

11 Taking Technical Standardization of Fundamental Rights Seriously for Trustworthy Artificial Intelligence



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1 - In a seminal essay, E. Burton Swanson explains that information systems have come to rule the world for a long time “ by the rules they actually embody (...) mostly without drama as infrastructure that comes to our attention only when something goes awry ”. ¹ In recent years, the rapid digitization of society and the widespread deployment of artificial intelligence (AI) systems have only made this state of affairs more evident, and the glitches often more dramatic. The implementation of AI systems across various sectors, including education, justice, social welfare, migration, policing, and healthcare, often justified by enhanced efficiency, has been marred by a multitude of scandals and breaches of fundamental rights. ² These incidents have revealed the risks associated with the unregulated adoption and deployment of these systems, prompting regulatory actions across the globe. In this context, technical standards have emerged as a promising tool for ensuring the trustworthiness of AI systems and their conformity with fundamental rights.

In this paper, we critically examine the emerging paradigm of technical standardization of fundamental rights for AI systems and explore potential solutions for advancing ongoing efforts. Firstly, we briefly present the current trends in AI regulation and fundamental rights, and the role envisioned for technical standards in this context, especially within the AI Act, the European Union (EU)’s flagship legislative initiative (I). Secondly, the paper discusses the main benefits and limitations of incorporating fundamental rights into AI technical standards (II). Finally, we critically examine the current landscape of AI technical standards and propose some methodological insights that may contribute to take fundamental rights seriously in the context of AI technical standardization (III).

1. Fundamental rights in AI regulation and the role of technical standards

2 - For a long time, discussions on AI regulation and the impacts of AI systems on fundamental rights were primarily confined to data and privacy issues. As a result, data protection dominated the global regulatory agenda, at least until 2020, leading to the first wave of regulations targeting these aspects worldwide. ³ Meanwhile, the extensive deployment of AI systems has revealed

a broad spectrum of rights and freedoms that may be impacted by them, ⁴ impacts that cannot be solely addressed or encompassed by data protection alone, ⁵ especially when following the traditional approach to privacy. ⁶

Therefore, while data regulation remains crucial and continues to evolve dynamically, the regulatory focus has shifted towards a more comprehensive approach that targets software and AI systems themselves. This new regulatory trend aims to address the ever-growing array of risks arising from AI systems at various governance levels, relying on a diverse set of instruments. These include guidelines, ethical norms, and legal measures at local, national, or regional levels, as well as initiatives like the Council of Europe’s project for an international convention on artificial intelligence, human rights, democracy, and the rule of law. ⁷

For instance, various multilateral organizations have published their own principles, such as the OECD’s “ Principles on Artificial Intelligence ”, ⁸ the EU’s “ Ethics Guidelines for Trustworthy AI ”, ⁹ and UNESCO’s “ Recommendations on the Ethics of Artificial Intelligence ”. ¹⁰ The rise of generative AI has led to new initiatives, including the G7 “ Hiroshima Guiding Principles ” and its “ Code of Conduct ” on artificial intelligence. ¹¹ In December 2023, the newly appointed UN AI advisory board released an interim report outlining key principles to guide the formation of new global AI governance institutions. ¹² All these instruments extend beyond data regulation and aim to address the various dimensions of fundamental rights and values potentially put at risk by AI systems.

Novel and Contractive form of Eurocentrism ? ”, *Global Constitutionalism*, 2022, pp. 1-29.

4. See e.g., A. Quintavalla & J. Temperman (eds.), *Artificial Intelligence and Human Rights*, Oxford, Oxford University Press, 2023 ; European Union Agency for Fundamental Rights, *Getting the Future Right : Artificial Intelligence and Fundamental Rights*, Report, 2020, 108 p.

5. See A. Mantelero, *Beyond Data : Human Rights, Ethical and Social Impact Assessment in AI*, The Hague, T.M.C. Asser Press 2022.

6. For a critical perspective, see I. Cofone, *The Privacy Fallacy : Harm and Power in the Information Economy*, Cambridge, CUP, 2024.

7. Council of Europe, Committee on Artificial Intelligence (CAI), Consolidated Working Draft of the Framework Convention on Artificial Intelligence, Human rights, Democracy and the Rule of Law, CAI (2023)18, 7 July 2023.

8. OECD, Recommendation of the Council on Artificial Intelligence, Adopted on May 22, 2019, and amended on November 8th, 2023.

9. High-Level Expert Group on AI, Ethics Guidelines for Trustworthy AI, Publications Office, 2019.

10. UNESCO, Recommendation on the Ethics of Artificial Intelligence, 2022.

11. G7, Hiroshima Process International Guiding Principles for Organizations Developing Advanced AI Systems, 2023 and G7, Hiroshima Process International Code of Conduct for Organizations Developing Advanced AI Systems, 2023.

12. UN AI Advisory Body, Interim Report : Governing AI for Humanity, December 2023.

1. E. Burton Swanson, *How Information Systems Came to Rule the World and Other Essays*, New York/London, Routledge, 2022, p.66.

2. For an overview of various problematic use cases in these sectors across European countries see – European Digital Rights (EDRi), *Uses cases : Impermissible AI and fundamental rights breaches*, August 2020, 29 p.

3. See J. Huang, “ Applicable Law to Transnational Personal Data : Trends and Dynamics ”, *German Law Journal*, vol. 21, 6, 2020, pp. 1283-1308 ; G. Kapar, “ Global Regulatory Competition on Digital Rights and Data Protection : A

With the same comprehensive approach to risks, the surge in local, national, and regional laws specifically aimed at regulating AI systems is also remarkable and confirms the hypothesis of a race to regulate AI, indicative of a global battle to regulate technology.¹³ Notable examples include China's Interim Administrative Measures for the Management of Generative AI Services¹⁴ and Algorithmic Recommendation systems,¹⁵ the US's AI Executive Order (EO),¹⁶ the draft Canadian Artificial Intelligence Data Act,¹⁷ and the Brazilian Bill No. 2338, which introduces a risk-based approach to AI regulation similar to the (almost) finalized EU AI Act.¹⁸

Despite their significant diversity in content and objectives, these various initiatives assign a role to technical standards in ensuring that AI systems either respect fundamental rights or uphold fundamental values.¹⁹ As Voker Türk, the UN High Commissioner for Human Rights, remarked at the World Standards Cooperation, "the world of technological expertise, long the domain of standard-developing organizations, and the world of human rights, are moving closer".²⁰

This closer connection is particularly evident in the upcoming EU AI Act, which draws inspiration from traditional European product safety regulations. The Act imposes obligations on AI systems based on their associated risks and introduces specific responsibilities for both producers and operators of AI systems.²¹ Specifically, producers of AI systems classified as high risk must perform a conformity assessment to affix the CE marking on the system they introduce to the market or put into service.²² When harmonized standards developed by recognized European Standards Organizations (CEN, CENELEC, ETSI) exist, adherence to them grants a presumption of conformity with the regulation.²³ Producers may also demonstrate compliance by referring to other technical standards or their own specifications, but they must explain in that case how these meet the legal requirements.

At first glance, this approach appears to align with the longstanding "New Approach" principles within the European single

market. However, it diverges by integrating, for AI systems, fundamental rights alongside conventional health and safety requirements. This innovation reflects a broader trend within the digital single market, where compliance with fundamental rights is becoming an integral aspect of product and service regulation. This move is also reflected in the Digital Services Act (DSA)²⁴ or the upcoming Health Data Space regulation, which underscores the importance of common specifications for "interoperability, security, safety or fundamental right concern".²⁵

The EU AI Act will introduce fundamental rights conformity assessment for high-risk AI systems.²⁶ In doing so, it significantly expands the traditional scope of technical standards and harmonized standards and positions the European Union at the forefront of the global movement towards the technical standardization of fundamental rights and values.

2. AI technical standards and fundamental rights protection

3 - The incorporation of fundamental rights into risk management and their inclusion in technical standards is not an entirely new concept. For example, the ISO 26000 :2010 standard on social responsibility has become an international framework for companies to comply with fundamental principles and rights at work.²⁷ However, with AI systems, this movement takes a significant step further. In this case, technical standards will be a crucial part of the conformity assessment process – unlike ISO 26000 :2010, which is not certifiable²⁸ – and intimately linked to market access. Moreover, the range of fundamental rights potentially affected by AI systems is limited only by the imagination. Given that ongoing global efforts to align AI with fundamental rights will largely depend on the technical standards ultimately developed, it is crucial to critically assess this approach on its merits. Understanding its advantages and limitations is especially important in the context of the upcoming EU AI Act.

Arguably, the most compelling argument in favor of using technical standards to ensure AI systems comply with fundamental rights is their proven track record in regulating technologies. Legal historians have illustrated that, since its inception in the 19th century, technical standardization has developed as a form of "engineer-made law," often in competition with "lawyer-made law."²⁹ This approach has been notably successful in setting global standards, a success that could be envied by many international lawyers.³⁰ By incorporating fundamental rights into these standards, a bridge can be created to facilitate communication with technical communities, such as engineers and data scientists. These professionals, for instance, might find it easier to work with fairness metrics integrated into technical standards than to navigate non-discrimination law and the case law of the European Court of

13. See N.A. Smuha, "From a "Race to AI" to a "Race to AI Regulation": Regulatory Competition for Artificial Intelligence", *Law, Innovation and Technology*, 13, 1, 2021, pp. 57-84 and A. Bradford, *Digital Empires: The Global Battle to Regulate Technology*, Oxford, Oxford University Press, 2023.

For an overview of the global AI regulatory landscape see – Stanford University, *AI Index 2023 Annual Report*, AI Index Steering Committee, Institute for Human-Centered AI, 2022, 386 p.

14. Interim Measures for the Management of Generative Artificial Intelligence Services, July 10, 2023.

15. Internet Information Service Algorithmic Recommendation Management Provisions – Effective March 1, 2022.

16. The White House, Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence, October 30, 2023. (Executive Order)

17. Government of Canada, The Artificial Intelligence and Data Act (AIDA), June 2022.

18. Proposal for a regulation of the European Parliament and of the Council on laying down harmonized rules on artificial intelligence and amending certain Union legislative acts, COM (2021)0206 – C9-0146/2021 – 2021/0106(COD) (AI Act). At the time of writing, the AI Act trilogue has ended but the final text adopted is yet to be released. The reference made to the AI Act in this paper refers to the European Parliament amended position being the most recent draft to date.

19. See Internet Information Service Algorithmic Recommendation Management Provisions art. 5 & art. 9 ; A. Hilliard, *How is Brazil Leading South America's AI Legislation Efforts? Holistic AI*, November 20, 2023 ; Executive Order, Section 11 (b) ; UN AI Interim report, supra note 11, see institutional function number 2 on interoperability and number 3 on mediating standards and safety frameworks, p.21.

The interplay between technical standard setting and human rights was also discussed in the UN Human Rights Council 53rd session, see Report of the Office of the United Nations High Commissioner for Human Rights, A/HRC/53/42.

20. Voker Türk addresses World Standards Cooperation Meeting on Human Rights and Digital Technology, February 24, 2023 (accessible at <https://www.ohchr.org/en/statements/2023/02/turk-addresses-world-standards-cooperation-meeting-human-rights-and-digital>).

21. AI Act, supra note 18, title III, chapter 2.

22. *Ibid*, art. 16.

23. *Ibid*, art. 40.

24. See G. Lewkowicz, "La liberté d'expression en algorithmes : un droit SMART de la liberté d'expression en ligne est-il inévitable ?" in J. Englebert (ed.), *La régulation des contenus haineux sur les réseaux sociaux*, Bruxelles, Anthemis, 2022, pp. 119-138.

25. Proposal for a regulation of the European Parliament and of the Council on the European Health Data Space, COM (2022) 197/2, article 10(h).

26. AI Act, supra note 18, art. 43.

27. See B. Frydman & A. Van Waeyenberge, *Gouverner par les standards et les indicateurs. De Hume aux rankings*, Bruxelles, Bruylant, 2013, chap. 4 and P. Lequet, "Loi "devoir de vigilance" : de l'intérêt des normes de management des risques", *Revue juridique de l'environnement*, vol. 41, 2017/4, pp. 705-725.

28. International Standards Organization, ISO 26000, Guidance on social responsibility.

29. M. Vec, *Recht und Normierung in der Industriellen Revolution : Neue Strukturen der Normsetzung in Völkerrecht, staatlicher Gesetzgebung und gesellschaftlicher Selbstnormierung*, Nomos Verlag, 2006.

30. J. Yates & C.N. Murphy, *Engineering Rules : Global Standard Setting since 1880*, Baltimore, John Hopkins University Press, 2019.

Justice.³¹ Generally, standards are already recognized as vital markers of market conformity across various industries,³² making them a suitable medium for integrating fundamental rights considerations in AI systems.

Secondly, since standards are integral to upstream product development, linking AI system conformity with market entry standards enables direct intervention in their design. Addressing one of the main challenges of AI regulation – the limitations of *ex post* regulation – technical standards can be particularly effective. By setting *ex ante* requirements, they essentially establish a form of licensing,³³ that promotes a “compliance by design” approach, influencing both the “proxies” and back-end “choice architectures” of AI systems.³⁴ In this dynamic, while standards prompt a rethinking of traditional modes of fundamental rights protections, fundamental rights can concurrently transform the process through which technologies are developed.

On the other hand, several arguments question the suitability of technical standards for ensuring respect for fundamental rights. Some are based on the inherent nature of fundamental rights and technical standards. Others are entrenched in more contextual reasons regarding the functioning of standardization bodies.

Among the first category of arguments are those challenging the feasibility of translating fundamental rights into technical standards due to the context-dependency of these rights.³⁵ Fundamental rights exhibit a complex interplay that requires competitive balancing against each other. Such a balancing act is typically the domain of courts, which consider each case individually. This process necessitates a degree of discretion and an *ad hoc* approach to adequately weigh the rights involved, acknowledging the situational nature of fundamental rights. The inherent complexity and case-specific nuances of fundamental rights might, therefore, resist a one-size-fits-all standardization approach.

This consideration also raises crucial questions regarding the nature and the scope of standards being developed for the AI Act and similar initiatives.³⁶ Given their potential global impact, these standards could lead to a “regionalization of standards”³⁷ that reflect the values and norms of the countries and regions from which they originate. This regionalization may become more pronounced as standards move from embodying universal values to more specific and codified criteria. The risk of divergence becomes particularly evident in the realm of fundamental rights protection, such as the stark contrast in how freedom of expression is safeguarded in the United States, Europe, and China.³⁸ As technical standards become more involved in encoding fundamental rights, their universality may be fragmented, drawing attention to the international differences in interpreting the breadth and scope of *universal rights*.³⁹

Certain authors argue that technical standards are also grossly inadequate to address fundamental rights concerns due to their unique conception of risk.⁴⁰ In the realm of technical standards, risk management is primarily about meeting market access criteria, following a logic of satisfaction.⁴¹ Therefore, it is irrelevant whether a given system barely achieves or significantly surpasses the relevant standards.⁴² Whereas the legal approach to fundamental rights is rooted in a principle of optimization: they should be safeguarded and advanced to the highest degree. This perspective thus advocates for a parallel system: one preserving health and safety via harmonized standards, and another one to address fundamental rights concerns framing risk differently.⁴³

Other limits to fundamental rights technical standardization are more contextual and concern the legitimacy and ability of standardization bodies to undertake such a task.⁴⁴ This issue is partly linked to the type of stakeholders involved. Standardization bodies are dominated by industry actors and have been criticized for their vulnerability to industrial lobbying.⁴⁵ Such influence may have a negative impact on the protection of fundamental rights.⁴⁶ This was illustrated by the controversy over the exclusion of ETSI from the draft standardization request of the Commission for the AI Act.⁴⁷ ETSI’s “pay-to-play”⁴⁸ governance model assigns more votes in meetings to members who pay higher subscription fees, leading to perceptions of heavy influence from foreign corporations. As a consequence, there is a risk that interested private parties might shape norms and values that ought to be democratically debated, particularly when these concern fundamental rights.

Also, the business model behind standardization bodies raises the questions of access to technical standards.⁴⁹ Paywalls standing between copy-righted standards and interested stakeholders have proven to be a challenge for small actors such as NGOs.⁵⁰ This difficulty becomes all the more pressing under the EU system, where harmonized standards are often “indispensable” when

and risk management frameworks for AI are underway, there is a lack of global harmonization and alignment”.

40. M. Almada & N. Petit, *supra* note 35, p.20.

41. *Ibid.*

42. *Ibid.*

43. *Ibid.* p.26.

44. H. Fraser, J-M. Bello y Villarino, “Acceptable Risks in Europe’s Proposed AI Act : Reasonableness and Other Principles for Deciding How Much Risk Management Is Enough”, *European Journal of Risk Regulation*, Published online 2023, pp.1-16 p.13.

45. M. McFadden, K. Jones, E. Taylor, G. Osborn, “Harmonizing Artificial Intelligence : The role of standards in the EU AI Regulation” ; *Oxford Information Labs*, 2021, 42 p, p.20.

46. C. Castets-Renard, & P. Besse, *Ex ante* Accountability of the AI Act : Between Certification and Standardization, in Pursuit of Fundamental Rights in the Country of Compliance. *Artificial Intelligence Law : Between Sectoral Rules and Comprehensive Regime. Comparative Law Perspectives*, C. Castets-Renard & J. Eynard (eds), Bruylant, 2023, 23 p, p.20.

47. L. Bertuzzi, Commission leaves the European standardization body out of AI standard-setting, Euractiv, December 7, 2022.

48. I. Rashid & S. Simpson, “The struggle for coexistence : communication policy by private technical standards making and its limits in unlicensed spectrum”, *Information, Communication & Society*, vol 24, 4, 2022, pp. 576-593, p.581.

49. Gornet, *supra* note 35, p.7 and R. Ducato, Why Harmonised Standards Should Be Open, 2023, IIC 54, pp.1173-1178, p.1173.

50. This is illustrated by the In Public.Resource.Org Case T-185/19., in which two non-profit organizations requested access to several harmonized standards listed in the EU official journal but whose full text stood behind a paywall. The Commission refused to grant access on the basis of the Article 4(2) of Regulation 1049/2001 arguing that such disclosure would undermine the protection of commercial interests including intellectual properties of standardization bodies. A first judgment was issued by the General Court in July 2021 in favor of the Commission. In their appeal, the organizations argued that the Court of First Instance wrongly assessed the copyright protection of HS, as HS are part of the law and cannot be copyrighted. See – Judgment of the General Court (Fifth Chamber, Extended Composition) of 14 July 2021. Public.Resource.Org, Inc. and Right to Know CLG v European Commission. Case T-185/19 ; Appeal brought on 23 September 2021 by Public.Resource.Org, Inc., Right to Know CLG against the judgment of the General Court (Fifth Chamber, Extended Composition) delivered on 14 July 2021 in Case T-185/19, Public.Resource.Org, Inc. and Right to Know CLG v European Commission.

31. See the interesting discussion of fairness metrics in S. Wachter *et al.*, “Why Fairness Cannot Be Automated: Bridging the Gap Between EU Non-Discrimination Law and AI”, *Computer Law & Security Review*, vol.41, July 2021.

32. P. Cihon, *Standards for AI Governance : International Standards to Enable Global Coordination in AI Research & Development*, Technical Report, Future of Humanity Institute, Oxford University, April 2019, p.7.

33. G. Malgieri & F. Pasquale, “Licensing high-risk artificial intelligence : Toward *ex ante* justification for a disruptive technology”, *Computer Law & Security Review*, Volume 52, 2024.

34. M. Hildebrand, “The issue of proxies and choice architectures : Why EU law matters for recommender systems”, *Frontiers in Artificial Intelligence*, 5, 789076, 2022, pp. 1-17.

35. M. Gornet, “The European approach to regulating AI through technical standards”, HAL Open Science – 04254949, 2023 and M. Almada & N. Petit, “The EU AI Act : A Medley of Product Safety and Fundamental Rights ?”, *RSC Working Paper*, EUI, 2023, 27 p.

36. C. Perarnaud, “With the AI Act, we need to mind the standards gap”, *CEPS*, April 2023. (<https://www.ceps.eu/with-the-ai-act-we-need-to-mind-the-standards-gap/>)

37. *Ibid.*

38. Malgieri & Pasquale, *supra* note 33, p.15.

39. The UN Interim Report (see *supra* note 11, p.19.) also notes that while “several important initiatives to develop technical and normative standards, safety,

complying with a given EU regulation.⁵¹ As harmonized standards have grown to become part of EU law,⁵² concerns over intellectual property protections clash with the rooted principle of free access to the law.⁵³ This principle seems all the more essential when it is fundamental rights, and not the dimensions of containers, that are the object of technical standardization.

Furthermore, beyond the question of legitimacy, there is a critical issue whether the process of standardization bodies “lend themselves to discussion of fundamental rights and their jurisprudence”.⁵⁴ Typically, these bodies focus on technical features and engineering processes, rather than discuss trade-offs between conflicting rights and interests in complex socio-political contexts. Standardization bodies have so far made minimal provision for the participation of civil society and other relevant stakeholders,⁵⁵ raising doubts about their capacity for meaningful integration of diverse perspectives.⁵⁶ For instance, while the current EU draft standardization request for the AI Act calls for a consultation with a broad array of stakeholders,⁵⁷ it remains uncertain how standardization bodies will develop the necessary expertise to engage with core legal aspects of fundamental rights protection.⁵⁸ Additionally, it is unclear whether the EU strategy on standardization, published by the Commission in February 2022, will fulfill its long-term objectives regarding the enhancement of “openness, transparency, and inclusiveness”⁵⁹ of the standardization process.

3. Taking Standardization of Fundamental Rights Seriously

4 - The technical standardization of fundamental rights in AI regulation is both profoundly problematic and inevitable. The problematic aspect arises from legitimate criticisms it faces. Indeed, contextual challenges may be addressed by reforming standardization bodies, their membership, and business models. Transforming these entities into multistakeholder and multidisciplinary deliberative forums, which adopt technical standards subject to judicial review under the rule of law, could be a viable, though a revolutionary, and complex technocratic solution. Yet, the challenges entrenched in the inherent nature of fundamental rights and technical standards are, by definition, not amenable to an easy solution.

Nevertheless, some form of technical standardization of fundamental rights appears inevitable, given that an increasing portion of our behaviors are mediated by digital technologies and interfaces. It is challenging to advocate for *de facto* adherence to the

rules embedded in these often black-box technologies, solely to preserve the purity of fundamental rights in their *ex-post* application. Yet, at the same time, while technical standards can introduce meaningful fundamental rights safeguards in the AI-system development process, as they do so, *it matters how*.⁶⁰

In the European Union, the draft standardization request from the European Commission for CEN and CENELEC falls short in providing clear guidance on how to address the legal dimensions of fundamental rights.⁶¹ The AI Act only makes vague references to European values, treaties, and the need for stakeholder diversity, without offering concrete directives.⁶² This ambiguity is compounded by the numerous, yet unspecific, mentions of fundamental rights, failing to establish a well-defined policy outlining the interaction between binding legal requirements and harmonized technical standards.⁶³ Even if standardization bodies strive to incorporate fundamental rights considerations and expertise into their processes, there remains significant uncertainty about the specific actions they should undertake and which rights they should consider.⁶⁴

A closer examination of broader AI standardization endeavors reveals that most standards developed or in development primarily focus on ethics and fairness.⁶⁵ While fundamental rights do intersect with ethical values to some extent, these two notions should not be confused. The current landscape of technical standards for trustworthy AI falls short in providing the rights-based approach envisioned by the AI Act.⁶⁶ Relying predominantly on ethics to build a fundamental rights-based approach risks regressing to a time, nearly three-quarters of a century ago, before the development of international and regional human rights law, leaving us with frameworks that are, at best, vague. This concern is amplified by critiques from scholars who warn of “ethics washing”,⁶⁷ where ethical guidelines are perceived as mere facades to circumvent or delay the implementation of effective regulation.

The ISO/IEC 42001 :2023 technical standard on AI management systems, published in December 2023, exemplifies the limitations of the current approach of fundamental rights in AI standardization. This standard, likely to be endorsed by European standardization organizations, does establish a risk assessment step to evaluate significant impacts of AI systems on individuals and groups, specifically references areas such as physical and psychological well-being and “universal human rights”.⁶⁸ However, the standard leaves the responsibility for making design choices to mitigate such risks and for determining the appropriate metrics to evaluate the contextualized application of an AI system solely to its providers. In our view, current standards like ISO/IEC 42001 :2023 fall short

51. Gornet, *supra* note 35, p.7 ; Opinion of Advocate General Medina delivered on 22 June 2023. Case C-588/21 P. Public.Resource.Org, Inc., Right to Know CLG v European Commission, para 33.

52. Judgment of the Court (Third Chamber) of 27 October 2016. James Elliott Construction Limited v Irish Asphalt Limited. Request for a preliminary ruling from the Supreme Court (Ireland). Case C-613/14, para 40.

53. Opinion of Advocate General Medina, *supra* note 57, para 72.

54. McFadden and al., *supra* note 45, p.19.

55. See C. Galvagna, “Discussion Paper : Inclusive AI Governance”, *Ada Lovelace Institute*, 2023, 65 p, p.9 ; McFadden and al, *supra* note 45, p.20 ; H. Pouget, “The EU’s AI Act Is Barreling toward AI Standards That Do Not Exist”, *Lawfare*, January 12, 2023.

56. *Ibid.*

57. European Commission, Draft standardization request to the European Standardization Organizations in support of safe and trustworthy artificial intelligence, recital (14). (Draft standardization request)

58. One challenge that comes with the cost of attending standardization process meetings and making contributions is the demand for capital and human intensive resources which are generally available to private companies. One suggestion that has been formulated is amending the EU Standardization Regulation to reform the funding and governance of European Standardization Bodies to support diverse participation. See “H.W. Micklitz, “The Role of Standards in Future EU Digital Policy Legislation : A Consumer Perspective”, Commissioned by ANEC and BEUC, July 2023, 196 p, p.171.

59. European Commission, Communication from the Commission – An EU Strategy on Standardization : Setting Global Standards in Support of a Resilient, Green and Digital EU Single Market, COM (2022) 31 final, February 2, 2022, p.4.

60. As concluded by K.J.M. Matus and M. Veale in their assessment of certification systems for machine learning “if there is an acceptance that standards are a required approach, sustainability shows us that the question of what kind of standard is not inconsequential, and that there may be a trade-off between what it is possible to standardize, and the desired outcomes of the standard”. See K.J.M Matus & M. Veale, “Certification systems for machine learning : Lessons from sustainability”, *Regulation & Governance*, vol. 16, 2022, pp. 177-196, p.187.

61. Draft standardization request, *supra* note 52, recital (14). ; AI Act, *supra* note 18, recital 61(a), recital 72(b), recital 85, article 9 para 4-1.

62. AI Act, *supra* note 18, recital 61(a), recital 72(b), recital 85, article 9 para 4-1.

63. Micklitz, *supra* note 52, p.70.

64. *Ibid.*

65. See *ibid* p.114-153, and McFadden, *supra* note 45, p.29-40 for an overview of existing and developing AI standards by various Standard Setting Organizations.

66. Garrido, J.O., Tolan, S., Hupont Torres, L., Fernandez Llorca, D., Charisi, V., Gomez Gutierrez, E., Junklewitz, H., Hamon, R., Fano Yela, D., & Panigutti, *AI Watch : Artificial Intelligence Standardisation Landscape Update*. EUR 31343 EN. Report, Publications Office of the European Union. 2023, 44 p, p.11.

67. B. Wagner, “Ethics as an Escape from Regulation : From Ethics-Washing to Ethics-Shopping”, in Hildebrandt, M. (Ed.), *Being Profiling. Cogitas ergo sum*, Amsterdam University Press, 2018, pp. 86-90.

68. ISO / IEC 42001, Information technology Artificial intelligence Management system, 2023, section 6.1, 8.2 read conjointly with Annex B (normative), section B5.

of fulfilling the aspirations of technical standardization of fundamental rights because they do not take fundamental rights seriously.

From a methodological perspective, taking fundamental rights seriously involves bridging the rights/standard gap to pave the way for the development of more robust socio-technical standards. In the context of the AI Act, this would involve operationalizing the risk identification process to map the most relevant fundamental rights to the high-risk areas defined by the legislation.⁶⁹ For each high-risk use case, the potentially affected fundamental rights should be contextually analyzed and broken down into their various dimensions based on existing law and jurisprudence. This approach aims to create a more precise mapping of the various rights and freedoms relevant to each high-risk area, moving beyond broad concepts like “universal human rights”, “fairness” or “bias-free systems.” Instead, it provides a nuanced understanding tailored to the specific rights most relevant to application cases.

Consider the instance of AI systems used by judicial authorities for interpreting law and facts.⁷⁰ The right to a fair trial is undoub-

tedly a relevant fundamental right in this use case. However, the risks associated with using an AI system in this context must be assessed across the various dimensions of this right. It is therefore essential to dissect the right to a fair trial into its distinct components : judicial independence, impartiality, motivation, publicity, adversarial principle, equality of arms, presumption of innocence and access to justice. This breakdown facilitates a detailed evaluation of how each aspect of the right to a fair trial might be impacted by a given AI system.

The next step involves developing risk assessment methods to evaluate the significance of the impact of such a system on each component of the right to a fair trial. This method should incorporate the elements of risk significance as outlined in the AI Act, including the intensity, duration, severity, and probability of occurrence, as well as the exposure of individuals versus groups.⁷¹ Once the relevant rights are identified and their risk significance is quantified, the findings can be visually represented using radial graphs plotting the different rights and components to show their associated risk for a given use case, as illustrated below.⁷²

AI Interpreting Facts and the Law for the Judiciary : impacts on the right to a fair trial

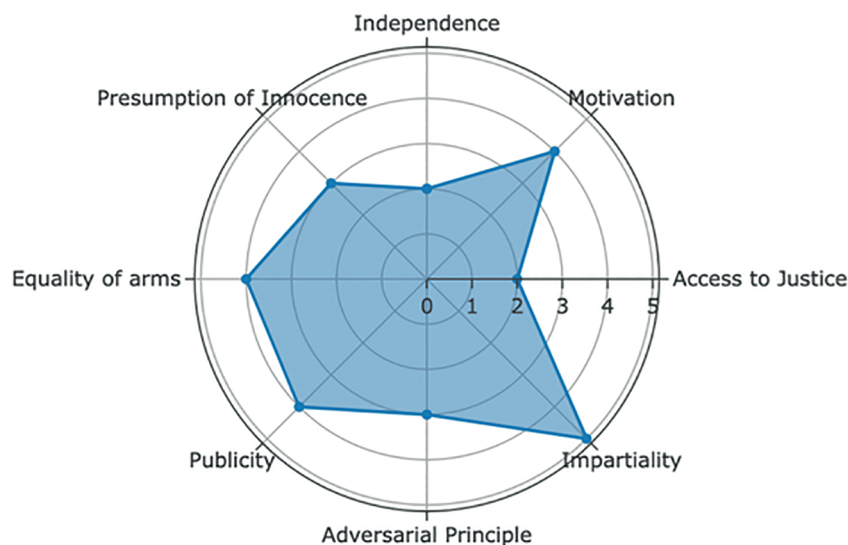


Figure 1. Mapping of the right to a fair trial

For each dimension of the right to fair trial, it becomes feasible to evaluate the effectiveness of existing metrics, performance standards, or process standards in mitigating these risks. This mapping process facilitates a comprehensive understanding of the interplay between technical tools and legal requirements and helps identify

existing gaps. Such an approach would offer guidance, firmly grounded in law and jurisprudence, to AI providers. It may also aid ongoing standardization efforts that aim to tackle the complex challenge of fundamental rights standardization.

This methodological approach describes a way to take fundamental rights seriously in the context of the technical standardization of AI. It aims to translate the legal concept of fundamental rights into actionable parameters in a technical setting, potentially leading to the development of “new machine-readable variables”⁷³ that represent relevant rights-based features and targets. If the technical standardization of fundamental rights is indeed inevitable, it is imperative that we focus on upholding these rights rigorously, rather than settling for vaguely defined ethical guidelines.■

69. AI Act, *supra* note 18, art. 6, annex III.

The Annex lists 8 high-risk domains including AI used for administration of justice and democratic processes with a list of associated use cases subject to review.

70. AI Act, *supra* note 18, annex III, para 8, point a.

71. *Ibid*, art.3.

72. The radial graph presents the different dimensions of the rights to a fair trial and their respective level of risk in the context of the use of an AI system. This graph is a visual example and does not represent the final result proposed by the methodology. Generated from Radar Chart Creator, Copyright © 2024 All Rights Reserved Barcelona Field Studies Centre S.L.

73. Hildebrandt, *supra* note 34.