama primjene umjetne inteligencije.

Ključne riječi: *umjetna inteligencija; korporativno upravljanje; pravna regulativa umjetne inteligencije; odgovornost direktora; godišnja izvješća.*

* Dr. sc. Andreja Primec, redovita profesorica, Sveučilište u Mariboru, Ekonomsko-poslovni fakultet, Slovenija; Sveučilište Primorska, Slovenija; Euro-mediteransko sveučilište, Slovenija; andreja.primec@um.si. ORCID: https://orcid.org/0000-0002-5615-7299.

** Dr. sc. Bojan Tičar, redoviti profesor, Sveučilište u Mariboru, Fakultet za sigurnosne znanosti, Slovenija; Znanstveni i istraživački centar Kopar, Slovenija; bojan.ticar@fvv.uni-mb.si. ORCID: https://orcid.org/0000-0002-7225-9148.

*** Gal Pastirk, mag. iur., asistent, Euro-mediteransko sveučilište, Slovenija; Sveučilište u Mariboru, Ekonomsko-poslovni fakultet Slovenija; gal.pastirk@zrs-kp.si. ORCID: https://orcid.org/0009-0001-7877-639X.

©2026 Autor(i) i nakladnik. Ovaj je rad dostupan u otvorenom pristupu pod uvjetima licencije CC BY-NC-ND 4.0.